Deeper thought can pay off

July 21, 2012 - 4:16am **JASON BROWN**

My wife and I celebrated this month anniversary number 10,011 (in binary — in normal human years it's 19).

My, how the first 10,000 went by quickly!

I took her out to dinner theatre, only to be joined by a tour bus full of seniors from Cape Breton. On the plus side, it not only makes fo a good story, but we felt exceptionally young that night.

That's the spin I put on the evening. I find with most things that it's not what occurs but how you view and analyze them that matters.

I am reading a book called Thinking, Fast and Slow by Daniel Kahneman. What Kahneman talks about is how our thought process, and ultimately our decision making, is based on two types of thinking.

One type he calls System 1, which reacts quickly and intuitively, with little effort, and System 2, which requires deeper thought, attention and concentration, one that is more analytical.

According to Kanheman , quite often our System 1 response is quick and correct but sometimes it can lead us, through biases and lazy thinking, into making rash decisions and mistakes.

Here is an example. Suppose that a loaf of bread and a doughnut together cost $1.10, but the bread costs a dollar more than the doughnut. How much does the doughnut cost?

What is your quick response? Probably, you say, the doughnut costs 10 cents, but then the bread would cost $1.10, for a total of $1.20, which is wrong.

The correct response requires some deeper thinking. The correct answer is that the doughnut costs five cents and the bread $1.05. (OK, here is how it is done: Let x be the amount that the doughnut costs. Then the bread costs $1 + x$, so the total is $x + 1 + x = 1 + 2$ which must be 1.10. An algebraic hop, skip and jump will tell you that x must be five cents.)

Now if you got the wrong answer, cheer up — over 50 per cent of Ivy League students got it wrong too. So it seems that many of us don't put in the kind of effort required, if we can think of a reasonable answer without much thought.

As a mathematician, I am trained to often think intensely about problems, which makes my decision-making procedure slower but, I hope, more accurate.

I am writing this onboard a flight from Montreal to Halifax, and it brings to mind an example of System 1 versus System 2.

Of course, the best way to board a plane is as it is always done, from the rear of the aircraft, right? Simple and obvious? Yes, and incorrect. We are biased to believe it because that is always how it is done, and it makes intuitive sense.

But some researchers have suggested it would be better to board first at window seats, then middle, then aisle seats. They found such a pattern would decrease boarding time significantly. Why do we still board the old way? System 1 thinking dies really hard.

Which brings me back to thinking about my anniversary and some System 2 advice for husbands. If you'd like to get The Girlfriend

Experience from your wife, pay attention to what she says. Do what she wants to do. In short, treat her like you did when you were dating, like she doesn't have to hang around.

Jason I. Brown is a professor of mathematics at Dalhousie University in Halifax. His research that used mathematics to uncover how the Beatles played the opening chord of A Hard Day's Night has garnered worldwide attention. He is also the author of Our Days Are Numbered: How Mathematics Orders Our Lives.

About the Author »

JASON BROWN

The ChronicleHerald
http://thechronicleherald.ca(/)