

## A Footnote from a Singular Infinity

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I can still recall those first moments edging along the tightrope of the radial glial cell, suspended in the livid chaos of the motion from all of us racing forward. I had no idea where I was going, but the stinging unpleasantness of neurotropic molecules assaulting my senses whenever I made a wrong turn made the path clear. I knew that if I made it to wherever I was going, it would all be worth it; and boy was I right. The moment I found the place, I had the sense that I had met my divine purpose. We all felt that way at first. In fact, we all felt that way for a while. That's why children are such expert learners you see, all of us are still eager and wholly devoted to the cause. One might question my ability to recall such things after so many years; particularly, when I had no words to attribute to my feelings at the time. However, memory is my job. It's always been my job, although I must concede that I've done it better sometimes over others. I suppose I should explain.

I am a neuron inside Mike Jaeger's brain. Specifically, I reside inside the prefrontal cortex of Mike's brain. For a while, things were going really well for us: the neurons inside his frontal lobe and for all the neurons inside his brain. We began experimenting with the neurotransmitters we had been graced with almost as soon as we'd reached our places. We had a general sense that this was practice, but for what, we couldn't say. The moment he was born, we all felt the shock of entering the harsh light and noise of the hospital. The first touch of cool air triggered a reaction in the motor neurons linked to Mike's vocal chords and unleashed terrified cries that made quick use of the air that had just entered his lungs. Of course, those of us involved in memory processing only got the filtered version relayed from the occipital and temporal lobes, but there was a big enough influx of stimulation that nobody felt left out. Bursts of dopamine, acetylcholine, glutamate, and epinephrine were flying around like there was no tomorrow.

Mike had a happy childhood. He was eager to learn and we were eager to store all of his new experiences. How could we have known that there was something missing, something that we weren't doing that made Mike different from all of his friends? From our perspective, we were doing a great job. We didn't know that there were too many dopamine receptors forming, that some of our connections were tenuous at best. Thus, when one day in the middle of class Mike found himself unable to recognize the strange beings around him, despite having gone to school together for a decade, we were of absolutely no help. After a few seconds we jolted back into focus and we were able to tell Mike that yes, the people around him were human beings and so was he.

We were all shaken from the experience, but we didn't think that it would happen again. Why should it? Of course, it only got worse. Strange, foreign thoughts began running through Mike's head. He wasn't one of 'them'; he was surrounded by 'the enemy,' whoever that was. Humanoid creatures lurked at the edges of his vision and told him that his life up until that point had been a lie, that he was a clone of his father who was not human, and that this inhumanity freed him from the laws of society. We couldn't help but believe. We had no idea that these things were the result of misfiring neurons.

There were moments of clarity, times when we knew something was off and Mike would wonder at his sanity, but for the most part all of these things felt so real. It wasn't until the day that Mike was a hair's breadth away from joining the unearthly beings to attack a fellow classmate that one fear overpowered another and he finally confessed his strange thoughts to his mother. She comforted him and told him to tell her if any of these things happened again. Immediately after she listened to what he had to say, she contacted a doctor.

Schizophrenia. One of Mike's fears had been confirmed, but he supposed that this was probably better than actually being an inhuman clone. Still, he wondered if he could really join society knowing that there would always be something wrong with his brain and that he would always require medication to have a hope of functioning normally. We tried to comfort him with memories of the success stories of people, who had been diagnosed with schizophrenia, but the neurons in Mike's emotion centers were going wild and every positive thought was marked with doubt and

fear.

It was even worse when the first attempts at treatment were ineffective. He was seeing a psychiatrist, which Mike thought was helpful in giving information that might better allow his doctors to find an effective medication. However, this also caused him to feel shame. He was struggling with his schoolwork, the Zyprexa made him dizzy whenever he stood up, and the shadowy figures were less visible. but still telling him things he didn't want to hear. He longed to shout at them, to tell them to go away, but he knew that in spite of everything his senses were telling him they weren't really there and that such behavior would be the social equivalent to walking around carrying a sign that read "stay away, I'm an uncontrollable psycho!"

For our part, we struggled to assist whichever medication Mike's doctor was currently having him try out. We tried to reel in the dopamine, we struggled to form whatever connections it was we were missing, but without guiding tropic molecules, our efforts were useless. We longed to lift Mike's spirits, but were concerned that any excess dopamine or serotonin would exacerbate the hallucinations. After all, it was our unnecessary firing that had caused him these problems in the first place. Our system of organization wasn't working, and we had no idea how to repair it. On top of all that, my neighbors and I were having connections broken, formed, and strengthened as our myelination began to take place. We let Mike down, failed him in tasks he had relied upon us for his entire life.

We couldn't begin to understand any of this until the Chlorpromazine began to take effect, performing as an antagonist to block dopamine receptors. Shadowy figures no longer stalked Mike's every waking moment. We began to trust ourselves for the first time in months. We settled into the routine of things, although we were still careful about what we responded to. Even now, years after the fact, we worry that at times we might be overzealous. We only want the best for Mike, but life can be awfully exciting.

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