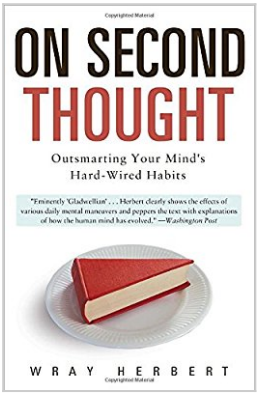

On Second Thought: Outsmarting Your Mind's Hard-Wired Habits

By Wray Herbert

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Our lives are composed of millions of choices, ranging from trivial to life-changing and momentous. Luckily, our brains have evolved a number of mental shortcuts, biases, and tricks that allow us to quickly negotiate this endless array of decisions. We don't *want* to rationally deliberate every choice we make, and thanks to these cognitive rules of thumb, we don't need to.

Yet these hard-wired shortcuts, mental wonders though they may be, can also be perilous. They can distort our thinking in ways that are often invisible to us, leading us to make poor decisions, to be easy targets for manipulators…and they can even cost us our lives.

The truth is, despite all the buzz about the power of gut-instinct decision-making in recent years, sometimes it's better to stop and say, "On second thought . . ."

The trick, of course, lies in knowing when to trust that instant response, and when to question it. In *On Second Thought*, acclaimed science writer Wray Herbert provides the first guide to achieving that balance. Drawing on real-world examples and cutting-edge research, he takes us on a fascinating, wide-ranging journey through our innate cognitive traps and tools, exposing the hidden dangers lurking in familiarity and consistency; the obstacles that keep us from accurately evaluating risk and value; the delusions that make it hard for us to accurately predict the future; the perils of the human yearning for order and simplicity; the ways our fears can color our very perceptions . . . and much more.

Along the way, Herbert reveals the often-bizarre cross-connections these shortcuts have secretly ingrained in our brains, answering such questions as why jury decisions may be shaped by our ancient need for cleanliness; what the state of your desk has to do with your political preferences; why loneliness can literally make us shiver; how drawing two dots on a piece of paper can desensitize us to violence… and how the very typeface on this page is affecting your decision about whether or not to buy this book.

Ultimately, *On Second Thought* is both a captivating exploration of the workings

of the mind and an invaluable resource for anyone who wants to learn how to make smarter, better judgments every day.

From the Hardcover edition.

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Editorial Review

Review
"Eminently "Gladwellian"...Herbert clearly shows the effects of various daily mental maneuvers and peppers the text with explanations of how the human mind has evolved." ***—Washington Post***

"Brings a twist [to the psychology shelf]...could keep us from making mistakes whose consequences range from dying in an avalanche to failing to follow directions because we don't like the font they're written in." **—Sharon Begley, *Newsweek***

"Think twice before you trust your gut...Herbert uses real-world examples and cutting-edge research to show how heuristics--hardwired mental shortcuts we think of as intuition--can both help and hinder the decisions we make every day." ***—US News & World Report***

“Counters the argument set forth in titles like Malcom Gladwell's *Blink*… **successfully shows readers how ancient shortcuts can impact our modern living and how to use this knowledge to make better decisions**.” ***—Library Journal***

“Wray Herbert displays his gifts as a science writer par excellence…*On Second Thought* goes a long way toward leveling the mental playing field by outing the hidden power of our unconscious mental models.” **—Daniel Goleman, author of *Emotional Intelligence***

"There is one way to be rational, and many ways of being irrational. With stories, anecdotes, and studies, Wray Herbert takes us through a guided tour of our many irrational tendencies, holding our hand, and helping us to see the mistakes we all make every day."**—Dan Ariely, author of *Predictably Irrational***

“A wonderful book that should be read by the public and experts alike…the most complete statement currently available on the foibles manifest in everyday decision-making and surely one of the most interesting books that I have had the pleasure of reading." **—Ellen Langer, author of *Mindfulness***

“Wray Herbert is one of our finest writers of psychological science…here he blends the most fascinating findings from cognitive psychology with his own experiences into a seamless story of the mental biases and quirks that help us navigate through life—and occasionally get us stuck in brambles. On second thought . . . I’d say the same thing.”
—Carol Tavris, coauthor of *Mistakes Were Made*

“A fascinating and important book that reveals the invisible errors we make time and again… don’t tackle any big adventures or major undertakings until you’ve read *On Second Thought*. It could save your nest egg, your relationship, and even your life. No kidding!”**—Sarah Susanka, author of *The Not So Big Life***

“From ‘looming maladaptive style’ to the ‘cooties heuristic,’ Wray Herbert takes us on a journey through the styles of thought we usually take for granted. In clear and lively prose, he describes psych experiments and real-life quandaries that reveal how our cognitive habits get in our way – or, occasionally, save our skins. It all adds up to a fascinating book that is altogether a treat. **—Robin Marantz Henig, author of *Pandora's Baby: How the First Test Tube Babies Sparked the Reproductive Revolution***

From the Hardcover edition.

