## BUSINESS INSIDER

## 3 psychological reasons why we buy lottery tickets when there's virtually no chance of winning



The Powerball jackpot prize has hit a record high of $\$ 1.5$ billion - and the prospect of taking most of it home is tantalizing even for the least moneyminded among us.

Unfortunately, your chances of winning are only about $\mathbf{1}$ in 292,000,000. In fact, it says just that on the Powerball website.

So why are millions of people rushing to buy tickets before Wednesday night's drawing?

We spoke to Robert Williams, a professor of health sciences and gambling studies at the University of Lethbridge in Alberta, who outlined three fascinating psychological phenomena that explain this irrational behavior.

We're not trying to dissuade you from entering the


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A person holds a Powerball ticket in New York. lottery, by the way. But the ideas below will help you understand why you - and most everyone else are inclined to participate.

## 1. We fall prey to the "near miss" effect.

The "near miss" effect describes what happens when you feel like you almost won and want to try again - even though you weren't even close.

Williams explained how the near-miss effect plays out in the Powerball. As mentioned above, your odds of getting all six numbers right are about 1 in 292 million.

So what are your odds of getting three out of six numbers right? You might be tempted to divide the original
number in half and say 1 in 146 million.
But you'd be wrong. They're actually about 1 in 600 . (Although even if you got three out of six numbers right, you'd only win \$7.)

The problem is that when people get half the numbers right, they think they were "so close!!!" and promptly reenter the lottery. So while they might believe that they just missed the target, the difference in probability is actually in the hundreds of millions.

## 2. Our brains haven't evolved to understand such low probabilities.

"We evolved to have some appreciation of numbers," Williams said. For example, we can easily comprehend the difference between an army of 10 soldiers versus an army of 100 or 1,000 .

Numbers beyond that, however, were never relevant throughout most of human history, Williams said. Who needed to count the millions of stars in the sky or blades of grass in a field?

That's why odds of 1 in 292 million don't sound terribly different from odds of, say, 1 in 100,000 - at least not until you stop to think carefully about it.

Certainly, the fact that your odds of winning the Powerball jackpot prize recently went from 1 in 175 million (when you had to select six numbers between 1 and 59) to 1 in 292 million has little impact on people's willingness to participate in the lottery.

