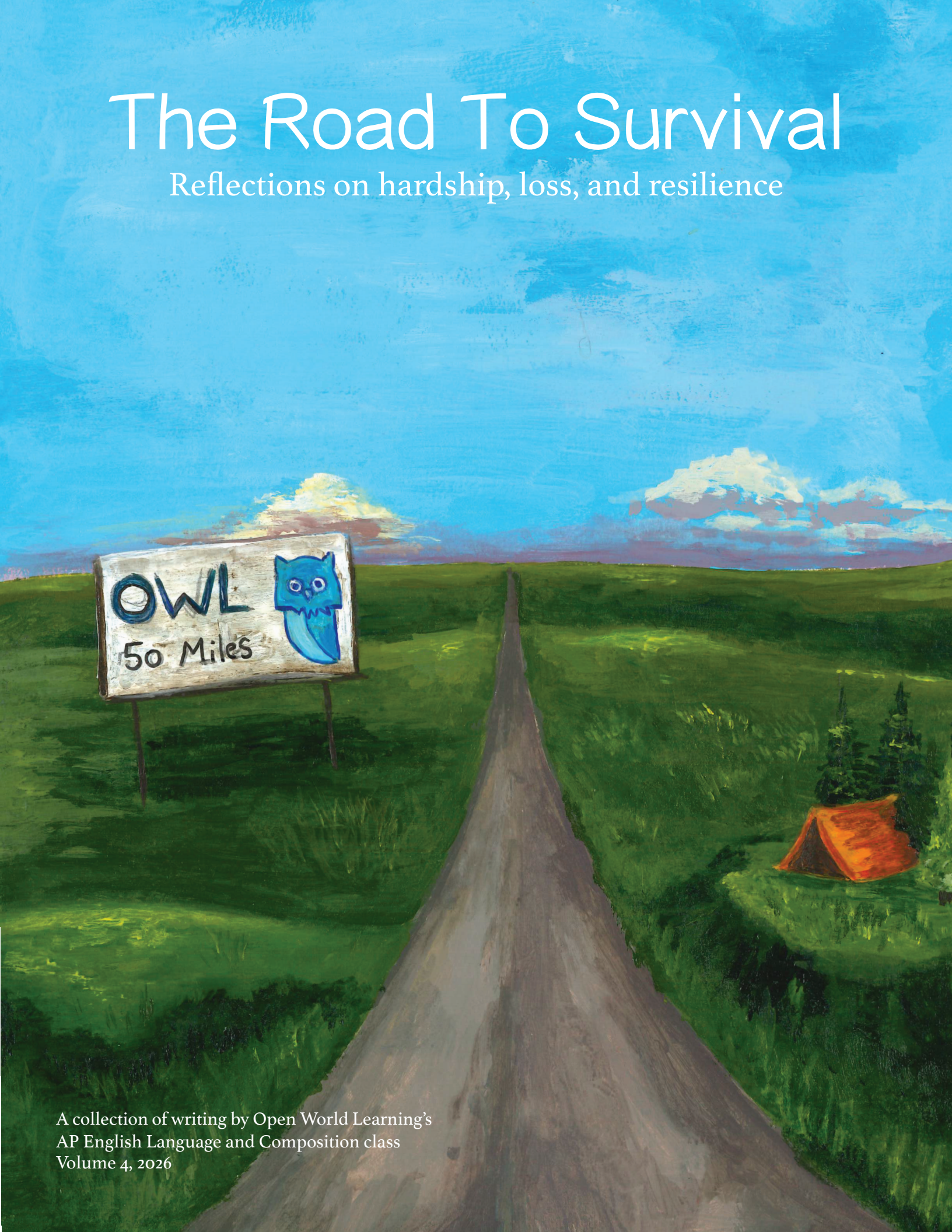
The Road To Survival

Reflections on hardship, loss, and resilience



A collection of writing by Open World Learning's
AP English Language and Composition class
Volume 4, 2026

Foreword

The Advanced Placement (AP) Language course asks students to think carefully about how and why people write what they write. In our pursuit of these questions, we throw terms around like exigence, rhetorical situation, audience, and persona. Frankly, some of these words were strange to me until I was indoctrinated into the AP Language subculture at a week-long training a few summers ago, but I have enjoyed watching my students gradually and grudgingly adopt them.

