

## Hexagons

*For Pat,*

*who I did not know well enough to make a character in this story.*

I learn that Michael has died just as the train hurls itself out of the tunnel and onto the Manhattan bridge. The sky had turned dark while I was underground and the million lights of downtown make up for the starless New York City sky. I dip my hand into my pocket and remove my cellphone to catch the brief window of cell service. I pull down on the mail app to refresh and an email marked “URGENT” slides into my mailbox. It is from the head of my laboratory. I open it and read that Michael had gone missing two nights ago and his body found in the Hudson River near the George Washington Bridge. It is a group email to the entire lab and kindly written. At the end he urges us to make use of the university’s mental health services and tells us that, for those who feel like coming in tomorrow, he would be available for anyone who feels the need to talk about Michael’s death.

When I finish the email the train has nearly crossed the bridge. It is packed full of people commuting home from work and I am lucky to have a seat. I touch my fingers to my eyes to check for tears that are not there. I had not even known that Michael was back in the states. He had been in Australia this past year to study the effect of colony collapse disorder on agriculture. I had not been surprised that he had never responded to the message I sent him when he was abroad. We had known each other for two years, but I knew very little about his life. He was a painfully private person and had few friends. There are socially awkward people who one pities

or avoids, but Michael was not of this sort. Dark-haired and handsome, he was a distance runner and had always exuded a certain quiet strength, a self-sufficiency that refused any attempt at pity. Though he was respected, it was certain that no one knew what went on in his head. He had been lonely. I knew that much. You could see it in the measured way he had approached every conversation, in how little eye contact he maintained and the slight glaze of pain that occasionally clouded his eyes. But beyond these physical clues I know nothing about why he might have killed himself. I know just enough to not doubt that it was suicide.

The subway arrives at Prospect Park. Though the stop is underground the center is open to the air. A slow stream of droplets left over from the afternoon rain filters through the tungsten lighting and onto the tracks below. I sigh and my breath blossoms beneath the lights. It is late fall, almost winter and though I left San Diego for New York three years ago, I am still surprised at how quickly the sun sets, tracing only a feeble circle across the southern sky. I don't feel much of anything. Michael always said that knowing a fact and believing it are two very different things.

When I get home my apartment is empty as usual. My roommate is a biochemistry grad student and is never home. Tonight I prefer it that way, I have been dreading the need to decide if I am going to explain what happened or remain quiet. It is only eight pm and I don't know what to do so I slip into running clothes and jog the couple blocks to Prospect Park. I trace the streetlights like a swimmer moving from island to island. Running is a habit I picked up from Michael and as my feet hit the pavement I reexamine my memories of him in light of his death. Everything seems altered, as if I am returning to a research problem only to discover that my most basic assumptions are not axiomatic but entirely arbitrary. Our friendship, if I can call it that, was made up of abstract conversation. Three days a week, we ran together from the

university gym to the East River and talked about our work, science and philosophy, but I never heard more than a sentence pertaining to his personal life. I know that he had grown up in a small town in suburban Connecticut and that friends and family from home posted on his Facebook wall every birthday, but that was it. I have such a respect for Michael's intellect that I feel as if his suicide must have somehow been a rational act. As if he underwent some long and painful calculation and came to the unshakable conclusion that life was not worth living. But without the fundamental axioms, the problems from which he begun the calculation, there is no way I can understand his deadly path.

The last time I saw him was almost a year ago, on a run the week before he left for Australia. It had been on a Friday afternoon and on our run to the East River. As was often the case, Michael had just read some paper, either scientific or philosophical and was talking about an intellectual puzzle. I remember the conversation because it was the first time I heard Nagel's famous argument for dualism, the metaphysical position that the world is composed of two separate substances, mind and matter. That afternoon Michael presented me with Nagel's odd question: is it possible for me, a human, to understand what it is like to be a bat and see the world through echolocation. As a neuroscientist my immediate response was that of course it was possible, assuming we could acquire a complete understanding of bat neurology. However, Michael pressed me further: "But could you know what it is like to be a bat, what it's subjective experience is?"

We were running beside the river beneath the Manhattan Bridge. A subway train passed overhead and I was forced to wait before I could reply. I looked out across the river where the setting sun cast a golden curtain over the opposite bank, turning even the decaying industrial buildings beautiful. The train disappeared down the length of the bridge. "In that case it is a

meaningless question. Of course I can know everything there is about bat perception and the bat brain and still not know what it is like to be a bat.”