About the Author
WRAY HERBERT has been writing about psychology and human behavior for more than 25 years, including regular columns for *Newsweek* and *Scientific American Mind*. He has also been science and health editor at *US News & World Report*, psychology editor for *Science News*, and editor-in-chief of *Psychology Today*. He currently serves as director for science communication at the Association for Psychological Science, where he writes a popular blog about the latest in psychological research. He lives in Washington, D.C.

From the Hardcover edition.

Introduction

On February 12, 1995**,** a party of three seasoned backcountry skiers set out for a day on the pristine slopes of Utah's Wasatch Mountain Range. Steve Carruthers, thirty-seven years old, was the most experienced of the group, though they were all skilled skiers and mountaineers. Carruthers had skied these hills many times and was intimately familiar with the terrain. Their plan was to trek over the divide from Big Cottonwood Canyon to Porter Fork, the next canyon to the north.

Two hours out, they met another skiing party. A storm had dropped almost two feet of new snow on the range the day before, and the two groups stood together for about five minutes, chatting about the best routes through the mountains. A couple of skiers in the other party were a bit spooked by the foggy conditions, but they all decided that they would be okay if they chose a prudent route across the lower slopes. Carruthers' party broke trail through the sparse woods of Gobbler's Knob.

Within the hour, Carruthers was dead. As the skiers headed across a shallow, treed expanse, they triggered an avalanche. More than a hundred metric tons of snow roared down the mountainside at fifty miles an hour, blanketing the slope and pinning Carruthers against an aspen. The other party heard the avalanche and rushed to the rescue, but by the time they dug Carruthers out, he was unconscious. He never regained awareness.

The other two skiers in Carruthers' group survived, but they faced some serious criticism back home. What were they thinking? This pass was well known as avalanche terrain, and February was considered high hazard season. The chatter in the tight-knit skiing community was that Carruthers had been reckless, that despite his experience he had ignored obvious signs of danger and tempted fate.

None of this rang true to Ian McCammon. McCammon had

known Carruthers for years, and the two had been climbing buddies at one time. Sure, Carruthers may have been a risk taker when he was younger, but he had matured. Just recently, while the two men were riding a local ski lift together, Carruthers had talked adoringly about his lovely wife, Nancy, and his four-year-old daughter, Lucia. His days of derring-do were over, he had told McCammon. It was time to settle down.

So what happened on that fateful afternoon? What skewed this experienced backcountry skier's judgment that he would put himself and his party in harm's way? Did he perish in an avoidable accident? Saddened and perplexed by his friend's death, McCammon determined to figure out what went wrong.

McCammon is an experienced backcountry skier in his own right, and a wilderness instructor, but he is also a scientist. He has a Ph.D. in mechanical engineering, and as a researcher at the University of Utah, he once worked on robotics and aerospace systems for NASA and the Defense Department. He already knew snow science pretty well, so he began reading everything he could on the science of risk and decision making. He ended up studying the details of more than seven hundred deadly avalanches that took place between 1972 and 2003, to see if he could find any commonalities that might explain his friend's untimely death.

With the rigor of an engineer, he systematically categorized all the avalanches according to several factors well known to backcountry skiers as risks: recent snowfall or windstorm, terrain features like cliffs and gullies, thawing and other signs of instability, and so forth. He computed an "exposure score" to rate the risk that preceded every accident.

Then he gathered as much information as he could on the ill-fated skiers themselves, all 1,355 of them: the makeup and dynamics of the skiing party, the expertise of the group leader as well as the others, plus anything that was known about the hours and minutes leading up to the fatal moment. Then he crunched all the data together.

His published results were intriguing. He found many patterns in the accidents, including several poor choices that should not have been made by experienced skiers. He concluded that these foolish decisions could be explained by six common thinking lapses, and he wrote up the work in a paper titled "Evidence of Heuristic Traps in Recreational Avalanche Accidents." The paper has become a staple of modern backcountry training and has no doubt saved many lives.