Once I felt confident that everyone was reasonably well prepared for the AP exam that takes place in May, I presented my students with a rhetorical situation that would help us round out the year: write about a person who has survived something difficult. As I expected, my students took a wide variety of approaches to this situation.

At one of the book's editor meetings, I recall Halie muttering something to the effect of, "Well, it's gonna be an hour's worth of boat stories for me." Each time I have done this particular writing assignment, I see different trends in what students choose to write about. No one chose to write about the COVID 19 lockdown, and fewer people delved into historical projects than the last cycle; but as usual I took great enjoyment out of seeing what people decide to tackle for this prompt, and how they decide to do it. The experiences of the assembled survivors range from heart wrenching to humorous to nauseating. What the essays all have in common is that I have asked students to use both narrative and exposition in their approach. The narrative is meant to draw us in and the exposition provides useful context as well as perspective. The exigence – why they chose these subjects – is nearly as interesting to me as the stories themselves.

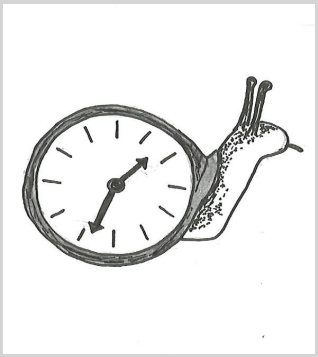
Broadly speaking, the essays fall into three categories: things that happened to the writer, things that happened to their friends or relatives, and things that happened to people they don't know but whose experience is interesting to the writer. All essays required some element of research, but the story is generally, if not more, important than the assembled facts.

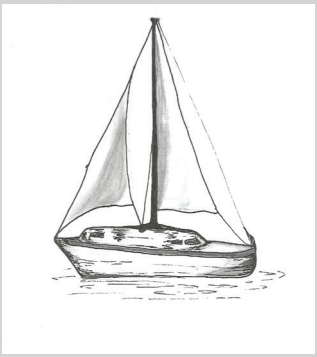
Over interim, a group of students gathered in my room to pore over the collection of assembled essays and turn it into a glossy and aesthetically pleasing publication. This involved many hours of editing, illustrating, and problem solving. To hear about this experience in their own words, see page 146. About halfway through the week, it became clear to Claire, my lead designer, that she was going to need even more time than the full week to make the 148-page magazine look like she wanted it to. On Friday afternoon, Claire took the layout computer home over the weekend to give the book's design the attention she felt it deserved.

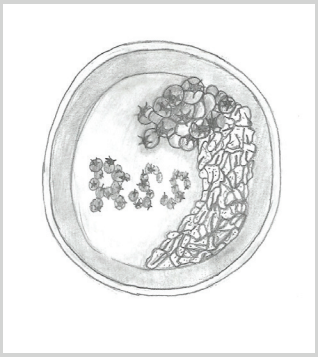
It takes a variety of unusual circumstances to create a tomb like the one you are holding in your hands. The student editing team spent hours giving the publication its shape, Claire's skill and high standards have given the publication its gloss and style, and generous funds from the PTO and various donors who responded to a Go Fund Me are what allowed me to pay the bill. I am indebted to my editing team, and thankful to all the people who helped make this audacious enterprise possible.

Leo Bickelhaupt











5	Outdoors	"This was the reality of your situation; we were now ill-equipped for our surroundings and had no control over what the river might give us."
24	Disaster	"His white coveralls were stained with the blood that dripped from a large cut on his forehead, and his eyes had swollen from contact with the acid."
42	History	"During the darkest days of the AIDS crisis, we buried our friends in the morning, we protested in the afternoon, and we danced all night."
64	Physical	"The positive reinforcement of it all, and the feeling of winning life over death and fear, is what made us so inclined to stick to what works."
87	Psychological	"I felt trapped, both by the food in front of me and the war inside my head telling me that I didn't deserve to eat."
114	Social	"She stares into his eyes, recognizing a strange glint of desperation and some other desire she can't discern."
130	Family	"Lily must've known. That was the only thing I could think of at that moment. Lily must have known something was wrong."

