

Physics and Fire

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What is the best way to learn?

I am a paradox of raw emotions. I am claustrophobic, but agoraphobic; weary of body, but racing in my mind, and, like usual, my morning starts with my 8:00 am math class. Introduction to Mathematical Reasoning falls on A days while Calculus occupies the B days.

Each morning at 7:55 am I move my IKEA desk into the common hallway of our floor, right under the light fixture, just an extension cord away from the electrical outlet. Inside the apartment is filled with too much stimulation. My father, like a great commander, has claimed the territory of my parents' bedroom, and my mother and her laptop have been exiled into the living room, a room that will be shared by my younger brother and me. My brother, who sleeps in a tiny dining room with Shoji screens, also stakes his claim to the common space, and I now am playing a game of musical chairs.

Because my bedroom does not have WiFi, we are out one chair.

The hallway is a calm beige where I do not have to be subject to my father's Zoom calls, my brother's video games, or the nearly constantly changing news about the outside world from the computer or television.

Getting back to math, I watch in wonder as the matrices are multiplied and the three-dimensional objects are rotated around different axes. And, all the while, I wonder how this came to be...

How do you learn calculus when the world is on fire? When the world is rotating faster and faster so that you feel as though you want to get lost in your own dreams. Yet the dreams seem different now. The idea of love during COVID-19 seems almost illegal, and the fantasy of a vacation to Hawaii only would end up in an arrest for violating quarantine.

A few months ago at 8:11 am the Senior Girls in our school sent the entire school a letter telling us about all of the sexist incidents that they had encountered during the past four years in high school. I read this letter during my Introduction to Mathematical Reasoning class, and I could not reason how a school did not protect its young. And, that day, when I saw Minneapolis burning, I wondered how those who had taken an oath not to betray the public trust and to uphold the community would betray us so cruelly. During virtual gym class, I left my building and wandered onto the New York City streets. The Hudson River looked greener than usual, and the 20-somethings had taken over Riverside Park, but the elderly population was in hiding.

As I returned to my desk, and began my virtual physics class, I wondered if I could learn to make the world stop spinning. Could I reduce the entropy of my own universe? Yet, according to the Second Law of Thermodynamics, the entropy of the entire universe in a closed system will always increase over time. I am now in a closed system. I realize that I am in a closed system, one that does not interact in any way with its surroundings, given that I live in a closed city (New York City) and am socially distanced from my community.

Maybe a new law of physics can emerge that will stop the fires and pronounce a new truth.