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Why Smart People Are Stupid

Posted by [Jonah Lehrer](#)

Editors' Note: The introductory paragraphs of this post appeared in similar form in an [October, 2011, column](#) by Jonah Lehrer for the Wall Street Journal. We regret the duplication of material.



“I know so much that I don’t know where to begin.”

Here’s a simple arithmetic question: A bat and ball cost a dollar and ten cents. The bat costs a dollar more than the ball. How much does the ball cost?

The vast majority of people respond quickly and confidently, insisting the ball costs ten cents. This answer is both obvious and wrong. (The correct answer is five cents for the ball and a dollar and five cents for the bat.)

For more than five decades, Daniel Kahneman, a Nobel Laureate and professor of psychology at Princeton, has been asking questions like this and analyzing our answers. His disarmingly simple experiments have profoundly changed the way we think about thinking. While philosophers, economists, and social scientists had assumed for centuries that human beings are rational agents—reason was our Promethean gift—Kahneman, the late Amos Tversky, and others, including Shane Frederick (who developed the bat-and-ball question), demonstrated that we’re not nearly as rational as we like to believe.

When people face an uncertain situation, they don’t carefully evaluate the information or look up relevant statistics. Instead, their decisions depend on a long list of mental shortcuts, which often lead them to make foolish decisions. These shortcuts aren’t a faster way of doing the math; they’re a way

of skipping the math altogether. Asked about the bat and the ball, we forget our arithmetic lessons and instead default to the answer that requires the least mental effort.

Although Kahneman is now widely recognized as one of the most influential psychologists of the twentieth century, his work was dismissed for years. Kahneman recounts how one eminent American philosopher, after hearing about his research, quickly turned away, saying, “I am not interested in the psychology of stupidity.”

The philosopher, it turns out, got it backward. A [new study](#) in the *Journal of Personality and Social Psychology* led by Richard West at James Madison University and Keith Stanovich at the University of Toronto suggests that, in many instances, smarter people are *more* vulnerable to these thinking errors. Although we assume that intelligence is a buffer against bias—that’s why those with higher S.A.T. scores think they are less prone to these universal thinking mistakes—it can actually be a subtle curse.

West and his colleagues began by giving four hundred and eighty-two undergraduates a questionnaire featuring a variety of classic bias problems. Here’s an example:

In a lake, there is a patch of lily pads. Every day, the patch doubles in size. If it takes 48 days for the patch to cover the entire lake, how long would it take for the patch to cover half of the lake?

Your first response is probably to take a shortcut, and to divide the final answer by half. That leads you to twenty-four days. But that’s wrong. The correct solution is forty-seven days.

West also gave a puzzle that measured subjects’ vulnerability to something called “anchoring bias,” which Kahneman and Tversky had demonstrated in the nineteen-seventies. Subjects were first asked if the tallest redwood tree in the world was more than X feet, with X ranging from eighty-five to a thousand feet. Then the students were asked to estimate the height of the tallest redwood tree in the world. Students exposed to a small “anchor”—like eighty-five feet—guessed, on average, that the tallest tree in the world was only a hundred and eighteen feet. Given an anchor of a thousand feet, their estimates increased seven-fold.

But West and colleagues weren’t simply interested in reconfirming the known biases of the human mind. Rather, they wanted to understand how these biases correlated with human intelligence. As a result, they interspersed their tests of bias with various cognitive measurements, including the S.A.T. and the [Need for Cognition Scale](#), which measures “the tendency for an individual to engage in and enjoy thinking.”

The results were quite disturbing. For one thing, self-awareness was not particularly useful: as the scientists note, “people who were aware of their own biases were not better able to overcome them.” This finding wouldn’t surprise Kahneman, who admits in “Thinking, Fast and Slow” that his decades of groundbreaking research have failed to significantly improve his own mental performance. “My intuitive thinking is just as prone to overconfidence, extreme predictions, and the planning fallacy”—a tendency to underestimate how long it will take to complete a task—“as it was before I made a study of these issues,” he writes.

Perhaps our most dangerous bias is that we naturally assume that everyone else is more susceptible to thinking errors, a tendency known as the “bias blind spot.” This “meta-bias” is rooted in our ability to spot systematic mistakes in the decisions of others—we excel at noticing the flaws of friends—and inability to spot those same mistakes in ourselves. Although the bias blind spot itself isn’t a new concept, West’s latest paper demonstrates that it applies to every single bias under consideration, from anchoring to so-called “framing effects.” In each instance, we readily forgive our own minds but look harshly upon the minds of other people.

And here’s the upsetting punch line: intelligence seems to make things worse. The scientists gave the students four measures of “cognitive sophistication.” As they report in the paper, all four of the measures showed positive correlations, “indicating that more cognitively sophisticated participants showed larger bias blind spots.” This trend held for many of the specific biases, indicating that smarter people (at least as measured by S.A.T. scores) and those more likely to engage in deliberation were slightly more vulnerable to common mental mistakes. Education also isn’t a savior; as Kahneman and Shane Frederick first noted many years ago, more than fifty per cent of students at Harvard, Princeton, and M.I.T. gave the incorrect answer to the bat-and-ball question.

What explains this result? One provocative hypothesis is that the bias blind spot arises because of a mismatch between how we evaluate others and how we evaluate ourselves. When considering the irrational choices of a stranger, for instance, we are forced to rely on behavioral information; we see their biases from the outside, which allows us to glimpse their systematic thinking errors. However, when assessing our own bad choices, we tend to engage in elaborate introspection. We scrutinize our motivations and search for relevant reasons; we lament our mistakes to therapists and ruminate on the beliefs that led us astray.

The problem with this introspective approach is that the driving forces behind biases—the root causes of our irrationality—are largely unconscious, which means they remain invisible to self-analysis and impermeable to intelligence. In fact, introspection can actually compound the error, blinding us to those primal processes responsible for many of our everyday failings. We spin eloquent stories, but these stories miss the point. The more we attempt to know ourselves, the less we actually understand.

Drawing by James Stevenson.

Note: This article has been modified to include mention of Shane Frederick.