Outdoors



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Swept Away

Author's Note: The following is a true story about a rip current encounter while swimming with my little brother. I wrote this based on my own memory, experiences with waves since the incident, and personal accounts from my family.

Written by Lana Stevens

I grinned in delight as the next gray wave swept me up into the air. From here, I could see my parents on the shore, our bright umbrella stark below the thick, cloudy skies, struggling to stay put in the whistling wind. I noted that we were straying a little too far sideways from them; soon, we should make our way back.

The wave set my brother and me back down to earth; our feet plopped back down on the swirling sand below. My brother, Freddy, was laughing. I laughed too. We could already see the next big wave building out at sea.

"Come on, is that the best you can do?" Freddy yelled happily over the sound of the rushing water, splashing saltwater towards the growing wave. We'd had a running joke for some time now that in order to get the best hopping-waves, we had to entice the very ocean to give them to us. The familiar undertow began to pull us forward. We made fun of trying to keep our feet planted, but as always, the water was too determined to flow into the swells. We were no match for its strength. I had never feared this strength before, but this time I could feel something was different. Not only were we being pulled towards the peaking wave, but it seemed the water was swirling every which way. Seaweed yanked at my ankles as it jolted about the sea floor's currents. A nervous knot began to grow in my stomach. What's worse, the coming wave was reaching its crest, and we were too far away from it. It was double my height, nearly triple Freddy's—he was only a second grader. Should the crest crash on our heads, we'd be crushed by the mass of water and shoved underneath it all.

I warned my brother. "We have to get closer!" We were strong swimmers and had ample experience swimming in these conditions; he immediately understood we were in the wrong spot, at the wrong time. We dove forward and made it just in time to slip underneath the wave and ride the swell to the top. I heard Freddy laughing, but the twisting in my stomach remained tightly wound with my growing anxiety. We were farther out from shore than normal, now. We would have to hurry and swim inland after this wave…

That's when the wave passed, and instead of gently placing us back onto the sand, the surface beneath my feet was gone, and my little brother was nowhere to be seen.

It had been a calm, yet gusty, cloudy August day in Carlsbad, California, 2023. My family and I were on vacation, on a beach we'd been going to since my brothers and I were babies. Thinking back on it now, it was not a particularly inviting day to go for a swim. But, my brother and I were bored, had swimsuits in our hands and the ocean outside our door, and nothing was going to stop us from making the most out of our vacation. Nothing—not the weather, not the flags up the beach warning us of strong waves and currents, nor the fact that there was not a single other person swimming in the roiling surf.

At age fifteen, I had heard of rip currents from signs, lifeguards, and my parents, but I was never told what they were or to avoid them unless a lifeguard was telling me to. In a graduate study performed by Summer Locknick in Ontario, 500 beachgoers at Cavendish Beach were surveyed about rips. Only half of the beachgoers recalled seeing either warning signs or colored flags, warning them of rough or dangerous surf conditions, and hardly any of the people who remembered seeing the signs could remember what color the flags were (green for calm, red for dangerous). Professor Chris Houser's research, the man who oversaw Locknicks' work, had led to similar results. He believes that "A major pitfall in many communities' attempts to save lives from rips is assuming that the warnings work." Even if signs did work, the information could always be misleading. Rip currents can be extremely complex and can appear to look many different ways. It's just not possible to depict a rip current that is completely accurate and useful on a warning sign.

