

Can We Learn to Avoid Cognitive Errors?

Behavioral finance scholars often express skepticism about their own and others' ability to avoid cognitive errors. Indeed, Daniel Kahneman, who, along with Amos Tversky, identified most of the cognitive errors we know, said that despite his decades of studying decision-making, he still committed the same cognitive errors as everyone else. "Knowing is not avoiding," he famously said, adding that we are much better at identifying cognitive errors in others than in ourselves.

In 2012, I was part of a panel at the Investment and Wealth Institute (then IMCA) that interviewed Kahneman for the Masters Series of the *Journal of Investment Consulting*. I learned that Kahneman's views are more nuanced and optimistic than his seemingly pessimistic "knowing-is-not-avoiding" statement. Moreover, professors and financial advisors who know cognitive errors can help students and clients avoid them.

Common Cognitive Errors in Investing and How Investors Can Avoid Them

First, a few words about cognitive shortcuts and errors. Cognitive shortcuts are part of the intuitive "blink" System 1 in our minds, leading to good choices in most of life. But shortcuts turn into errors when they mislead us into poor choices.

System 2, the reflective "think" system in our minds, leads to better choices when System 1 misleads. People with knowledge of human behavior and financial facts use cognitive shortcuts correctly, whereas those lacking such knowledge commit cognitive errors when they employ them. We know cognitive shortcuts also as cognitive rules-of-thumb and as cognitive heuristics.

There is no uniform list of cognitive shortcuts and associated errors, and not all cognitive shortcuts and associated errors are distinct from one another. Moreover, the cognitive errors on many lists are tainted by hindsight errors. Action is faulted as a "jumping-to-conclusions" cognitive error once we know, in hindsight, that having refrained from action would have brought a better outcome, whereas having refrained from action is faulted as a "status-quo" cognitive error once we know, in equal hindsight, that action would have brought a better outcome.



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The most relevant cognitive shortcuts and associated errors in finance include framing, hindsight, confirmation, anchoring and adjustment, representativeness, availability and confidence.

In the 2012 interview with Kahneman, I asked:

“In your most recent book, ‘Thinking, Fast and Slow,’ you talk about the organizing principles of System 1 and System 2. I spoke to a group of wealthy investors and business owners some months ago, noting the need to check intuition against the rules of science. One participant said he still trusts his gut more than scientific evidence. How can we persuade people to check their intuition? And should we persuade people to check their intuition?”

Kahneman answered:

“I don't know that you can persuade everybody. The confidence that people have in their intuitions is a genuine feeling; it is not an opinion. You have the immediate feeling that your thinking is right, that your intuitions are valid, and it's like something you see, an illusion. People are very resistant to changing their minds about their cognitive illusions. We're much more willing to accept visual illusions, but people really resist when you tell them that their thinking in a certain way is an illusion. It's very difficult to convince them.”

Later in the interview, Kahneman said:

“Most actions involve both systems. That is, System 1 quite often is the one that originates an idea or an impulse for an action. Then System 2 quite often endorses it without checking sufficiently. That happens a great deal; in addition, System 2 quite often lacks the necessary knowledge. So, you can slow yourself down, but mobilizing System 2 won't do anything for you if you don't have the tools to understand the situation. Slowing down is good when it allows you to deal with a situation more intelligently. Slowing down won't help when you are out of your depth.”

The last point deserves special emphasis. Slowing down does little good if you lack the necessary scientific knowledge and tools. For example, you may need large samples and tools to analyze them, such as regression analysis.

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I asked:

“The people to whom I spoke were members of families who had established very successful businesses. I was wondering whether their experience had involved one or two decisions that went spectacularly well, which persuaded them to believe in a version of the law of small numbers. (The belief in the law of small numbers is a manifestation of the representativeness shortcut when it turns into a representativeness error. We are correct when we draw conclusions from a large sample. But we tend to draw conclusions from small samples, and these are frequently erroneous.)”

Kahneman answered:

“Absolutely. It's very clear that it doesn't take very much for people to think that there is a pattern, and it doesn't take many successes for people to think that they are very, very smart, and it doesn't take many successes for others to think that a successful person has been very smart. People can be lucky, and that will feed into overconfidence. But even without luck, people are prone to overconfidence.”

Overconfidence, Fees and the Cost of Trying to Beat the Market

I asked:

“By one reliable estimate, U.S. investors would save more than \$100 billion each year if they switched to low-cost index funds. ... Why aren't they more sensitive to the fees involved?”

Kahneman answered:

“I think that most people believe they are in the market to beat the market. If they are planning to beat the market, they are willing to pay some price. If, in your imagination, you're going to beat the market by a lot, then you become insensitive to fees.”

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Later, commenting on investors' attraction to high-fee investment strategies, Kahneman said:

“This is clearly overconfidence at work, and to some extent, the people who are selling these services are themselves overconfident. I had a marvelous experience many years ago with a financial advisor, whom I actually left – well, I had already left him when we had this conversation. I had moved to a safer line of investments, and he called me and said, ‘Look, what you are doing is stupid. We could make a lot of money for you. You are limiting your gains to a fixed amount, and last year we had several funds that did so much better than that amount.’ Then I looked back at the letter he had written me a year earlier, in which he recommended specific funds. None of the funds he had recommended was among those that actually made a lot of money a year later. But he didn't know it.”

This story is most important because it shows that Kahneman learned to overcome cognitive errors. Specifically, he used the scientific method to overcome hindsight errors. He did it by comparing what the advisor knew in foresight, a year earlier, to what the advisor thinks he knew in foresight but actually knew only in hindsight.

So, Kahneman was too modest when he said that, despite decades of studying decision-making, he still made the same cognitive errors as everyone else.

In reality, his knowledge allowed him to avoid cognitive errors by properly engaging System 2 and relying on science.

Knowing Is Not Avoiding

The important takeaway is that, while simply being aware of cognitive errors isn't enough to overcome them (“knowing is not avoiding”), we are also not incapable of avoiding them with the proper knowledge, systems or support.

For some, this might mean recognizing their own tendencies and gaining the knowledge necessary to proactively create an environment that limits their ability to fall victim to emotions in the future.

For others, like investors saving for a better future, it might mean seeking guidance from a financial advisor who offers the coaching needed to help them recognize potential cognitive errors and make better financial decisions.