

Many a night, my wife and I sit and watch The Big Bang Theory. While Leonard and Penny romantically joust, I often turn to my wife and say, "You are living the dream," to which she replies, "Oh, it's something like a dream, that's for sure."

At that point, I turn to her and smile, knowing exactly how much she appreciates me.

Humour has always been a big part of my life, holding as much of an attraction for me as math. Often, my parents and all five of our kids would sit around and laugh at other people's funniness. After all, my mother always taught us that "if you can't laugh at others behind their backs, when can you laugh at them?"

I find there is a strong connection between mathematics and comedy. The best jokes are always the smartest ones, the ones that require the listener to fill in a few steps to get them. So, amidst the frenzy of last-minute shopping, you might want to arm yourself with a mathematical eye for laughter. Here are three principles:

- Correlation does not equal causation

Correlation occurs when there is a statistical connection between two quantities. Many people mistakenly believe that when correlation is observed, one quantity must cause the other. Often, other factors are at work.

For example, it might be observed that there is a correlation between alcohol consumption and lung cancer. But it would be wrong to conclude that drinking causes lung cancer — it is much more likely that drinking is correlated also with smoking, and that the latter causes lung cancer.

Conan O'Brien recently applied this principle brilliantly in a spot that correlated presidential infidelity with low unemployment, and concluded that "when presidents get laid, you get paid."

- Watch for hidden assumptions

To solve a mathematics problem, you have to carefully examine the underlying, hidden assumptions you make, and question whether they really hold. Throwing out such assumptions can be essential on the path to a solution.

Writers can play off the assumptions we make as readers and listeners. For example, in lyric writing, audiences expect to sympathize and empathize with the singer, and deliberately playing with this expectation can make for a great song.

Remember all the hoopla about banning Dire Straits' Money for Nothing? I think most people were missing the whole point of the clever song. We aren't supposed to commiserate (as we would expect) with the singer, who in one breath uses a homophobic slur about a rock star and then in another bemoans the fact that the star gets his "chicks for free." We are supposed to laugh at what an idiot the singer is!

And on a recent SNL skit, Alec Baldwin had a multi-layered "meta" joke, pretending to be an American Airlines pilot apologizing to the great Alec Baldwin, with part of the hilarity being directed not only at the airline but also at Baldwin, as well as at the joke itself.

- The Law of Small Numbers

There is a well-known principle in probability called the Law of Large Numbers, but Calgary mathematician Richard Guy often refers to the Law of Small Numbers, which he states as: "There are not enough small numbers to satisfy all the demands placed on them."

Simply put, with numbers that are fairly tiny, all sorts of coincidences abound, or can be made to abound. Perhaps you were

born on Dec. 12, or 12 / 12, but if you add up the digits you get 6, which might be the number of children you have.

Chains of numerics can be not only playful and funny but also magical. I suggest you search YouTube for Sidney Crosby with Shaun Majumder to hear a hilarious use of the Law of Small Numbers. (Sidney is such a good sport!)

So now, math is even funnier than you thought it was. Bazinga!

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