Heuristics are cognitive rules of thumb, hard-wired mental Shortcuts that everyone uses every day in routine decision making and judgment. The study of heuristics is one of the most robust areas

of scientific research today, producing hundreds of academic articles a year, yet the concept is little known outside the labs and offices of academia. This book is an attempt to remedy that.

Heuristics are normally helpful—indeed, they are crucial to getting through the myriad of decisions we face every day without overthinking every choice. But they're imperfect and often irrational. They can be traps, as they were in the frozen mountain pass where Carruthers perished. Much has been written in the past couple of years about the wonders of the rapid, automatic human mind and gut-level decision making. And indeed the unconscious mind is a wonder. But it is also perilous. The shortcuts that allow us to navigate each day with ease are the same ones that can potentially trip us up in our ordinary judgments and choices, in everything from health to finance to romance.

Most of us are not backcountry skiers, and we will probably never face the exact choices that Carruthers and his friends faced at Gobbler's Knob. But just because the traps are not life threatening does not mean they aren't life changing. Here are a few of the heuristics that shaped the backcountry skiers' poor choices—and may be shaping yours in ways you don't even recognize.

Consider the "familiarity heuristic." This is one of the cognitive shortcuts that McCammon identified as a contributing factor in many of the avalanche incidents he studied. The familiarity heuristic is one of the most robust heuristics known, and indeed one of the original heuristics identified and studied by pioneers in cognitive science. It is a potent mental tool that we draw on every day for hundreds of decisions, and basically what it says is this: if something comes quickly to mind, trust it. It must be available in your memory for a reason, so go with it. The basic rule of thumb is that familiar equals better equals safer.

That's a very useful rule for, say, grocery shopping. There are potentially thousands and thousands of choices that must be made every time you enter your local supermarket. But what if you actually had to make every one of those judgments, comparing every kind of yogurt and every couscous brand before making a selection? You'd be paralyzed. So instead you spot the brand of yogurt or couscous you've bought dozens of times before; you grab it, you pay for it, and you're out of there. No need to study every item on the shelf. It's also a useful rule for ER physicians, airline pilots, and soccer players—people who have to make rapid-fire decisions and are trained to quickly identify familiar patterns and react.

Heuristics are amazing time savers, which makes them essential to our busy lives. Many, like the familiarity heuristic, are an amalgam of habit and experience. We don't want to deliberate every minor

choice we make every day, and we don't need to. But there are always risks when we stop deliberating. McCammon's avalanche victims, for example, were almost all experienced backcountry skiers, and indeed almost half had had some formal training in avalanche awareness. This expertise didn't guarantee that they would make the smartest choices. Paradoxically, their expertise may have hurt them. They were so familiar with the terrain that it seemed safe—simply because it always had been safe before. It was familiar, and thus unthreatening. The skiers let down their guard because they all remembered successful outings that looked pretty much the same as the treacherous one. In fact, McCammon found in his research that there were significantly more avalanche accidents when the skiers knew the specific locale, compared to ski parties exploring novel terrain.

Most of the avalanches in our modern lives have nothing to do with snow. The familiarity heuristic (including the related fluency heuristic, discussed in Chapter 4) has been widely studied in the area of consumer choice and personal finance—and not just how we buy groceries. Princeton psychologists have shown that people are more apt to buy shares in new companies if the names of the companies are easy to read and say, which actually affects the performance of the stock in the short run. University of Michigan psychologists have shown that language (and even the typeface in which something is printed) can affect all sorts of perceptions: whether a roller coaster seems too risky or a job seems too demanding to take on. Even very subtle manipulations of cognitive familiarity are shaping your choices, big and small, every day.

So familiarity and comfort can be traps. But the fact is, Carruthers' decision making really started to go wrong long before he even started waxing his skis. It started back in the warmth of the living room, when he or one of his buddies said, "Hey, let's take a run out to Gobbler's Knob tomorrow." At that point, they triggered another powerful cognitive tool, known as the "default heuristic" or "consistency heuristic." At that point, with their adventure still an abstract notion, they no doubt discussed the conditions, the pros and cons, and made a deliberate assessment of the risks of going out. But once they made that initial decision, the cold calculation stopped. They made a mental commitment, and that thought took on power.

We have a powerful bias for sticking with what we already have, not switching course. Unless there is some compelling reason not to, we let our minds default to what's given or what has already been decided. We rely on stay-the-course impulses all the time, often with good results. Constant switching can be perilous, in everything from financial matters to romantic judgments, so we have become averse to hopping around.

