

# THE MYSTERY OF SUPERPOSITION

Through no skill of interpretation can this psi-function be turned into a passable description of a real state of affairs; in reality there is just no intermediary between exploded and unexploded.

Albert Einstein (1935)

In reality, it contains the *only* mystery.

Richard Feynman (1965)

Life is but a dream...

Malcolm McRury (2004)

Sometimes it seems like someone's slipping acid in the bottled water.

I don't watch much TV these days but today I wake up with Calamity. She stands in flaming color. Defiantly she sings or says in silence:

Row, row, row your boat...

I recall the plot. She echoes Gödel's tangled timeline. Now she mimes her line unendingly, caught in a Hickok-dying time warp. It's an eye-wig—if there's such a thing. By bus and train and street she stays with me. Somehow I know the missing voice belongs to Doris.

With my screen lit up the color fades and vies with black-on-white of Word. How to focus? What is Albert on about? He's thinking of a quantum system. Slowly, never knowing her, he shows her out. He has a pile of gunpowder that may combust. He's protesting to Schrödinger, whose math says that it must be in two states at once. The half-exploded gunpowder is Einstein's version of the famous half-dead cat. Superposition is, he says, just superstition.

Feynman too is speaking of Superposition. If physics' master explicator says that it's a mystery it must be deep. So, what is it? It's what happens when *one* particle goes through *two* side-by-side slits in a screen and gets itself together wave-like on the other side. Like that cat, the particle's a mixture of WENT-THROUGH-THE-LEFT-SLIT and WENT-THROUGH-THE-RIGHT-SLIT. That's not it exactly. The way it is is worse.

When did Frank arrive? His eyes are rolling. I get him watching the two-slit experiment on YouTube—a video that makes it clearer than I can. It has an eyeball on a stand that shows how looking turns the waves off and turns particles back on.

He reruns the video while I brief him on the way it works: A physicist picks on a something. Thinks of every way that it could get to be. Adds them all together. Here's the hook: This is the way it *is*—it is all ways it can be, all at once.

Why worry him with this? Well, if my take's right he's searching for a quantum system. And this take isn't really mine; it comes from books. There's a widespread view in physics—almost a consensus—that the universe begins with quantum rules. So for him Superposition too should be a clue. Get used to it, I tell him. If, as she says, he is looking for that same beginning his best chance is: Treat this zany place as home. My message doesn't make him happy. Don't shoot the messenger, I think at his departing back.