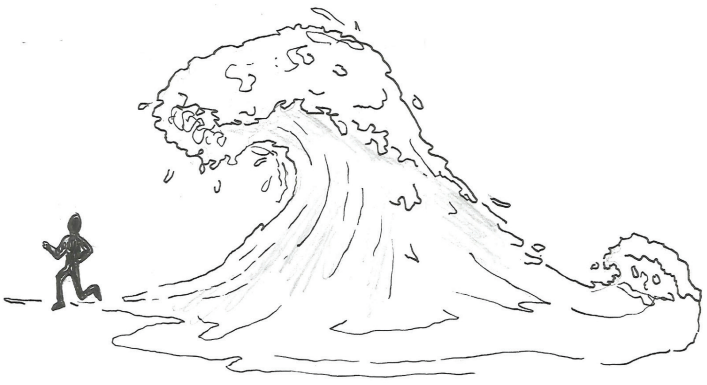
So, as my family walked onto the beach that day, flags and warning signs were far from our concern. We were just focused on having a fun beach day. Little had I known, I'd soon be panicked, searching for any sign of my brother within the swell of a dangerous undertow rip current.

I kicked my feet wildly, fighting to keep my toes poised on the sand below, enough to keep myself from being swept farther out. I had my eye warily on the next wave when I finally found Freddy. His head surfaced

from the water, and after a moment, all the water was rolling toward the next wave; we could touch again. I immediately grabbed his wrist, pulling us back towards shore as fast as I could—meaning, at a snail's pace. The water in front of us was rushing backward into the ocean as rapidly as a fierce river's current, and on top of that, it was directed at a diagonal due to the wind and the rip's feeder currents. Our feet tripped over the rushing seawater and the sand, and every time we placed one foot in front of the other, the undertow pushed backward to where we were. We had just barely advanced a couple of feet when I knew we would have to brave yet another wave. It was nearing its crest behind us.

Rip currents and undertows are not the same, and the two often get confused with each other. An undertow is a short-lived, sub-surface surge of water that is created when a wave takes form. These kinds of currents, I was very used to. Undertows occur everywhere, and all the time. The water crashes to shore, and the water rolls back into the sea—simple as that. A rip current, however, is much different and much more difficult to spot if one doesn't know what they are looking for.

Rip currents occur in shallow areas, anywhere where crashing waves happen. This kind of area is referred to as a surf zone. The process goes like this: they start as a large wave headed toward the shore. The amount of water it holds tends to be more than normal; now, there is an imbalance between the water in the surf zone and the water in the area beyond the sandbar. In turn, the water finds the easiest way to drain from the surf zone. This path is usually found in a break in the sandbar, like a break in a sandcastle's moat. Much of the water inside the surf zone now follows that one path back out to sea. Now, we have a rip current.



The path this new current follows cuts through the other waves and directly away from the shore. It will vary in size—a rip could be very narrow, or it could grow to be hundreds of yards wide. It's the same with length. Sometimes, the rip ends just beyond the breaking waves, but other times, it could push hundreds of yards offshore. As the rip grows, it needs more water to power it. This is when water is pulled sideways or diagonally from the surf zone to meet at the entrance of the rip's pathway. This is the main hazard that gets swimmers into trouble.

A rip's flow is strongest and fastest on the surface of the water, instead of below, like that of an undertow. Since a rip current is in the shape of a line, acting like a river cutting out into the sea, the easiest way to escape it is to swim parallel to the beach, instead of straight back toward shore. Of course, in order for a swimmer to do this, they would need to first understand that they are in a rip current, and they would also need to actually read the warning signs before entering the water. Having done neither of those things, my brother and I's only strategy we could muster was to swim directly back to shore.

Despite the looming wave at our backs, I did not want to risk going back out towards it again and losing our purchase on the sand below. I realized that we had actually gotten far enough away from the wave that we wouldn't be underneath it when it crashed. The only problem was that after it crashed, we would be slammed forward by the swash (the water that rushes up the beach after a wave crashes, also called an uprush) and get caught up in the surf (the turbulent water in the immediate vicinity of a broken wave). Despite this hazard, it was our only option. I firmly clamped down on my brother's wrist, and we braced ourselves for the risky impact.

The swash was as tall as me, and only a little under twice as tall as Freddy. The moment it hit us, my grip on his arm failed, and we were both on our own, flailing about in the rolling surf. When I broke the surface, my eyes stung and my nose and throat burned from the saltwater I had inhaled. I frantically searched for Freddy, but this time, he wasn't resurfacing. I called his name, and panicked when the backwash of the undertow was already moving again, pulling us towards the sea.

