

60-Second Adventures in Thought

Schrödinger's Cat

Erwin Schrödinger was a physicist, a theoretical biologist and probably more of a dog person. In the nineteen-twenties, scientists discovered Quantum Mechanics, which said that some particles are so tiny; you can't even measure them without changing them.

But the theory only worked if, before you measure them, the particle is in a 'super-position' of every possible state all at the same time.

To tackle that, Schrodinger imagined a cat in a box with a radioactive particle and a Geiger counter attached to a vial of poison.

If the particle decays, it triggers the Geiger counter, releases the poison and bye bye Tiddles.

But if the particle is in two states – both decayed and not decayed – the cat is also in two states – both dead and not dead. Until someone looks in the box.

In practice, it's impossible to put a cat into a superposition.

You'd have the animal rights lobby up in arms.

But you can isolate atoms, and they do seem to be in two states at once.

Quantum mechanics challenges our whole perception of reality. So maybe it's understandable that Schrödinger himself decided he didn't like it – and was sorry he ever started on about cats.