

Uncommon Sense: Toward an RQ Test?

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We all know people who are highly intelligent but not very smart. These people get good grades in school, ace a lot of tests, and often succeed professionally. But they nevertheless hold irrational beliefs and do a lot of foolish things. Such people almost certainly have high IQs, but IQ scores do not reflect their particular form of cognitive deficit. Indeed, these people seem to be unable to think and act rationally *despite* their high intelligence.

University of Toronto psychological scientist Keith Stanovich has a name for this disability. He calls it “dysrationalia,” and he has spent the last several years trying to define the nature of this common deficit. He gave an overview of dysrationalia at this week’s meeting of the Association for Psychological Science in Washington, DC.

Consider this mental problem: “Jack is looking at Anne, but Anne is looking at George. Jack is married but George is not. Is a married person looking at an unmarried person?” Is the answer yes or no, or can the answer not be determined?

Most people conclude that they don’t have enough information to solve this problem, even though the correct answer—yes—can be arrived at fairly easily. The only person whose marital status we don’t know is Anne, so let’s try it both ways. If Anne is married, she is looking at unmarried George, so the answer is yes. If Anne is unmarried, and married Jack is looking at her, the answer is also yes.

This is called “fully disjunctive reasoning,” which simply means that we consider all the possibilities. But most people don’t bother to reason this out in this way, because it takes mental effort. Instead they think: I don’t know Anne’s marital status, so I don’t have enough information to solve the problem. That’s known as taking the easy way out.

The easy way, cognitively, that is. We tend to conserve cognitive energy unless we have a compelling reason to use it for deliberate reasoning. But the easy, quick inference is often—as in this example—wrong.

Stanovich uses this example and others to demonstrate one of the major causes of dysrationalia. Humans are “cognitive misers”—which means that we avoid energy-demanding computation. It’s not that we can’t do the computing, but our lazy minds would rather take short-cuts, and make misjudgments as a result.

Even highly intelligent people opt for this kind of irrational problem solving, and for others that characterize dysrationalia. When Stanovich and others have tested volunteers’ reasoning ability, they found that the most intelligent were just as miserly and irrational as the less intelligent. And it’s not just computational problems. Studies have also demonstrated a powerful “myside bias” in reasoning—that is, a tendency to reason from an egocentric perspective. For example, American volunteers will say that

dangerous cars should be banned from the road—but only if they are German-made cars. American cars with the same safety record are not judged as critically. This form of confirmation bias can lead to all sorts of untenable positions and beliefs.

In addition to these processing deficits, dysrational people also have what Stanovich calls a “mindware gap.” Mindware—a term borrowed from cognitive scientist David Perkins—refers to all the rules and procedures and strategies that we use to think rationally. This includes thinking about probabilities, hypothesis testing and other kinds of scientific thinking.

These reasoning abilities seem to be surprisingly disassociated from intelligence. Even though they can be taught and measured, students do not learn them in school and standard IQ tests do not pick them up, Stanovich says. His aim is to separate intelligence from rationality, so that, in addition to traditional IQ, we as a society can also teach and value rational beliefs and actions. Stanovich has just begun a three-year project, funded by the John Templeton Foundation, to create the first comprehensive assessment of rational thinking—what may someday be commonly called the RQ test.

Wray Herbert is reporting from the 25th annual meeting of the Association for Psychological Science in Washington, DC.