Schrödinger's Cat Pocket Card

ThinkGeek

Schrödinger's Cat

is a thought experiment. In quantum physics, a subatomic particle can exist in multiple states at once (imagine coming to a fork in the road and going both left and right). All of these possibilities combined is a thing called quantum superposition. When the particle is observed, however, it collapses into a single state, giving us the option of left or right not some of both left and right at the same time.

To explain how difficult it is to conceive of this indeterminacy at a non-subatomic level, Schrödinger described a hypothetical experiment involving a cat. He puts the cat in an opaque box so that the cat cannot be observed. Also in the box is a flask of poisonous gas and a radioactive substance. The radioactive substance controls the flask so that when an atom decays, the gas is released. At any given moment, then, from outside the box, the cat is in a state of indeterminacy. From a theoretical perspective, it's both alive and dead at the same time... until we open the box.

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