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Honors 345 B  
Story #2

“The stuff that souls are made of: Quantum”

We were raised in the beyond, in a woods of golden rays and dark implosions– subatomic splits and splices. In a world that wasn’t a world, and a space that wasn’t space, I knew you. We were tied. Two particles, entwined, in a shared state of our microscopic, all-encompassing realm. When you thought, I thought. And together our brainwaves shaped and altered the world that was becoming, the electronic frequencies of reality.

We were not together then, in fact, it took many millennia before those particles found each other, but no matter how many universes they spanned, we existed as one.

When you were young, the grass found you. I had asked it. I didn’t know that’s what I was doing exactly, but I remember calling to the world, in delicate wishes blown by winds and dandelion seeds. We were very young then, but we had reached the human era– traveled through wombs and molecular recognition, feeling grandmothers and great grandmothers pluck us from the quantum and shape and work us into DNA. This was the nature of undefined expiration. We would feel the end of a lifetime until the External Force had chosen another route: “indefinity.” Undefined, indefinite, finite, infinity. All the contradictions, as quantum is entitled to those. So, there we were in the grass, invasive and tall, too tall for little two year olds to see over.

I was on an island then, and my mother was building the porch for our little tent house. It was summer, before they mowed the orchard grass and butterfly meadow, and I remember her kissing my cheeks warmly, and combing my wisps of toe-head hair. The tent house was a twelve by fourteen, tin-roofed sanctuary. It had big windows and a picnic table nestled inside, and three beds: a bunk for my sister and I, and my mother’s full. There was a woodfire stove in one corner, and an ink print of a whale hung across from it. I remember sitting in my thick, pink and grey, irish-knit sweater and Carhart overalls, nursing honey-nut-O’s or whatever co-op equivalent, and letting the heat radiate through me. I would sit plopped there, on a warm wooden floor, in the cool mornings where the water lifted the fog onto the land and the dew collected on those great windows, and I would stare at that whale print, tracing its ink with my eyes. My mother would snuggle and bundle my sister, who was not one for mornings (I believe her lifetimes to have spent many an occasion in superposition), into her ocean of a down comforter, then she would put on the radio and dress herself for the day. She always dressed herself last. A habit my human era found to be a sign of giving.

That morning, my mother chose drawstring carpenter pants, black and thick, but supple from the countless hours of work– they felt like velvet in my grubby fists. My bowl was soon empty and the sun was calling to us. She had whispered little lovings into my ears and set me on my way, to topple out of the canvas and two-by-four haven and off to my favorite hideaway– the sunken garden.

You were on a farm, and your father was planting future grandfather trees and an empire of blueberry bushes. It was spring, some form of retrocausality found us correlated through time and

space, and the sun was already low into the afternoon. Your father had long been at work and proudly, lovingly left you to a young boy's imagination and exploration of the fields. There was a ghost of a friend, someone you played with but couldn't trace their face, who walked the mowed paths with you. The grass had cooked off most of the morning dew in that late afternoon sun, but when the two of you crouched to collect the hoppers and ladybugs, wet kisses from the stems could still be found. The dirt was supple beneath your raw toes, an earthen, damp warmth that made each step assured. Toddling down to the creek, you trailed the wild grass, marching, at times, to the rhythm of Archangel Michael and his guardian army— swishing your arms that were born again as plump swords, and claiming princedom over the tangling wetlands. One swish called too much momentum, and you swung yourself into a flop onto the ground. Sitting up, you examined your surroundings. The faceless friend was no longer with you, but the world had been your favorite playmate anyway. The dirt was wetter now, cooler, and it sunk into your shirt, bringing the piece back to your attention. The golden-knit long sleeve loosely hung around your soon-abandoning, infant potbelly, and you pulled at it in frustration. Wet, it clung to your body and was undoubtedly the culprit of your fall, as you had then decided. Shirts and clothes were always in the way for you, like the quarks that had found their way into your foundation, you knew it was best to be stripped down— a naked baby, golden and tan on the spring farm, raw to the world and the world raw to you. But the shirt would not give, and the adventures were still to be had, so you lifted with a heave and a thump, and on you tottered.