But this powerful urge for steadiness can also lock us into a bad

choice. Just imagine Carruthers' ski party standing out there on the slope, chatting with the members of the other ski party. At this point, they could have made the decision to turn around and go home. Perhaps the snowpack seemed too unstable, or a certain gully looked worrisome. The skiers were no doubt taking in all this information, but they were not deliberating the pros and cons with their full mental powers because they had really already made their choice. The heuristic mind doesn't like to second-guess itself once it has momentum, and these skiers already had two hours of trekking invested in this decision. It would have taken a lot of mental effort to process all the logical arguments for turning around and going home.

So they didn't. They stuck to their plan because they were cognitively biased toward going ahead rather than switching gears. They were stubborn, but not in the way we commonly use the word to mean an obstinate attitude. Their brains were being stubborn, in the most fundamental way, right down in the neurons. We default hundreds of times a day, simply because it's effortful to switch plans. We stay in relationships that are going nowhere simply because it's easier than getting out. We buy the same brand of car our father did and hesitate to rearrange our stock portfolio. And we uncritically defer to others who make decisions for us—policy makers, who make rules and laws based on the assumption that we will act consistently rather than question. Similarly, it's safer to need an organ transplant in Paris than in New York City. You'll find out why in Chapter 20, but the short answer is that it's the default heuristic at work.

There were other heuristics reinforcing the ill-fated skiers' commitment. They probably got some additional mental nudging from what McCammon calls the "acceptance heuristic." Also known as the "mimicry heuristic," it is basically the strong tendency to make choices that we believe will get us noticed—and more important, approved—by others. It's deep-wired, likely derived from our ancient need for belonging and safety. It can be seen in the satisfaction we get from clubs and other social rituals, like precision military formations and choral singing. It's a crucial element in group cohesion, but we often apply it in social situations where it's inappropriate—or even harmful, as it was in many of the accidents that McCammon studied. His analysis showed a much higher rate of risky decision making in groups of six or more skiers, where there was a larger "audience" to please.

Then the snow itself can make skiers do senseless things. Every skier knows the phrase "powder fever," which means the unreasonable desire to put down the first tracks in freshly fallen snow. Powder fever begins with the first flakes of a long-awaited snowstorm and peaks as soon as conditions permit the first treks out. The virgin powder won't last long; everyone knows that. So for a few hours it's like gold, valuable simply because of its scarcity.

Psychologists think this “scarcity heuristic” derives from our fundamental need for personal freedom. We have a visceral reaction to any restriction on our prerogatives as individuals, and one way this manifests itself is in distorted notions about scarcity and value. Humans have made gold valuable because there is not all that much of it to go around, not because it’s a particularly useful metal. So it is with new powder, and so it is with anything else we might perceive as rare, from land to free time. Scarcity can even skew our choices of lovers and partners, if we’re not careful.

These are just a few of the heuristics you will learn about in the chapters ahead. This book is not intended to be exhaustive. Some psychologists estimate that there are hundreds of powerful heuristics at work in the human brain, some working in tandem with others, sometimes reinforcing and sometimes undermining one another. As readers will see in the chapters ahead, aspects of the arithmetic heuristic overlap with the futuristic heuristic; the cooties heuristic sometimes resembles certain visceral heuristics; and so forth. The intertwining of these powerful impulses in the mind is in fact very messy, and these tidy chapters are meant as guideposts through the messiness.

So where do these potent heuristics come from? And why, if they can be so troublesome, are they seemingly universal? Presumably these cognitive shortcuts are deep-wired into our basic neurology, although their locations in the brain are as yet unknown. What is known is that eons ago, when humans were evolving on the savannas of eastern Africa, the brain was going through all sorts of changes to help the species adapt to a shifting environment. Because that world was so full of risks, the primitive brain wired itself for action, including the ability to make very rapid choices and judgments. Many of these powerful, evolved tendencies remain in the modern mind as heuristics. They remain as potent as ever, though many are no longer adaptive to our current way of life—and lead to faulty thinking.

Here’s an example of a powerful heuristic with evolutionary roots. I have a young friend who recently applied to medical school. He really wanted to go to a particular school in Chicago, for a variety of reasons, both academic and personal. But knowing that this school was one of the most competitive med schools in the country, he applied to six schools. They were all excellent schools, but he had a clear favorite.

He got accepted to his number one pick. But, surprisingly, he was rejected by all of the others. How did he feel? Well, logically, he should feel deliriously happy. He just got into one of the top-notch med schools in the nation; more important, it was the very one he wanted most. The rejections should be totally irrelevant to him at this point. But he wasn’t deliriously happy. He was disappointed and hurt. Even though he knew the rejections were meaningless, even though his reasonable mind wanted to focus on his success and celebrate, he

couldn’t shake the feelings of disappointment and resentment.

