

The Lady Who Believes in Physics (2) by Y York

(at a bar)

No, I don't usually have a third, or a second, but today I am having a third and, who knows, a fourth, we'll have to see, won't we? Today I am in the act of altering outcomes. I know a great deal about altering outcomes. I am a physicist's assistant--which is hard to say. I am also a physicist because you have to be one when you assist one. (Proud) We are the people who first discovered the truth about altering outcomes by observing experiments. We discovered that when we peek at a particle, our little peek can be the very stimulus that turns the particle into a wave. But we'll never know for sure because we can't know and also not peek, which is to say when we know because we peeked, we also ... don't know because we peeked.

Physicists are experts in the world of the tiny. I work with things so small I can't even think about them because when I think about them, there's nothing there, and there's nothing more panic-inducing than having your thought disappear mid-think. Or no, there is something more panic inducing and that is when you find out mid-experiment that the law determining your particle's trajectory has changed. (The following is fully annoying to you) And the laws are constantly changing. If you turn your back on physics for fifteen minutes, you're obsolete. We have a computer terminal in New Haven and all it's doing is logging new information that is being discovered around the world. And there's always something coming through. There's always something new--an old law is updated or some law I've never heard of is posited. And I work at staying current because surprises in physics can be very scary.

Do you know the scariest thing about physics? Well, no we can't know the scariest thing about physics because the scariest thing about physics is always changing and that's a pretty scary thing about physics. But one of the scariest things about physics if you believe in physics

and it's kind of like believing in God, I mean there's a lot of faith in physics because you can't see any of it. One of the scariest things about physics is that it makes your dreams...real. Your nightmares actual. You really were standing naked in front of your dissertation committee. Not only that, your faculty advisor who smirked at your nakedness in the dream had that same look on his face when you ran into him in the faculty lounge. But maybe that was a dream, too.

Not only your dreams, but the dreams of others, the thoughts of others -- it matters what people think of you because...because if somebody thinks that you are an asshole that means that an atomic-particle-sized asshole of you exists, and you are in some way, albeit very tiny, an asshole.

But today all the scary things about physics have saved me. Saved my life and saved my sanity. How? I know that tiny modifications alter outcomes; a peek at an experiment; an elevated temperature, the wrong pressure—changed outcome. Having a third drink today at the bar. That's how little it takes to change an outcome.

So. When for the first time in twelve years I did not buy a lottery ticket with my same six lottery numbers that I've played every week without fail since I was 22...I hardly even blinked when I saw all six of them in a row in the daily paper. Not for a minute did I chastise myself for forgetting to buy a lottery ticket on Saturday, because I know that if I had played those winning numbers, that action would have altered the Universe just enough to change the outcome. I wouldn't have won even if I had remembered to play 2-10-15-20-47-55. (slight pause) 2-10-15-20-47-55. ...2-10-15-20-47-55. Right?