The grasses were enveloping us now, well over our heads of wisps and curls— me in my sweater, and you in your long loved, long-sleeve. I had little mary janes, and you had toes, gripping boldly with each step. I couldn't find you, though. I walked down into the sunken garden, a half-field buried between a ring of pines and walls of blackberry brambles. I hopped back and forth between the thicker, elevated tufts of grass, little island territories in the archipelago of Canary and Orchard and Meadow. You crossed the creek by three wooden planks, "the old bridge," and leapt into the skerries of gold and green. We were lost, you and I, in the curiosity of time and space, in a woods of golden again. We could not see or feel each other, and yet you and I walked hand in hand— off-shell propagators only found "real" or visible in Feynman, but very much real and tangible in the woods of golden. You sang to me of your archangel and told me of the stars you would explore, and I pointed out the leaves and bugs I could identify, and told you of the worlds I saw connected. "Our worlds," you said.

"Yes," I agreed, in a knowing that could only have come from those stars. We existed in inferred effects, in a line of fate that tied us, and in temporary violations of energy. That was not the first or the last time we found each other in the virtual, but it was a memory that told us both we would discover each other in the physical, too.

Looking up to the sky, we let the blue enshroud our minds. We walked and walked, as old friends do, and were of no concern to the direction or magnitude. At some point, we realized we were miles and miles from the tent and the farm, and many lightyears had carried us to where the wavelengths we saw were very different from the wavelengths emitted. The universe had expanded and stretched us very far, indeed, and we saddened as we learned a "goodbye." Birdsong called us into reality and I felt your hand loosen from mine. I walked the path back, a little less tangibly alone, and we existed in an interdependent uncertainty. I found my mother, still working on the porch, and you found the old windmill where your father would be waiting for you with a late snack.

In a lifetime of instances and energies, our worlds reshaped again, beyond the human era and beyond the physical, and we found ourselves in the stars. Back then, my cells wore away to the world and yours did, too, and we left earth in 23 grams (for MacDougall was only part wrong). 23 grams of stable particles bound by photons. And soon we were massless. The External Force was a little kinder after that– as they did not watch for nearly as many human years as they had let us bumble to find each other, and they did not steal us away nearly as fast.

On earth, I had loved as only I was taught– with all of me and with giving. And you had loved me back– with adventure and pride. We were linked. My eyes met yours in some well-lit room on a forgotten coast, and it was instantaneous. Not the physical, but the virtual. You were magnetic, and I found myself catching your eyes in every moment– over the crests of beautifully bound books we exchanged, after quips and sarcasms shot in a crowd but directed for each other’s amusement, or between moments of life, human life, that weighed nothing or everything, and we shared them all.

It was many years before we shared a friendship so full that we shared a life. That, we found in open kitchens and late night talks over jam jars, cool glasses of water and easy conversation. We lived along more forgotten coastlines, forging a love of golden rays and dark implosions (as the moments that weighed everything were never so simple to escape). Hand in hand we found archipelagos of Scotland and Oceania to walk, mile after mile. I had traded mary janes for raw toes and you had traded raw toes for irish-knit sweaters. We built tents for havens in our mid-twenties, and farms for blueberry empires in our late. And then, our daughter came into this world. She had your curls and my toe-head, and she walked with the same boldness and curiosity that we had sprouted at her age. So, we watched, waiting for the rest of entanglement to throw us into more and more worlds of awakening and life and capacity.

Somewhere along that physical moment, though, my DNA became unstable, rapidly replicating in failure after failure. I watched my daughter’s tears meet your eyes, and watched yours meet mine. There was no realm that could stop this, though. And no words that could lighten it. After the replications had gone too far, you followed. Your father said of a ‘broken heart’ and my mother said of ‘giving all of it.’ But it was a fluctuation that took you. A wave of grief, a virtual, but tangible wave. It was an electromagnetic frequency of reality that you had neglected until it became a tsunami, and even then you blamed it on the fuzziness of reality– a relic from human era mindsets.

But at that, the gravitons no longer mediated gravity and we found ourselves drifting into the cosmos. You became dust and I became gas, and in an instant you collapsed inward and I compressed and heated, and again the golden rays swayed. Light and heat was all we knew for a time, and we existed in waves and fluctuations– circling each other on a curvature of primordial gas. But the External Force waited there for us, and balanced the inward pulls of gravity with Casimir. And you looked to me, and I looked to you, but we needed not look anymore, for we were one. Under the quantum fluctuations, fundamental fields, and general relativity, we became our star.

We would not be seen by our kin for some time, and the entanglement between circumstances and loved ones and randomness would take time, still, before joining in our constellation of lifetimes– but it would join. Someday and someplace.

The External Force did not link us in the proposed circular trajectory, but a closed timelike rollercoaster of loops and twists and junctions. We would dance across these seams of space-time, until we found each other on the same path, in this lifetime of our human era, and in every lifetime.

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