Michael was ready for this response, “But if you know everything there is to know about the bat brain then shouldn’t you know what it’s like to be a bat?” He was grinning openly now, knowing that he had backed me into a corner. He enjoyed this immensely, taking nearly as much physical pleasure in the conceptual sparring as he took from running. At this point I recognized that I had to either acknowledge that bats have no subjective experience—which would be ridiculous—and that there was nothing that it is like to be a bat, or agree with him that even a complete physical description of the bat’s neurons would fail to capture something.

“God dammit, you’re trying to force me to agree with the sort of argument a dualist would use for the existence of a soul, aren’t you?”

“Bingo, it’s an argument for the ghost in the machine.” Michael said while deftly jumping over a puddle. We had been over these ideas many times before.

“Fuck you for always trying to bring down my entire discipline,” I said with a smile. As a neuroscientist I was and still am committed to materialism. I have to believe that it is possible to achieve a complete understanding of what it is like to be a bat, otherwise my field will ultimately be a failure, a long and difficult journey to a dead end. Michael had studied math in his undergraduate years before turning to computational biology and didn’t seem as bothered as me by the notion that neuroscience might ultimately fail to capture subjective experience.

Only now do I realize that I didn't really know what Michael’s actual philosophical position was. On our runs Michael would argue from multiple perspectives while I struggled to defend my field from his thought experiments. Philosophy allowed him to shift around a problem, light footed as an agile boxer and attack from any angle. I used to think that philosophy

was a useless game, but on these runs with Michael I grew to love it. I wish that I had thought to ask him what he actually believed in and why.

Michael didn't feel dead. It is like when I first learned that an atom is almost entirely empty space, and that the world I could touch is mostly empty too. Things still felt solid no matter what my physics professor said about electrons and clouds of probability. Two days have passed between when Michael went missing and when I got the email tonight, and he has been dead the whole time. A year of terrible suffering must have gone by for him, and me, ignorant and happy, had had no idea of what he was going through. To me he had already been physically gone for a year and there was no evidence beside the email that his absence had now turned into his death. As I run beneath the streetlights I realize that there is another fact that I find very difficult to believe. Though my duties as a neuroscientist bind me to materialism, Michael was right in some sense. It certainly feels like I am both a mind and a body, just as it feels that Michael is still alive.

In the morning, I go into lab and find Ada there before me. She's sitting on one of the black stools with her back to me and a pipet in her hand. I walk over to the side of the bench that we reserve for laptops and food rather than chemicals and DNA and set my stuff down under the desk. She hears the rustle of my bags and swivels on the chair to face me. Her eyes meet mine, and we both are thinking the same thing—if any of us had been a suicide risk it would have been her, not Michael, and yet here we are, her red rimmed eyes looking at mine through a veil of pain.

“You heard?” she asks. I break eye contact and sit down with a sigh.

“I found out last night. Poor Mike. How are you doing?”

“Got most of my crying done last night.” She sets down the pipet, and unwraps and rewraps her grey scarf.

“I’m still in shock, I never thought ... did you have any idea?” Ada and Michael had dated nearly a year and a half ago now, six months after she broke up with me. I reluctantly acknowledged that they had been a cute couple. They are and were respectively, both quiet intellectuals, Ada quick witted and shy, with mousy brown hair and perpetually lopsided bangs, minuscule beside Michael’s six feet. I never knew why they broke up and it occurs to me that if anyone has any idea why Michael did it, it would be her. I decide that eventually I must find out the answer to this question. I watch her carefully as she responds, her breath catching in her throat.

“No, I’m nearly as surprised as you.”

I don’t believe her, but I move on and set up my laptop to begin my work. After ten minutes of doing my email I hear a strained breath from behind me where she’s working and I turn to see her grab a Kimwipe—one of the tissues we use to clean up spilled reagents—and dab her eyes quick and blow her nose. Her red eyes dart up to mine and back down. I get up and envelop her in an awkward hug and soon I’m crying too and dabbing at my eyes with Kimwipes. I haven’t cried like this in years, though I feel like it is more for her sake than for Michael’s.

