

Cat in a Box

Physicist Erwin Schrodinger asked us to imagine that a cat is placed into a box along with some sort of radioactive substance. The radioactive substance is rigged to release itself and kill the cat if a quantum event takes place. This quantum event being the detection of a particle, or in this scenario, the opening of the box.

So, if we think of the cat like a particle, we could say that while the box was covered and the cat was not being observed, the cat must have been dead and alive in order for it to be in all of its possible states. These possible states would be its superposition. It is only when we perform our act of measurement (opening the box), will the cat's superposition collapse for it to be either dead or alive.

On a windy September afternoon, I went outside for a walk. From the other side of the road, I saw my parents. Their heads were bowed and they walked slowly. My father approached me and whispered, "Junior's sick." My stepmother stood behind him, her eyes red and raw.

I was two years old on a Christmas morning when Junior was brought home to my sister and I. In our living room hung yellow lights and stockings over the fireplace. My sister molded excess wrapping paper into soccer balls and kicked them around the room. My mother trailed behind her, picking up the excess pieces of paper, and told us to sit down. She left the room and reemerged with a box. She asked us to open it, and so we did, our tiny fingers fighting the corners of cardboard, until a blond wad of fur sprouted out and hissed at us.

Despite being the woman who shoved a kitten into a box, Junior actually favored my mother over anyone else in the family. Every time she'd lay on the couch, the sound of his paws could be heard against the hardwood floor, as he scurried to meet her and lay on whatever

blanket she was using. Once on the blanket, my mother would swaddle and rock him like a baby. After receiving a sufficient amount of attention, Junior would crawl out of her arms and curl himself into a ball, his body snug in her lap.

Five years after the Christmas we got Junior, my parents divorced. My mother moved out and bought an apartment of her own. Both of my parents thought it would be best if Junior stayed with my father since his house was bigger and had more space outside for him to roam. During this time I found it incredibly difficult to sleep in my room. The fear of being left alone was overwhelming. Many nights I'd crawl into my sister's bed where she would then kick me out. I would then walk downstairs to my dad's bedroom. That worked for a while, until my stepmother started spending the night and I couldn't do that anymore. My last option was Junior. He had always been more of an outside cat, so it was very surprising to me that he didn't immediately run back to the door the moment I forced him inside. Instead, he leaned against my leg and scratched his paws on my pajama pants, his arms stretched up like a little kid that wanted to be held. I picked him up and carried him to my room. He sharpened his claws on my blanket, kneading it as if it were dough. I swaddled him like a baby and then placed him in my lap, just like my mother used to. From that day forward, Junior always slept in my room.

As the years went by, I grew increasingly fascinated with science and physics. In a tumultuous world in which things seemed out of control, probability, laws, and explanations to mundane things gave me a sense of comfort and security. When my cat was diagnosed with lung cancer I began to think about the probability of his death and how long he had left. That time, according to the vet, was two months.

I decided to stay home when my parents took Junior to the vet for the last time. As I watched my father carry him into the car, I began to think about the physics theory of

Schrodinger's cat. How could something be superpositioned to be alive and dead at the same time? How could something so small as to be undetectable by the naked eye, have the power to kill a creature billions of times its size? Cancer and physics posed many questions left unanswered. Questions that bothered me.

Apparently they bothered Erwin Schrodinger too. Bothered him so much he devised his own explanation called the Many Worlds Theory, proposing that there are possible alternate universes where in one, the cat is alive, and in the other, the cat is dead. Perhaps another one where the cat never even existed at all. This would be the only explanation to align the absurdity of the quantum world to the tangible.

The Many Worlds Theory provided a lot of solace to me during the time of Junior's death. My family and I lived in a universe in which Junior would not beat his illness. However, it is amazing to think that there could be another universe in which Junior might've lived to be one hundred, or was born a lion, or a human, or even a plant. The possibilities are endless. So knowing this, I am forever grateful that when I opened the cardboard box that Christmas morning, I happened to exist in the same universe, and at the same time as he did.