

“Just make sure to breath slowly,” my dad warned me. “It lasts a long time, so just stay clam. You will be okay, I promise. We will go out to barbecue afterwards,” he added sympathetically.

We stood in front of a windowless hospital where I had an appointment for an MRI. The initials alone made the procedure sound like a science fiction experiment.

Inside, as we walked down an unnecessary long and musty hallway, I dragged my hand along the peeling drywall, listening to the purring noise my fingernail maid against the uneven ridges. My dad, with some effort, opened the large door at the end of the hallway to the radiology center, stepped aside, and offered a comforting smile as I walked passed him into the waiting room, immediately overwhelmed with the smell of leather, lavender, and seaweed. The door closed behind me and I was alone. I took a seat next a woman, so frail and hunched; she seemed to be contracting into herself. Unconsciously, I imitated her movement, trying to keep my distance. Awaiting my imminent, yet unknown, future, I nervously drummed out triplets on my knees, which prompted a frightening glare from the woman next to me, now so balled up that she had to swivel her head almost all the way around to meet my eyes. In an attempt to prove that I was not intimidated by her demoralizing stare, I smirked at her, but was all too relieved when I heard my name hollered by a large nurse sweating intensely under her arms and neck.

I shot up from my fetal position and sped past her into the next room, thankful to leave the smell of leather, lavender, and seaweed behind. Upon entering the next room, the cheerful, though sweaty, nurse instructed me to remove my clothing and follow her to the “dungeon.” I chuckled out of kindness, but in my current state, I was not amused.

I did as I was told, fearful of what was to come, not at all reassured by my father’s words. As I followed the nurse into the “dungeon,” I was horrified when I was instructed to lie down in what looked like a giant pill bottle flipped on its side. As I lay in the cockpit-like tube, I, like my dungeon master, began to sweat and squirm in the tiny space. All I could do to refrain from hyperventilating was to zone out, which I have become increasingly adept at.

A month earlier, I, skiing with my semi pro, semi Christian, ex girlfriend, cockily followed a ski school of five year olds down the steepest slope, only to run into a tree, hit my head, and wake up minutes later with dozens of tiny red faces peering down at me. Not wanting to let on that I was dizzy and my head throbbed, I shakily stood up, smiled, snapped on my skis, and continued down the hill to ski the rest of the day.

The headache didn’t go away. There was a week, then another. Finally my parents took me to a doctor, who ordered the MRI.

The melody from a Yelawolf song I had been listening to on the way to the MRI center engulfed my stagnant brain and I instinctively began to write lyrics, chanting them under my breath. “Music is my savior; rhythm, my religion. Hip-Hop is my life; the snare drum, my addiction.” The sweaty nurse awoke me from my daydream when she explained the procedure for the MRI. As she warned me of the tightly enclosed space and the long period of time I would be imprisoned in the tube, I zoned out again, whispering, “Music is my savior; rhythm, my religion. Hip/Hop is my life; the snare drum, my addiction. Melody, my soul; kick drum, my heart. Studio, my dream; but this is where I’ll start.”

The hard plastic bed I lay on began to rumble and move. It slid me further into the tube until I was completely engulfed. I understood all the warnings, shaking, confined in a tube, completely cut off from the familiar world. I thought about what it would be like to be buried alive.

A sound began like nothing I'd heard before blaring from the inside of the pill bottle. The noise so intense it emanated from every side of the tube, penetrating every inch of my body. It became rhythmic, warming me, and I no longer felt claustrophobic. I was no longer afraid. In fact, I felt intensely alive.

The sounds boomed, looping, clicking, and modulating. I experienced something that could only be described as high. As the puncturing sounds resonated through my body, I closed my eyes and felt complete bliss. The sounds so greatly affected my physical and emotional state that upon exiting the dungeon, wandering through the lavender-smelling lobby, and back into my dad's car, I could not contain my excitement. He looked sympathetically at me, as if I'd been through a horror, but when I professed my uncontainable enthusiasm, his look changed. He stared at me as if I was crazy and laughed, but I could only think about the sound still reverberating through my body.

I began to think about the power of sound, how it was capable of transforming something so terrifying into something I passionately loved. When the news came, I was excited to hear that the MRI showed I indeed had a concussion, as I hoped to enter the godly cockpit again. I could not understand why I had such an odd reaction to the MRI. Everyone I told of the experience thought I was crazy. I concluded that my bizarre reaction and my connection to sound began in my childhood.

I grew up in the small, rural town of Point Reyes Station, California, where driving even a remotely fancy car elicited dirty stares from the locals. And being spotted wielding an In-N-Out Burger was social suicide. Point Reyes is surrounded by nature and the most pure and rare sounds. My friends and I ran wild in the woods and I listened to the birds, the blowing trees, and leaves crunch as we danced over them. We surfed and floated in the ocean until after dark. I listened to the waves lapping against my surfboard and the calls from gulls and pelicans. Underwater I heard the sound of bubbles and reverberating booms. The noises comforted me. I felt most carefree and alive alone with the sounds that nature provided.