It’s nearly noon and we mutually agree that no work is going to get done, so we leave the lab and walk down First Ave to the cheap sushi place that we all frequent. That was where I first met her, back when I had been in my first year of graduate school and her in her second. At the time, that single year had felt like an enormous gulf between us. She had been calm and self-possessed compared to me, who was ever insecure and eager to prove myself to my peers. We had just come back from a conference that was held in our university’s auditorium. She had

raised her hand at the end of a talk and told the speaker that he had done his statistics wrong. I had seen her before but that was the moment I really noticed her, raising her tiny pale hand in the enormous room, completely unafraid of suggesting that the researcher was purposefully misrepresenting his results. At the restaurant she told me that she knew the researcher from her university in Slovakia where she had done her studies, and that he would often fish for significant data by picking and choosing statistical tests regardless of methodology. I didn't notice she had a slight accent until she told me this, but afterwards it was impossible to ignore. Her voice descended softly on the vowels and closed sharp on the consonants. Our relationship had meant more to me than it had meant to her. For me Ada had marked the start of a whole new stage of my life, whereas I had been simply an intermediary for her between her former Slovak boyfriend and Michael.

Now we eat from the same fake porcelain plates as when we first met and talk about Michael. Ada is Jewish like me and we share a mutual desire to mourn by exchanging stories. Half smiling through tears she asks me if Michael ever told me about the project he wished he could do his thesis on.

I laugh, "For the first six months I worked with him I could hardly get him to say more than a sentence, but once he started talking about honeycombs I couldn't get him to be quiet." Michael had first told me about his honeybees when we were both waiting in the lab for an hour long reaction to finish. From boredom, he had started drawing a lattice of hexagons on a sheet of paper and calculating the ratio between the volume and the parameter as the hand drawn honeycomb expanded. I asked him what he was up to and he smiled his half smile and said that he was re-deriving the proof that the hexagon is the most efficient shape to tile an area with. He went on to explain that the problem was known as the Honeycomb Conjecture and was almost as

old as mathematics itself. The question was: why did honey bees make their honeycombs from hexagons rather than another shape? The assumption was that bees must use hexagons because the hexagon is the most efficient shape to tile a space with, but proving this turns out to be far more difficult than it sounds.

Michael told me the problem had its roots in a time when Pythagoras and his disciples had sat drawing numbers in the sand and diagramed the mystical connections between geometry, music and math. For them the world was guided by hidden harmonious ratios and their sculptors carved these principles into white marble turning stone to skin and fabric. Because of their work, Plato proclaimed that all of reality was nothing but shadows on the wall of the cave and that truth and beauty lay in the perfection of mathematics.

Michael told me that for every gram of wax, six grams of honey are needed to produce it. Like the inescapable precision with which rivers carve the easiest path through mountains, this evolutionary pressure amplified the smallest difference in efficiency across millions of years. Over the much shorter time span of human civilization, mathematicians and biologists had worked to solve the Honeycomb Conjecture. If one limits the analysis to the regular polygons it is possible to eliminate all shapes that don't tile seamlessly. Circles, pentagons and heptagons obviously won't work because wax would be lost to fill the empty space between their edges. This leaves triangles, squares and hexagons. From here, it is relatively easy to prove that the hexagon is the most efficient, because it minimizes the perimeter for any given area. This all seemed relatively straightforward to me, but Michael pointed out that there was no reason to assume that bees would choose from only the regular polygons. Without this assumption the complexity of the problem grows enormously and, Michael admitted, was beyond his own ability to solve. This last and most difficult challenge went unsolved for centuries until the

mathematician Thomas C. Hales produced a gorgeous proof one year before the dawn of the twenty-first century.

Michael's pet project had been to discover how the honey bees knew to make hexagons. Was it encoded in their DNA or did it emerge as some higher property? Or maybe it was a property of the wax rather than directly caused by the honey bees? He would have devoted all his time to this problem, but then colony collapse disorder swept across the states and Michael's beloved honey bees suffered terribly. Half of the world's colonies were devastated and even in New York City worker bees could be found crawling aimlessly across sidewalks, their bodies littering the grass of city parks. Michael could not bring himself to study so abstract a question when honey bees faced possible extinction. So he turned his sharp mind and clear eyes to the problem of hive organization and struggled to uncover whether some combination of pesticides and global warming might lead to the collapse of their social structure and ability to navigate.