I noticed a darker figure underneath the foamy, still-swirling water. I dove my hand towards it, and felt my brother's foot. Without hesitation, I took his ankle

and pushed past the backwash as fast as I could. After a few moments, Freddy had recovered enough to find purchase on the sand, and together, we both ran towards the shore. Despite its dangers, the swash had pushed us forward, and we were in shallow waters again. After enduring a few more crashes and swashes, we made it back to shore, gasping with exhaustion and relief. When we had recovered enough to speak, I heard Freddy laughing. I was bewildered, but then adrenaline and shock were high, still flowing through my body. I laughed too.

Our encounter with the fierce currents had sent us nearly half a mile from our parents. Not only had we experienced a rip current, but we had also been shoved far, far down the shore by longshore currents. Longshore currents occur when strong gusts of wind blow at an angle to the coast. This creates immediate surface friction that drives water movement and generates waves that strike the shore diagonally and currents that move diagonally or even parallel to the shoreline. These gales of wind can also affect water buildup in the surf zone, raising the sea level higher than predicted. This buildup of water could have influenced the first large wave that birthed our rip current.

Statistics found from the United States Lifesaving Association (USLA) tell us that 80% of rescues performed by lifeguards involve saving swimmers caught in rip currents, and more than 100 deaths occur due to rip currents annually. Despite the evidence that rip currents are a major issue, people continue to neglect warnings.

In May of 2014, a family was swimming on a beach in New Jersey. "We were all together when I noticed that we were at the end of the fishing pier, which is pretty far out," recounted one family member. She warned her fiancé, and they began to swim back towards shore—when all of a sudden, the water was pushing back at them. They were stuck. Like Freddy and I, the crashing waves only made the situation worse; "Waves started crashing over me, and I couldn't catch my breath. Just then, a wave came, and my fiancé pushed my son, who was on his boogie board, towards me." She took hold of her fiancé and son, and they finally made it back to shallow waters. Her experience, as she remembered it, was very similar to mine. "We were stuck out in the current for only about 7 minutes, but it felt like an eternity. I just kept thinking 'Oh my God, I might die right now.' We were exhausted and pushed about a half a block away from where we started from." The thought of possible death had also kept me panicked, and was what had kept me swimming through my exhaustion.

In 2013, Kathryn was hopping and diving under swells just like my brother and I, when she realized how far away from shore she was. When she tried to swim back, the swells and currents kept pushing her back. In contrast to my situation, Kathryn knew how to swim away from a rip current (swimming parallel) and still failed to escape it. "I tried swimming parallel to the shore, but was still in a very strong current and began to tire quickly." She then spotted surfers not far from her and was able to swim out to them for help. Both she and the surfers made it back to shore safely. Kathryn wrote afterward, "I feel very fortunate that I recognized what had happened, knew not to panic, and was able to find a solution."

After walking back along the beach, my brother and I arrived back at our umbrella, which was easy to find on the largely empty beach. Despite migrating so far from our original location, our parents seemed unfazed as we sat on the beach chairs, chugging water from our water bottles to rid our mouths of salt and sand. Three years later, I asked my dad how often he took warning signs and flags seriously enough to decide not to swim. He reported, "25% of the time." When asked about how worried he got for my brothers and I when we swam in wild waters, he said he wasn't worried. "I trust you." When I asked my mom the same things, she responded differently; Very often she decided not to swim, and she explained that she gets "pretty nervous" seeing my brothers and I swim in less than safe current and wave conditions, though she noted that she trusts us. Freddy, however, reacted to the questions much like our dad. When asked if warnings ever stopped him from swimming, he plainly said, "No." He explained the difference between 'crazy' waves and 'big' waves. "When I see big waves, I don't really want to go, but when they are crazy waves, like when they hit really hard and fast, I want to go."