I attended preschool in a family friend's house where we were sent home if we wore T-shirts with logos on them, and watching TV was forbidden. (I didn't have to worry, because my family didn't have cable or an antenna.) The school didn't believe in teaching young children to read. But my world drastically changed when I entered kindergarten at a traditional grade school an hour or so away. I was immediately bombarded by pop culture, which both fascinated and frightened me. My Nike-wearing, Gap-suited friends talked incessantly about the newest PlayStation games and Sponge Bob. I pretended to know what they were talking about. At lunch, kids whipped out their Game Boys. I asked my parents for one, but it was no surprise when they said no. That night I made one out of cardboard, drew on buttons, and played for hours.

I didn't mind having to fake that I knew about TV and videogames, but then my friends began reading. In class, I turned the pages when everyone else did, but I couldn't follow along. I was terrified when it would be my turn to read aloud. Soon the teacher stopped calling on me and I was sent to see a "special" teacher. Every afternoon when it was time for reading, I left class and trudged, embarrassed to a closet-sized room to work with a small, overly chipper, learning specialist who never ceased to tell me of her highly achieving lacrosse star son. I also was sent to see a psychologist who had me arrange blocks, do puzzles, and talk about pictures I drew. After a few sessions, my parents and I met with her. I sat in her sticky leopard printed armchair as she said, "Jasper, honey, you have something called dyslexia." Trying to soften the blow, she added, "You are truly a special young man." But I didn't feel special.

Because reading and some forms of communication have proven difficult for me, a teacher pointed out that it is as valuable to perceive the outside world through the ears as much as through the eyes. I hadn't thought of it. Music and sound was a language that I could grasp that allowed me to make sense of a world that I would otherwise struggle to understand.

The more I've thought about it, the more I've realized that music does more than give me access to the world. It helps me process both the hard and great times in my life. Many times throughout my life, music was the only thing in my world that kept me sane. My older brother, Nic has amazing taste in music, and as I grew up he introduced me to all the music that influences me to this day. When I was about ten, life as I knew it became confusing as my Nic's addiction to meth began. It was only music that could remind of who my brother truly was. I picked up an old guitar that was around the house. I began figuring out how to play. I bashed on his old drum set. I taught myself bass and piano. I listened to songs that sometimes allowed me to forget. I listened to songs that made me remember that my brother, no matter what was happening then, was that same kid who rapped the Wu-Tang Clan with me and sang the rolling stones as we drove to the beach. Music sometimes made me feel more than I wanted to, but it was always music that allowed me to work through tough times.

This year at Oxbow, for the humanities class, we were asked to do an experiment that pushed our boundaries. It seemed clear that I needed to include music in my experiment as my fascination of how intensely music can effect my emotions and my state of mind grew. Music has the power to make me recall the past and want to cry, it can make me incredibly confident, and incredibly enthusiastic, and it is like no other high imaginable. It makes me tingly, just writing about it. But for my experiment, no matter how horrifying an idea to me, I decided not to listen to any music for four days and record how this affected me. This experiment proved unbelievably fascinating and really taught me some meaningful things about my self.

I lay in my bed, sweating and shaking, rolling over and over, as unsolvable math equations churned in my throbbing head. Sweat pooled underneath me and my aching limbs refused to support my trembling body 's attempt at escape. My arm dangled over the discolored sheets that had sunk down the side of my bed as drool dripped out the side of my mouth, pooling on the crumb-layered rug. It had been two days since I listened to music. I thought about the sweet sound of a melody that would take me away from this hell, a rhythm, and a tear rolled down my cheek, combining with the snot and drool that ran down my face. As my eyes twitched and my chest convulsed, I couldn't stand the pain any longer. I swung my seemingly boneless arm off my bed and, with pale and weak fingers, grasped my iPod, placed the headphones into my fiending ears, and let the sweet sounds of Waka Flocka penetrate every crevice of my body.

It seemed utterly impossible for the lack of music to have such an effect on a person, but though slightly exaggerated, the aforementioned occurrence did, in fact, plague me for two horrific days. And it could be said that it was merely a coincidence, but as soon as the sound entered my ears, my entire mood changed, and my physical condition followed shortly after. It has become clear to me, through this experience and others like it, that music and sound can drastically affect one's state of mind and physical being. My personal experiences made me wonder if it is just me who needs music. It has become apparent that music is a necessity in my life and there must be others who feel a similar connection. In my final project I intended to explore altering ones physical and mental state through music.