We have been sitting in the restaurant so long by now that a waiter approaches and places a tab on the table. The surface is imitation marble, made from some dull plastic. I reach for my wallet and Ada reaches for hers. I know from experience not to try to pay for her bill, and we split it evenly. Then we are parting at the door, emerging back into the clutter of cars and first avenue. We begin to separate, but Ada pauses and turns back to me. Our conversation had been dark, but there has been humor too and she had not cried since it began. Now water wells up at the base of her stony blue eyes and I see that she is once again near tears. "We, almost forgot something. What Michael loved the most. What he said he could almost write poetry about. Their eyes." I look at her blankly. "Honey bees have hexagonal eyes."



The days go by and we continue our work. There is DNA to replicate, brain tissue to stain and endless quantities of data to analyze. My own thesis project strikes me as uninteresting, but I turn to it in the way I might rub a soothing balm on insect bitten skin. Ada and I fall into a rhythm of getting lunch together. We try to avoid mentioning Michael, but his name is always at the back of our minds. I begin to learn things about her that she would not or could not share when we were dating. I learn about her childhood in Slovakia and her years spent playing beneath the stern facades of decaying communist buildings. She tells me that her father is an alcoholic and about the suburban nihilism that drove her to seek meaning in science and an education outside her country. For my part, I tell her about my years roaming the hills of northern California, and how in high-school I started off a soccer player and anti-intellectual, but that nature changed me slowly changed from jock to scientist. I try to communicate to her how much the fragrant wind from the Pacific Ocean means to me and the excitement and terror with which I would climb seventy feet up into the forest canopy. The strong wind rhythmically rocking me above the earth. The smell of pine needles all around and dark sap stuccoing my fingers and hair.

I feel and hope that Ada and I have developed a sudden closeness orthogonal to our previous relationship. This dulls the pain in a way that my research never could. After that week we learn that Michael's family has set a date for the funeral and the question begins to burn again in the back of my mind. I am at her apartment in Queens, a small spare place with white walls and no decoration except for a single abstract painting that Ada says her brother painted for her. She claims that the lines of bright paint are supposed to resemble neurons. We jokingly argue over whether scientific accuracy is necessary in an artistic depiction, me voting for accuracy, her for artistic freedom, but then we fall silent. We both are thinking about the funeral.

“I need to get a suit; it’s stupid, but I haven’t been able to bring myself to do it,” I say. She nods only quietly, and like old times her mind suddenly becomes inaccessible to me. I twist and turn in the conversation trying to find my footing, but I am distracted. I give in to my curiosity and decide to ask the question. “Ada, I’ve been meaning to ask you.” She looks up at me, her eyes tired and cold. ‘Don’t make me hurt’, they seem to be saying. I rush on, “I don’t want to intrude, but the question just keeps bugging me,” I’ve practiced this, but still I fumble slightly with my words. “Do you know anything about why he might have done it? I thought maybe it could be related to why you broke up?” My heart is beating fast and after I say the words I know that I’ve overstepped some hidden condition of our friendship.

She is leaning against the kitchen counter, her small body radiating sadness and anger. Then with measured force she speaks. “Do you know why you and I broke up?” I look at her blankly. During my first year she had been the one to break things off suddenly, I had no warning and it had hurt me. “No. I thought you didn’t.” She sighs bitterly. “Understanding and empathy are two different things. I realized very quickly that you could only give me the latter.” I flush hot with embarrassment. I have seen Ada angry before, but never cruel. She takes a long pause and her blue eyes analyze my face. When she speaks again it is with a kinder tone. “It’s not your fault I never told you.” She pauses, “It’s just impossible to fully understand without experiencing it. The year before college, when I was seventeen I was depressed. My doctor at the time put me on Xanax and Lexapro. Do you know the difference between them?” I shake my head, though I also study the brain, pharmacology is her field not mine. “The Xanax was the problem. Besides the fact that they act through different mechanisms, one critical difference between them is their half-life, how long it takes for the body to break them down. Xanax has a relatively short half-life of about eleven hours, by comparison Lexapro persists for nearly

thirty hours. This means that Xanax is enormously more powerful and capable of stopping a panic attack cold, but, in some people, is much more likely to lead to dependency and increased feelings of depression. For the severity of my symptoms it should not have been prescribed at the dosage it was, but my psychiatrist was a greedy idiot. In a matter of weeks, I went from depressed, but functional, to suicidal.” Throughout all of this her tone remained entirely neutral, “If I hadn't used the last of my strength to check myself into a psych ward I wouldn't be here.”

