

Futures

Everett's cat

Trick or treat? By R. P. Sand



ILLUSTRATION BY JACEY

For the first time, my sister didn't die. She was usually gone by 8 p.m., having choked on a hard candy or tumbled down the loose wooden stairs Ma always pushed Papa to fix. Or hit by a car as a witch or a fairy, her plastic pumpkin bucket bouncing away, me screaming on my knees.

"8:01" read the clock ticking above the stove, rusted metal vines framing a yellowed face. The first luxury decor item my parents had bought years before as struggling medical students. I stared at the clock hands, my limbs frozen.

"*Didi*, come on." A tug at my sleeve broke my statuesque disbelief and I glanced down at Aisha's painted whiskered face calling me 'elder sister' in Hindi. "Earth to *did*i. We gotta get the door."

Had the doorbell rung, then? I'd been so transfixed by the clock that I'd failed to register my surroundings. The sweet scent of sugar and *ghee* hit me, a pot of *gajjar halwa* on the stove – Aisha's favourite dessert. A treat from Ma

before our parents begrudgingly left for some hospital fundraiser. Aisha very graciously offered to stay home for trick-or-treaters.

"You don't need to stay home, your *did*i can take you trick-or-treating," Ma said. But the thought of a dark house and disappointed children at the door did not sit well with six-year-old Aisha, and she voluntarily gave up her candy quest on the streets of suburban Maryland.

Ma made the shredded carrot confection in one other universe when Aisha had offered to stay home, the times we chose not to order pizza or noodles, and Aisha the dinosaur had died at 7:37. It was as though each series of choices branched a new storyline. *Gajjar halwa* was here as well, yet Aisha was alive. But this was the first time she'd chosen to be a cat.

"Alright, let's go!" I said, suddenly euphoric. *She's still alive*. The other me would later wonder in retrospect why she uncharacteristically picked up and twirled Aisha as though she'd never be called *did*i again. The other me would

have no memory of my Shift, but would be left with a headache; any slight deviation in character caused physical pain. It was why I could never be saviour, only witness to Aisha's deaths.

"Stop it, you'll mess up my whiskers," growled the cat, but I simply laughed and carried her to the foyer, grabbing a fruit bowl of candies on the way.

I opened the door to three teenagers: a nurse, the Joker and Batman.

"Trick or treat," said Batman, attempting a husky voice. His companions giggled. They couldn't have been much older than the other me at 13, but I couldn't recognize them. The conscious me was 25, and I could barely remember the faces during my own middle-school years. Then again, those years were a discombobulated haze; my classmates hadn't known how to handle the distraught teen with a deceased kid sister.

Aisha reached for the bowl but I took a protective step in front of her. Just because

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it was past 8 and she wasn't dead yet, didn't mean that it couldn't happen, did it? Maybe this time a twisted psychopath dressed as the Joker would take his character too literally. But my every Shift thus far pointed to 8 p.m. being the cut-off.

My panic was misplaced – they left with no incident, as did the parade of pirates and goblins and cheerleaders that followed. 9 p.m. came and went, and when the final trickle of Halloween revellers faded away, we sprawled barefoot on the living-room rug, hands clasping mugs of marshmallowed hot cocoa, and large bowls of *gajjar halwa*.

Aisha threw her head back and chortled at a story I regaled, which knocked her cat-ear headband askew. I straightened it and my hand lingered on her cheek. In my own universe, pre-teen me had ignored her because I'd outgrown playing with dolls and Lego. I vividly remember

the first time I slammed my bedroom door in her crestfallen face, a wagon of toys beside her. Why had I been so stupid as to stop playing with her?

From where we lounged I had a direct view of the kitchen and its clock. Only minutes were left until I had to let go of me. I could never hold on to a Shift for more than a few hours at a time, and I could never revisit an alternate. Time to say goodbye. I swallowed, studied her face, every dimple, every strand of chestnut hair that fell over big brown eyes, and her dripping cocoa moustache. I couldn't think of anything useful to say, so I simply asked: "Aishi-pants, why are you a cat?"

"Cuz I'm gonna be a animal doctor," she said. And even as I chuckled in response, reaching out for a final hug, the familiar haziness of a Shift ending descended, and I was enveloped by darkness. I left the mind of that other me,

but to Aisha I was still there. I woke up sweating on the sofa in the home I'd purchased, years older, states away from where we once lived.

I blinked as the freshly painted ceiling came into focus, bracing myself for the wave of jealousy because Aisha was alive elsewhere but not here. It didn't come. All I felt was peace.

She is alive!

And I knew I no longer needed to search by Shifting to alternate pasts; in some universe out there, an 18-year-old Aisha was enrolling in a veterinary programme because she'd once chosen to be a cat on Halloween.

R. P. Sand is a theoretical physicist turned scientific adviser for literature and film, science communicator, and writer of speculative fiction. Cats, coffee, cosplay and colourful socks are a few of her favourite things. Find her at rpsand.com.

THE STORY BEHIND THE STORY

R. P. Sand reveals the inspiration behind Everett's cat.

Ours is a classical world, in which a car is either moving or at rest, a coin toss yields heads or tails, and a cat is either alive or dead. Combinations of the two are not possible. There are definitive states that each entity can take. However, in the subatomic world governed by quantum physics, a quantum particle can be in a probabilistic superposition of states.

Consider the qubit, the fundamental computing unit of a quantum computer. The qubit is analogous to the classical bit, which is the fundamental computing unit of the device you're using to read this. A bit is binary, and can be in only one of two possible states: 0 or 1. But a qubit has a third option: a superposition of the two. However, once a qubit's state is measured, the result is once again binary. The outcome has to be a 0 or a 1.

Superpositions needn't only be comprised of two states; there are certain quantum particles and systems that have even more. But upon measurement, they adhere to the same rule: the result is a single outcome out of all possibilities.

No one really knows why this happens. One possible explanation is the Copenhagen interpretation of quantum mechanics, in which the act of measurement itself 'collapses' all possibilities to a single one. In 1935, physicist Erwin Schrödinger published a paper that outlined his famous thought experiment as a push-back to this interpretation, by hypothetically extrapolating quantum effects on a microscopic level to an everyday macroscopic object – a cat.

Another possible explanation is the many-worlds interpretation (MWI) proposed by physicist Hugh Everett in 1956. He suggested that all possible outcomes do occur, but separately, as though they take place in their own separate worlds. In one reality, a measurement on a qubit yields 0, but in another reality a measurement on the same qubit yields a 1.

Viewing the MWI through a sci-fi lens, I pondered the question: what if it was Everett and not Schrödinger who thought of the cat?

