

Book Review

How We Decide

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Author: **Jonah Lehrer**

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On the day that I made one of the biggest decisions of my life (to support and fight for the “no artificial nutrition and hydration through an invasive procedure” clause of my mother’s living will), I bought *How We Decide* at Newark Liberty Airport in route to a hospital in Florida. I wanted something to read on the plane and, given the circumstances of the trip, was at a unique teachable moment to learn about the decision-making process. Upon completion of the book a month later, I was not disappointed. I learned a lot about how the human brain works, better understood how I personally make decisions, and learned many useful applications for financial counseling and education.

How We Decide is a 302-page book that contains eight chapters and 20 pages of extensive endnotes with complete citations for dozens of research studies and historical events. It intertwines technical details about brain functioning (can you say amygdala?) with descriptions of real life case examples that illustrate what people do right and wrong when they make major life-changing decisions as well as everyday ones. The author, Jonah Lehrer, is a contributing editor at *Wired* magazine with an area of expertise in neuroscience. He also writes a blog called “The Frontal Cortex.”

Topics discussed in the eight chapters of *How We Decide* are quite diverse but all connect to a central theme: how the human brain works and how people can use their brains and emotions effectively to make good decisions. Readers are provided with interesting stories that include NFL football players and television soap operas (Chapter 1), military war maneuvers and research with monkeys

(Chapter 2), Parkinson’s disease research and a television game show (Chapter 3), a brave and smart firefighter and television focus groups (Chapter 4), performers and athletes who “choke” (i.e., fail to perform) and the dangers of over-thinking (Chapter 5), a notorious psychopath and autism (Chapter 6), political pollsters and the Arab-Israeli war (Chapter 7), and a successful physicist turned World Series of Poker player and decisions made by car buyers (Chapter 8).

As I often do with books that are not directly about personal finance topics, I look for applications for financial counseling, education, and research. The author provided a number of financial illustrations of decision-making concepts and suggested many others. The remainder of this review discusses some important financial decision-making insights. One of the baseline concepts to understand first, however, is that much of what people think is really driven by their emotions. The assumption of human rationality is flawed. Secondly, one of the crucial ingredients in successful decision-making is the ability to learn from one’s mistakes.

Lehrer notes that the human brain has a built in defect. People try to perceive patterns in a series of events, but patterns do not actually exist. There can be strong financial consequences such as perceiving predictable patterns in erratic stock market fluctuations. The stock market is a classic example of a random system, which means that the past movement of any particular stock cannot be used to predict its future movement.

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The topic of financial temptation is also discussed. According to Lehrer, credit cards “cause people to make stupid financial choices. They make it harder to resist temptation, so people spend money they don’t have” (p. 85). Loss aversion is a common behavioral finance trait. When people buy something with cash, the purchase involves an actual loss, i.e., money out-of-pocket. Credit cards, on the other hand, make transactions abstract so people do not feel the loss associated with spending money.

Automatic savings plans, such as the empirically tested *Save More Tomorrow* (SMT) program, take human irrationality into account. Employees are asked to opt into savings plans that begin in a few months and include automatic savings escalation features. Workers can make decisions about the future without experiencing losses in the present. SMT works because it bypasses the impulsive emotional side of the human brain.

Another interesting section of *How We Decide* is the discussion of “marshmallow studies.” Research by Walter Mischel and colleagues, originally begun in the 1970s and published two decades later, used marshmallows as a test of self-control with four-year olds. A strong correlation was found between waiting for a second marshmallow (or quickly eating just one) and the children’s future behavior. The children who waited were found to be better at using reason to control their impulses, which suggests that patience and self-control may be important skills requiring instruction by financial educators.

Behavioral finance concepts were sprinkled liberally throughout the book. A very common example of the behavioral finance error of anchoring is sticker price labels at a car dealership. The mind uses sticker prices as a reference point so the brain is convinced that any lower amount is a bargain. In another discussion of shopping, Lehrer describes how it is no accident that retailers place coveted items (e.g., high definition televisions) in prominent places and distribute free samples. Their objective is to prime the pleasure center of the brain and make people lust after things they do not need.

Another common error discussed in *How We Decide* is the “sin of certainty.” “People feel good when they are certain and confident and have a tendency to cherry pick information they want to follow” (p. 209). This close-mindedness can lead to serious errors in judgment when people dismiss dissonant possibilities too quickly and ignore relevant data. It is possible to avoid the certainty trap by creating

decision-making environments that help people entertain competing hypotheses.

Lehrer describes in detail how emotions affect decisions. People in good moods are significantly better at solving problems that require insight than people who are cranky and depressed. Researchers speculate that when the brain is not preoccupied with managing a person’s emotional life, it is easier for people to solve problems at hand. These findings suggest a need to foster optimistic thinking patterns in financial education programs and to refer clinically depressed clients to appropriate mental health services for assistance.