“I had no idea.” Words are quite useless things.

She exhales slowly and looks up at the ceiling. “I can hardly tell you what it's like to feel so desperately worthless and struggle to realize that it's because of a drug, because of it's effect on the quantity of a neurotransmitter in your brain. I remember when I figured it out for the first time. The realization hit me suddenly, but I knew it only cognitively like some fact I might have learned in school. The feelings of worthlessness are real, so real, and stronger than any I'd had before. But that piece of knowledge was just enough for me to take myself to the hospital, and I went through withdrawal where I couldn't hurt myself.”

All I can do is repeat, “Good god. I had no idea.” After a long silence I ask: “Did a similar thing happen to Michael?”

She shakes her head slowly, “I don't think so, but I have no idea.” A tea pot had been boiling while we talked and now the whistle goes off. We both flinch slightly at the noise and she makes herself a cup of tea. As she pours the water I notice that her hands are shaking slightly. “I'm sorry I was so harsh on you, it's not your fault.”

“No I'm sorry,” I say immediately. It's past ten thirty and I feel the fatigue eating around the edges of my adrenaline. “I don't want to keep you up too late, see you in the lab tomorrow?”

“Yeah I’ll be there, whether I’ll get much done is another story.” We share a cautious smile.

“Same.” I move to the door, but when it is half open she speaks again.

“There is one last thing about myself I never explained.” This time she meets my eyes and gives me a shallow grin, “Did Michael ever ask you the question about the bat?”

“Yes, why?” I laugh slightly at the apparent non-sequitur.

“I had had only a mild interest in science and the brain before that experience. I don’t know what made Michael so interested in that problem, but that’s the reason I was, and the reason I ended up studying neuroscience and pharmacology. We both had a strong desire to understand both sides of the coin, the chemicals and the way we felt.”



That night I dream about Michael. I am in the apartment I never saw in Sydney, Australia. The room is completely bare and paneled with dark pine wood. We are speaking, but I don’t know what we say. I either know that he will kill himself, or that he is already dead. I try to gently guide the conversation towards his depression. Slowly I probe his pain. Then I notice the bed. It rises straight up out of the floor as if made from one solid piece of wood. It is a bare wooden box and the front curves forward like the prow of a ship. There is a lip around the edge and it is without blankets or sheets. A dark stain blotches the wood and a cold horror fills me as I stare at it. The bed feels contaminated and I retch as a sulfurous smell fills my nostrils and lays thick on the back of my throat. I continue to retch unable to look away from the mark. In it I see Michael’s sleepless nights and know that he has suffered alone, struggling to sleep on the hard wood.

I wake and find that I have vomited in my own bed, the acid smell biting at my tongue. It's morning so I clean myself up and take my temperature. It's the day before the funeral. I'm bleary eyed and tired, but I don't have a fever. So I take the subway across the Manhattan bridge and into lab. Ada is not there and I perform my experiments in silence. I take brains from mice that were treated with a drug, and then flash freeze the brain and make slices thinner than paper. After I accumulate twenty slices of each brain I transfer them individually with the tip of a paint brush through multiple chemical baths intended to stain for a protein. The final bath is a light green solution where the slices float like leaves in water and turn from clear to lavender. Then I fish them out of the liquid and paint them onto glass slides. The process is soothingly mindless and takes the entire day to complete. I hold my breath during the final step, because in the past, for mysterious reasons, the brains have often refused to change color and I have had to start the entire process over again. I am lucky this time and can go home with this small satisfaction. There is a tailor on First Ave near the laboratory and I rent a black suit and walk out with a grey garment bag slung over my shoulder. It's already dark outside and I descend into the cold light of the subway stairwell.

Out of habit I check my phone as the train crosses the Manhattan Bridge. Ada had just called me while I was underground and I call her back quickly. The phone rings faintly and I press it tight against my ear as I stand in the crowded subway car. She answers, and speaks fast. I can't make out what she is saying but I can tell from her voice and the jumbled pattern of her speech that she is crying as she talks. Just as the train begins to leave the bridge and return to the tunnel I tell her that I will change lines at the next station and head to her apartment.