"I heard a lifeguard whistling," Freddy recounted the incident in the same interview. While we were running back to shore, we were in the lifeguard's view again, and he had whistled to warn us of the rip current. When we made it to shore, he called us and told us to avoid the area; the currents were strong today. Freddy recalled his memory of the escape. "Lana saved me and pulled me out; she's a stronger swimmer than me, and I think she saved my life."

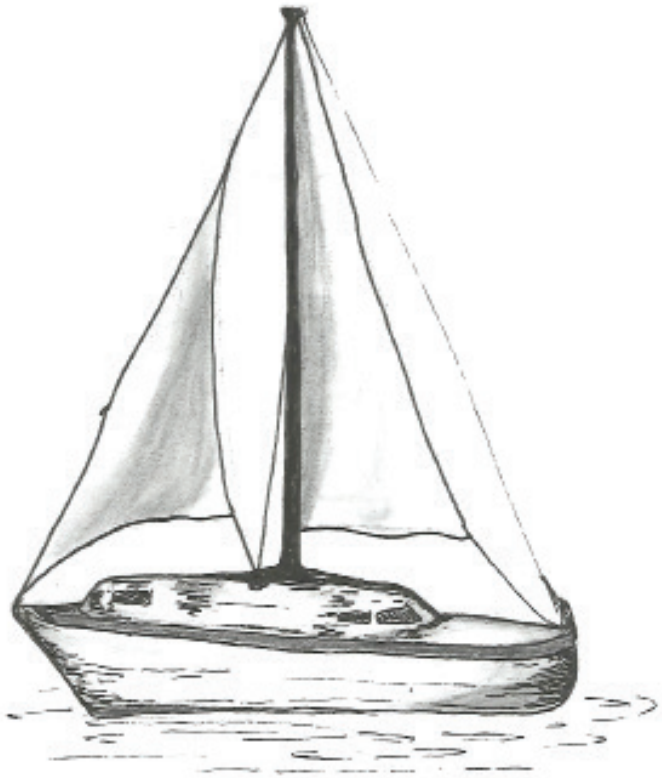
Sailing Through the Night

Editor's Note: This is Roman's personal account of sailing on Lake Superior and the challenges of operating a boat in harsh conditions.

Written by Roman Rufi

It was one of my last nights on Lake Superior. As a group, we decided to sail throughout the night This is a very risky decision, especially for a group of newer sailors. The night is no time to mess around on a sailboat. As we started our night shifts, I got to sleep first. I went to sleep at 8 pm and woke up at 11 pm. As I drifted off to sleep, all I could hear was the waves crashing against the hull and the engine roaring. Waking up, though, was another story. It was quiet. All I remember hearing was my captain saying, "Wake up, it's about to be our shift." Now I was pretty annoyed because my "sleep" felt more like closing my eyes and opening them. Going up on the deck, you need a harness, because falling off the ship is nearly a death sentence. I go up and take the wheel. Sailing through the night is like being in the belly of a whale. You can't see anything in the distance, just the things in front of you. As the wind dies down, we decide to use the engine. Now steering becomes just as easy as driving a car. As we reach our destination, I switch off the steering and hand it to my captain. I begin to make my way to the bow of the boat to drop the anchor, and the wind starts to pick up. Now I was worried, as I was walking down the deck, the boat was being hit by waves and wind, swaying it back and forth. I slowly get to the bow and prepare to drop the anchor. BANG, a giant wave hits the side of our boat. I'm thrown to the handrails on the side as this is happening, I drop the anchor, and it goes crashing into the water. I frantically grab the rope as it's falling. I firmly pull the anchor up, and my captain yells at me to drop the anchor again. It falls into the vast darkness. I guide the extra line so it doesn't knot up. Now, we pack up the boat to sleep. I choose to sleep on deck under the stars.