When I began my research for my final project, like much of my other "work," I jumped straight to the visual, final product, which my teachers' Patrick and Mo promptly scolded me for. I attempted to erase all preconceived ideas from my brain, and focused simply on sound itself. I

began to learn about wavelengths, frequencies, and modulation. As my research around sound dragged on, I digressed and recalled my trip to the MRI. It was truly the most amazing experience I have ever had. The sheer isolation and calmness that followed entering the space shuttle like tube was nothing like I have ever felt. This memory spurred a new burst of energy, which, with much effort, I channeled to pick up my computer instead of using it to punch my classmate, Devin, who worked rigorously beside me, or otherwise distract the students in the library. I learned much about the MRI, researching the types of sounds used, the acoustics, and the mechanical aspects, only to realize that none of it was particularly pertinent. I reached over to Devin's paper and scribbled on his notes, making them illegible. I checked my facebook, stood up, called my sister and then realized that what I truly was pursuing was the way the MRI made me feel and not the mechanics at all. I sat back down on the disintegrating couch, next to a grumpy Devin, and began researching sound in relation to emotions and state of mind. I learned of an interesting individual named Manfred Clyne who was one of the first to work with the connection between sound and emotion. I learned of a theory called Sentic Form and Psychoneuroimmunology. At this point I was beginning to get excited and decided on creating my own "MRI."

In my final project I attempted to experiment with placing the audience in an environment that shocks and transforms their mental state, whether that be making them sad, happy, or simply calm. I hope to test humans' relation to sound and music and see if others enjoy the glitchy, blaring noises of an MRI.

BIBLIOGRAPHY

Beauchamp, Robin. *Designing Sound for Animation*. Burlington, MA: Elsevier/Focal, 2005. Print.

"HowStuffWorks "How MRI Works"" *HowStuffWorks "Learn How Everything Works!"* Web. 05 Dec. 2011. <<http://www.howstuffworks.com/mri.htm>>.

Kannan, Govind. *Active Noise Control in an MRI Environment*. 2009. Print.

Popper, Arthur N., and Mardi C. Hastings. "The Effects of Human-generated Sound on Fish." *Integrative Zoology* 4.1 (2009): 43-52. Print.

Popper, Arthur, Svein Løkkeborg, and Robert McCauley. "Anthropogenic Sounds - Potential Effects on Fish." *The Journal of the Acoustical Society of America* 123.5 (2008): 2986. Print.

Pugmire, David. *Sound Sentiments: Integrity in the Emotions*. Oxford: Oxford UP, 2005. Print.

Takeshi Murata. Web. 05 Dec. 2011. <<http://www.takeshimurata.com/>>.

Van, Leeuwen Theo. *Speech, Music, Sound*. Houndmills, Basingstoke, Hampshire: Macmillan, 1999. Print.

"What Is Magnetic Resonance Imaging (MRI)?" *WebMD - Better Information. Better Health*. Web. 05 Dec. 2011. <<http://www.webmd.com/a-to-z-guides/magnetic-resonance-imaging-mri>>.

Adachi, Mayumi & Trehub, Sandra E. (1998). Children's expression of emotion in song. *Psychology of Music*, Vol. 26, No. 2, pp. 133-153.

Bever, Thomas (1988). A cognitive theory of emotion and aesthetics in music. *Psychomusicology*, Vol. 7, No. 2, pp. 165-75.

Butt, Tony, Paul Russell, and Richard W. Grigg. *Surf Science: an Introduction to Waves for Surfing*. Honolulu: University of Hawaii, 2004. Print.

Budd, Malcolm (1992). *Music and the Emotions: The Philosophical Theories*. London: Routledge & Kegan Paul, 1992.

Davies, Stephen (1997). Why listen to sad music if it makes one feel sad? In: Jenefer Robinson (ed.) *Music and Meaning*. Ithaca and London: Cornell University Press, pp. 242-253.

Elmore, William C., and Mark A. Heald. *Physics of Waves*. New York: Dover Publications, 1985. Print.

"Geometry - Reflection." *Math Is Fun - Maths Resources*. Web. 09 Oct. 2011. <<http://www.mathsisfun.com/geometry/reflection.html>>.

Kock, Winston E. *Sound Waves and Light Waves*,. Garden City, NY: Anchor, 1965. Print.

Levitin, Daniel J. *This Is Your Brain on Music: the Science of a Human Obsession*. New York, NY: Dutton, 2006. Print.

Lin, Maya Ying, Richard Andrews, and John Beardsley. *Maya Lin: systematic landscapes*. Seattle: Henry Art Gallery, University of Washington ;, 2006. Print.

Meyer, James. *Minimalism*. London ; New York: Phaidon, 2000. Print.

"The Reflection and Refraction of Light." *Home | Boston University Physics*. Web. 09 Oct. 2011. <<http://buphy.bu.edu/~duffy/PY106/Reflection.html>>.

Sparshott, Francis (1994). Music and feeling. *Journal of Aesthetics and Art Criticism*, Vol. 52, No. 1, pp. 23-35.

Turrell, James, Daniel Birnbaum, and Peter Noever. *James Turrell: the other horizon*. Sydney: Cantz, 1999. Print.'

Turrell, James, and Ursula Sinnreich. *James Turrell - Geometrie des Lichts = geometry of light*. New York: Hatje Cantz Verlag, 2009. Print.

Woodford, Chris. *Cool stuff and how it works*. London, New York, Sydney, Moscow,: Dorling Kindersley Pub., 2005. Print.