The strong Ada from the night before is gone. This Ada is again red eyed from crying and has black mascara tears running down her cheeks. From these I guess that at one point during the

day she had planned on going into work. She insists that she is fine and that I didn't need to come. I don't press her to tell me whatever she had been trying to say over the phone, nor do I tell her that I had feared that she might have hurt herself. I struggle to make small talk about our laboratory work for a while, before mentioning that our boss has rented a van to take all of us to the funeral. Then she breaks down and I hold her and let her cry into my shirt. The tears begin to end and she pulls away quickly.

"I'm sorry you had to see that." She wipes her nose.

"Don't worry about it." Cautiously I ask her, "What is wrong?"

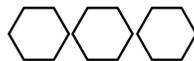
She gives me a look that says, 'Don't be stupid.'

"I mean did anything change between yesterday and today?"

She takes a shuddering breath and responds. "Yesterday you asked me if I knew anything about why Michael did it and I dodged the question." Suddenly my guilty curiosity burns at the thought that she might be able to finally answer why. "I don't know if anyone but Michael knew the answer to that question, but you also asked why we broke up, and that answer is easier to give. As with us, I was the one who ended it. He hardly spoke about it, but from the little he said I knew that Michael had been depressed like I was. But instead of trying to understand the cause, I avoided the moment when he would tell me. Once, I think he was about to tell me and I made some excuse and fled." Tears begin to fall again, but this time she has control. "He didn't have to tell me, I knew because his silent pain was like mine. But I couldn't hear his pain without remembering my own."

She cries for a while and I comfort her. When the tears begin to stop, I ask her if she has eaten yet, and she tells me that she's hardly had anything today. So she sits on the flaking vinyl couch in her living room with a green blanket wrapped around her as I search through her

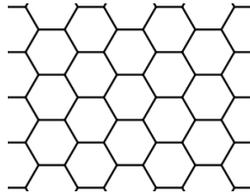
cabinets for food. In one I find a two boxes of Kraft mac'n cheese. I boil the noodles and mix the unnaturally orange cheese powder with milk. Soon I hand her a steaming bowl. She accepts it with a small smile. We eat in silence and I think about the only time I ever saw Michael run a track race. He had run from the front and had set a brutal pace, but the other competitors were still in college and had the easy stride of runners who had never suffered an injury. I remember the pain on his face as his legs slowed in the last lap and the younger runners passed him. Michael was strong, but it did him little good. Occasionally I sneak glances at Ada, but I have no idea what she is thinking. At this point it is nearly midnight and she offers me the couch. Tomorrow we will head into lab together and take the van to the funeral. She provides me with blankets and a pillow and disappears into her room.



That night I dream about Ada. I'm in my first year of graduate school and we've been on only a few dates. We go to the museum of natural history and lay beneath the life sized model of a blue whale which hangs suspended from the ceiling. I return to her place, we fool around and I fall asleep in her bed. She has insomnia and stays awake reading beside me. When I wake up inside the dream she is no longer beside me, but has moved from the bed to the floor, such that I cannot see her over the edge of the bed. I feel the same cold horror and don't know if she is hiding herself from me or hiding from me. I try to peer over the side of the bed to look at her, but she has covered her bare legs with sheets. The sense of fear grows in me, and despite her protests I try to uncover her legs. Eventually I succeed and she looks at me with shame. Her feet are damaged somehow, bare legs merging with gnarled stubs. Only a few mangled toes remain on each and foot and I understand that the rest were removed like vines with garden clippers. The

sulfurous nausea from Michael's bed returns and I know that she has hurt herself terribly. The nausea grows and I roll away from her, engulfed in the acrid fear that there is nothing I can do to help her.

I wake and lie still on the couch for a long time. My eyes trace the cracks in the ceiling and I converse with Michael in my head. "If I can know everything there is to know about bats and still not know what it is like to be a bat, does that mean that even if I knew what caused your death I could not understand why?" Through the haze of my imagination I cannot see Michael's response.



When Ada wakes we go to the funeral. There are many mourners and no coffin. On the bus ride back I stare out the window and replay the logic of the argument, but this time with Ada.

"You can never know what it's like to be a bat," she tells me, "just as you cannot understand how to help me. It follows from the separation of my mind from my matter that there is an even greater gulf between my mind and yours. Matter can interact, Minds never." I am not quite sure how to respond to this. I am a scientist not a philosopher. I cannot accept a nonobjective reality. In the days after the funeral I imagine a thousand conversations with her. Sometimes I fall silent and accept her argument, but other times I refute it.