We know when we're being lazy thinkers: New study shows that human thinkers are conscious cognitive misers

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(Medical Xpress)—Are we intellectually lazy? Yes we are, but we do know when we take the easy way out, according to a new study by Wim De Neys and colleagues, from the CNRS in France. Contrary to what psychologists believe, we are aware that we occasionally answer easier questions rather than the more complex ones we were asked, and we are also less confident about our answers when we do. The work is published online in Springer's journal *Psychonomic Bulletin & Review*.

Research to date on human thinking suggests that our judgment is often biased because we are intellectually lazy, or so-called cognitive misers. We intuitively substitute hard questions for easier ones. What is less clear is whether or not we realize that we are doing this and notice our mistake.

Using an adaptation of the standard 'bat-and-ball' problem, the researchers explored this phenomenon. The typical 'bat-and-ball' problem is as follows: a bat and ball together cost $1.10. The bat costs $1 more than the ball. How much does the ball cost? The intuitive answer that immediately springs to mind is 10 cents. However, the correct response is 5 cents.

The authors developed a control version of this problem, without the relative statement that triggers the substitution of a hard question for an easier one: A magazine and a banana together cost $2.90. The magazine

costs $2. How much does the banana cost?

A total of 248 French university students were asked to solve each version of the problem. Once they had written down their answers, they were asked to indicate how confident they were that their answer was correct.

Only 21 percent of the participants managed to solve the standard problem (bat/ball) correctly. In contrast, the control version (magazine/banana) was solved correctly by 98 percent of the participants. In addition, those who gave the wrong answer to the standard problem were much less confident of their answer to the standard problem than they were of their answer to the control version. In other words, they were not completely oblivious to the questionable nature of their wrong answer. The key reason seems to be that reasoners tend to minimize cognitive effort and stick to intuitive processing.

The authors comment: "Although we might be cognitive misers, we are not happy fools who blindly answer erroneous questions without realizing it."

Indeed, although people appear to unconsciously substitute hard questions for easier ones, in reality, they are less foolish than psychologists might believe because they do know they are doing it.

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