Psychologists talk about our negativity bias, which is another perilous form of heuristic thinking. Over eons of human evolution, we as a species learned to focus on the negative, because if we didn’t, we died. It was essential to stay alert to the dangers and threats in our world—predators, poisons, competitors in the tribe. This tendency became deeply ingrained in our psyche, where it remains. But negativity isn’t always effective in our lives today—at least not in the lifesaving manner it once was. Indeed, the opposite is often true. We often get hung up on meaningless negative events and details of life, and that distracts us from the real business of life, including being happy.

So some heuristics are the legacy from our ancient past. Others are products of our culture, which get passed on, learned and relearned from generation to generation. Others are rooted in our earliest experiences—the fears and needs of infancy—but shape our thinking as adults. Consider the visceral heuristic that links the physical sensation of cold and the emotion called loneliness. Infants come into the world with very primitive needs and desires. They seek comfort and safety. These needs become a basic, internal “idea,” a kind of heuristic foundation onto which others are added with time and experience.

Psychologists call this “cognitive scaffolding.” We layer more complex social behavior and thought on top of the more primitive systems the body already has in place for survival. So, for example, the infant who seeks comfort from the cold, clinging to its mother’s body for warmth, gradually comes to associate cold with being alone, exposed, lacking support—in short, with loneliness. Eventually the concepts of cold and loneliness are so tightly entwined that the body and mind no longer distinguish the two kinds of experience. You’ll read more about visceral heuristics and scaffolding in Chapter 1. Many of these basic bodily heuristics are so powerful that they get embodied in the metaphors of our poetry and passed on in maxims, slogans, and fables. Recall the consistency heuristic that put the backcountry skiers in harm’s way. Strip away the academic jargon and it might be phrased: “Don’t change horses in midstream.” This powerful bias probably emerged because it was cognitively easier and less risky to stay the course, but today it’s universal and pervasive in our lives.

So are heuristics a good thing or a bad thing? There is an energetic debate going on right now within the halls of academe on just this question. One camp argues that heuristics are the best tools in our cognitive toolbox for many complex life decisions, precisely because they are so fleet and efficient. According to this view, it is simply impossible to calculate the best answers all the time, to use what’s called “balance sheet reasoning” with columns of plusses and minuses

totaling up. The opposing camp views heuristics as traps and biases, outdated and maladaptive rules that cause bad choices more often than not in the modern world.

This book will not resolve that academic dispute. Instead it stakes out a middle ground that other academic psychologists call "ecological rationality," which simply translates this way: Heuristics are neither good nor bad all the time. What's good or bad is the fit. Sometimes life demands heuristic thinking, and other times it can be perilous. The trick of modern living is in knowing what kind of thinking best matches the challenge at hand. It's all about getting the balance right, and this book is a guide to achieving that balance.

Heuristics are one of the major ideas to come out of cognitive psychology in the past decades, and the idea goes hand in hand with another: the dual-processor brain. This is not the split brain you learned about in high school, with its left and right hemispheres dedicated to different tasks. The exact anatomy of the dual-processor brain is still being worked out, and won't be discussed much in this book. What's important to know is that the human mind has two very different operating systems. One is logical, slow, deliberate, effortful, and cautious. The other—much older and more primitive—is fast and impressionistic, sometimes irrational. That's the heuristic mind.

We constantly switch back and forth between rational thought and rash judgment. Sometimes we have no control over our thinking. If we are overtired, mentally depleted, our brain switches automatically to its less effortful mode; it's just too difficult to crunch a lot of information and sort it intelligently if we—literally—lack the fuel for thinking. We also default to our heuristic brain if we are under stress or time pressure, or if we are trying to do too many things at one time. Indeed, multitasking is the perfect example of our brain toggling between rash and rational—and our tendency to make mistakes as we multitask is a good illustration of our limits in doing so. Here is a metaphor that captures both the virtues and the imperfection of heuristic thinking: packing the car trunk for a summer beach vacation. You know how much stuff you need for the beach: folding metal chairs, umbrellas, balls, and plastic buckets. And it's not like packing a rectangular box full of rectangular objects, like books. Beach things are irregular and the trunk itself is curved and oddly configured. So how do you pack it the best way? What's the optimal strategy? Most people will rely on heuristic thinking.