In addition to optimism, another important life skill to teach people is the ability to embrace uncertainty. Lehrer notes “hard problems rarely have easy solutions” (p. 247) and “pretending that the mystery has been erased results in the dangerous trap of certainty. You are so confident you’re right that you neglect all the evidence that contradicts your conclusion” (p. 247). The author also notes that bad decisions happen when mental debate is cut short. I could not help but to think how this applies to many people who are electing to receive Social Security benefits at age 62 instead of waiting for a higher unreduced benefit a few years later. How many of them have thoroughly explored the implications of this decision on their future financial security and, if applicable, on that of their spouse or partner?

Lehrer describes two ways to help ensure that the certainty trap does not interfere with sound judgment. The first is to always entertain competing hypotheses by forcing yourself to interpret the facts of a situation through a different, maybe uncomfortable, perspective. The second is to continually remind yourself of what you do not know about a situation. Lehrer quotes General Colin Powell’s astute advice: “Tell me what you know. Then tell me what you don’t know, and only then can you tell me what you think. Always keep these three separated” (p. 248).

As noted briefly above, the human brain accumulates wisdom through trial and error. Thus, financial educators and counselors may want to facilitate discussion of lessons learned through experience. One person’s story may be able to help someone else. Lehrer notes that once you have developed expertise in an area through time and practice, it is important to trust your emotions when making decisions in that domain. “It is feelings that capture the wisdom of experience,” he explains (p. 249).

How We Decide does a great job of explaining limitations of the human brain. For example, it can only handle about seven pieces of data at any one moment. An implication for financial education is the presentation of data for decision-making to clients or students. As many financial practitioners have undoubtedly experienced, “a wealth of information creates a poverty of attention” (p. 159). In other words, too much information can interfere with understanding which can lead to poor decisions or lack of action. To mitigate this problem, practitioners need to implement strategies to boil down information or present it in manageable “chunks.”

Right after I finished *How We Decide*, I read an article about decision-making in *Money* magazine that described a great approach for processing complex data. Sheena Iyengar, a Columbia University business professor, recommended the “three-by-three rule” where complex decisions are presented in a series of three stages that each contain three choices. The decision that is made in a previous stage is used to frame the choices that are presented in the next stage.

Lehrer provides additional insights into decision-making errors in a final section of *How We Decide* titled “Coda.” He discusses the topic of pilot error. Between 1940 and 1990, about 65% of plane crashes were due to mistakes made by pilots. After 1990, pilot error rates dropped dramatically with the introduction of state-of-the-art flight simulators that allowed pilots to practice what they had learned so they knew what to do during a real catastrophe (e.g., think Captain Sully landing in the Hudson River).

Another crucial factor in the dramatic decline in pilot error was the development of a decision-making strategy called Cockpit Resource Management (CRM). The goal of CRM is to create an environment where a diversity of viewpoints are encouraged and freely shared. CRM has been credited with saving numerous lives in various airline disasters and is also used by hospitals to avoid surgical errors. Instead of one person (e.g., a pilot or a surgeon) calling all the shots and intimidating others, teams of co-workers are expected to work together and constantly communicate with one another.

I could not help thinking about how many financial problems are the result of communication flaws that could use a little CRM. I also felt a sense of peace when I read this section knowing that my decision regarding my mother’s living will was discussed thoroughly with my brother, an aunt, and my mother’s best friend. We essentially practiced “family

CRM”, and having their insights and support helped inform my decision, which we all believed to be the right one. In addition, my mother had clearly communicated her wishes regarding end-of-life health care years before. When people select health care proxies, executors, attorneys-in-fact, and other surrogates to stand in for them, it is important to talk with them and educate them to make the best decisions possible, often under difficult circumstances.

How We Decide is a valuable resource for financial counselors and educators who want to get into the head of their clients or students and learn what makes them tick. The book is carefully researched and contains summaries of dozens of neuroscience, behavioral finance, and human behavior studies. Technical scientific terms such as amygdala (a brain region that, when excited, evokes negative feelings), prefrontal cortex (a brain region associated with rational planning), and insula (an emotional brain area), and more are carefully explained.

After I wrote this review, I read another review of *How We Decide* that was published in the *New York Times*. The review correctly pointed out that the book is basically silent about decisions involving interpersonal relationships (e.g., deciding who to marry or whether or not to have children). I agree that information about key personal decisions in life would have been a valuable addition to *How We Decide*, which focuses mainly on decisions made as consumers and investors. Another feature that could have been useful is a bulleted summary of implications or action steps at the end of each chapter to help readers digest all of the technical information that is provided.

Readers are pretty much left to draw their own applications of the book’s content for personal and/or professional use. Lehrer did clearly provide one take-away idea at the end of the last chapter, however: “If you’re going to take only one idea away from this book, take this one. Whenever you make a decision, be aware of the kind of decision you are making and the kind of thought process it requires. The best way to make sure that you are using your brain properly is to study your brain at work, to listen to the argument inside your head” (pp. 249-250). In other words, think about how you are thinking to make better decisions.