The word *heuristic* comes from philosophy by way of computer science. It's based on the Greek verb that means "to find." Computer scientists realized early on that some problems are too complex even for high-powered computers. These problems might have perfect solutions, but the computers would have to crunch away for weeks or months or years to figure them out. Consequently, computer scientists

used shortcut algorithms that produce good-enough solutions in a reasonable time. As with those computer programs, our natural heuristics offer us a trade-off: we accept some imperfection in our decisions for the practicality of getting the job done.

So there are many, many ways to pack that car trunk, and some people will spend a lot of time trying to arrive at the optimal method. They'll spread everything on the lawn, then start methodically arranging the contents, large items first, filling in the nooks with smaller pieces. The solution will never be perfect: those folding chairs will always be an annoyance to these people.

Psychologists call these people "optimizers." The world is divided into optimizers and the rest of us—whom psychologists call "satisficers." *Satisficing* is just a Scottish colloquialism for *satisfying*, but it has that added sense of "good enough," as in satisfying enough to suffice. Satisficers (and I count myself here) can't be bothered with optimal solutions; they're way too difficult and time-consuming. You can't simply toss the beach stuff in capriciously, because it won't fit that way. But you don't fuss either, because once you slam that trunk closed and start driving, you won't even see it.

Obviously there are times when optimizing is essential. If you are designing a skyscraper and need to know precisely how much weight a beam will carry, you can't settle for a good-enough answer. But for many of life's problems, satisficing does fine. The trick is in knowing when to be deliberate and calculating and when to choose speed over perfection. It's all in the fit.

Think about the simple act of driving a car. I live in a big city, and I have lived here for a long time, so I know my way around. As a result, I don't have to plot out my routes to most familiar places, and I don't need maps. I simply start up the engine; then I arrive at my destination. I have little or no recollection of making any deliberate choices in between. I didn't have to think about turning right here, negotiating a traffic circle, using my indicator light, shifting gears, braking. I may even have switched radio stations and carried on a conversation during the drive. It was all automatic and unconscious.

That's good. More than good—absolutely necessary. What a drag life would be if you had to think about every minor step in driving your car to the grocery store. But what if a four-year-old child darts out into traffic, right in front of the car? If I'm lucky, I switch instantaneously back to the here and now. I am fully alert, and my focused, attentive mind trumps all those heuristic processes that add up to what we call cruise control. This is the brain toggling, but it's more of a jolt than a toggle. It's an emergency brain switch, and people who have experienced such incidents report having a flood of memories, many totally irrelevant. That's because when we're on automatic, we

disengage not only our attention but our memory and just cruise. The sudden reengagement of those conscious processes floods the brain with detail—the stuff of focused decisions.

Now think of another kind of driving that's a completely different cognitive experience: snow driving. I learned to drive in northeastern Pennsylvania, where driving implicitly acknowledges the dual-processor brain. Learning to handle a car is a two-step ordeal in that region. In the late spring or summer, when the weather is fair, you learn to drive the usual way, steering and braking and working the clutch and gears and so forth. Then, when winter sets in, you learn snow driving. The state gives you a license for learning the regular stuff, but being a skillful snow driver carries infinitely more weight in the community: being unable to handle yourself and your car in nasty weather is a moral failure.

I learned the fundamentals of snow driving in the parking lot of the Acme supermarket on a cold Sunday. My father took me there after three or four inches of snow had fallen, when the macadam surface was slick, and told me to drive recklessly: accelerate and brake hard, make sharp turns, left then right. It was all to get the feel for a car on snow, sliding and correcting, sliding again. "What you've got to learn," he said, "is to turn into the skid."

I did learn it, but it's not intuitive. When your back wheels hit a slick patch and skid—to the right, let's say—most people's gut reaction is to correct by turning hard left, away from the skid. It's wired into our neurons, and we do it automatically, without thinking—heuristically. But it's wrong. Doing that just makes the skid worse. As my father said, you need to turn into the skid, which means turning right when it feels wrong.

Turning into the skid means trumping our heuristic impulses. Inept snow driving can land you in the body shop, or worse. But many of our everyday decisions and choices and judgments have profound and lasting consequences. This book is about defusing our misguided heuristic impulses, and in that sense it's a how-to book. The best way to rein in bad thinking is to recognize it, because once we recognize faulty thinking, we are capable of talking ourselves into better thinking. We have the power to engage the more deliberate and effortful part of our brain, and that process starts with understanding the heuristic brain in action. Let's begin.

From the Hardcover edition.

Users Review

From reader reviews:

Carlo Young:

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