I have sailed Superior a total of two times in my life, but I plan on sailing many more times. My first time came in 2024 in the Apostle Islands. I got to go on this trip through a summer camp I did, YMCA Camp Warren. I went on this trip with my oldest friend, August. During that trip, we learned how to sail big boats in five days. Previously, we've sailed small boats meant for racing. I had been constantly obsessing about sailboats all throughout the year following that trip. To me, it felt like it could become a future passion that can be passed down to my children. The second trip I went on was under the same circumstances with the same friend and the same camp. But this time, we got to sail any part of Superior that we wanted, starting in the Apostle Islands. We went through the Apostle Islands up to Grand Marais, and along the shoreline to Duluth. We ended the trip down the opposite coastline back to the Apostle Islands, over a timeframe of 10 days. Our boat for this trip was a 36.7-foot cruiser/racer named Jalapeño. First off, a cruiser/racer, this means the boat's cockpit and cabin are built like a boat for luxury. While every other part of the boat was designed for racing. Traditional racing boats' cabins are hollow and don't carry much weight to make up for speed; all it carries are living necessities. Our boat sailed with two sails at once, a main sail and a Jib sail. Since our sail was part racer, we also had the privilege of having 2 extra jib sails and one extra main sail. Two Jibs we carried were a spinnaker, which is used for going downwind, as it's the biggest sail on the boat that's meant to catch wind. The other special Jib we had was not even a Jib; it's classified as a Genoa. What makes a Genoa special is that it goes past the mast, while a Jib doesn't go past the mast. You use the Genoa when the winds are weaker to get more power and speed. The final sail we had was a special racing Main sail. It was made out of carbon fiber, which is light, maintains its shape in high winds, and isn't affected by UV degradation. You could theoretically sail the boat and set it up by yourself, but that requires a lot of experience. It really took 3 people to raise the sails, one person in the front feeding the Jib, one person feeding the main sail(The same person can raise both Main and Jib, but just at different times), and the last person was pulling the ropes to raise the sails. To sail the boat, all you need is someone steering, while someone else is trimming the main sail. Trimming is when you let the boom out or in to decide how close the main sail is to the boat. This is for controlling your speed and tilt, especially in high winds. Whenever you switch sides, someone also needs to control the jib for switching which side it is relative to where the wind is



coming.

Wind through my hair, sun on my skin, the water was as blue as a sapphire. It was the perfect sailing day on the Great Lake of Superior. We were out in the middle of the superior cruising through the water going 6-7 knots(1 knot is 1.15 MPH). August, my best friend, asked if I wanted to steer. I accepted, and we switched positions. He went to help with ropes if we needed it. We start sailing and get some really good wind. Our peak speed was around 7.4 knots. After a while, I switched with my crewmate Drew. I finally get some rest after taking a long shift at the helm. Some time passes till we see a storm in the distance. We weren't on course for it directly, but some big waves and rain will definitely hit us. We're sailing pretty fast at this point, then BOOM, we go over a rogue wave, and when we hit the water again, our boom is flapping around. The drop broke our reefing line. Reefing is when you shorten your sail in high winds to stop heeling and being too fast. We catch the boom to stop it from swinging. Our captain decides to take down the main sail to see if there are any rips in the sail. Now sailing at a much slower pace of 4 knots is much more manageable, especially through rough waters.

The most unique thing about Lake Superior is the waves. Since it's so large, the wind travels over hundreds of miles, which makes the waves much larger than in a normal lake. It's smaller compared to an ocean, and the waves don't develop into smoother waves. Storms on Superior cause strong winds that make the waves grow bigger. This makes a ratio of the waves growing bigger than the time they have to smooth out. The waves can be rough on the boat's hull. "The sea throws walls of water at the boat." (The Perfect Storm.) If you survive on the boat, you'd better not fall into the water because of the freezing temperatures. To pair with those temperatures, the waves can be fierce and hard to swim in. One phenomenon that occurs is rogue waves, which are waves stacked on top of each other, which makes them around 2x taller than a normal wave. Being cautious is what saves lives for the superior. Sailors use different techniques to combat high-risk situations. Always being uncomfortable is a normality in these conditions; that's part of the job. "The fog moves in and out, and the tide comes and goes, but the one thing you can count on is that if you're a fisherman, you're going to be wet and cold. "You just have to get used to it." (The Perfect Storm.) Sailors live a high-risk life, always being in danger and never being comfortable. The more adventurous a sailor dreams, the more dangerous sailing becomes. Good sailors know when caution is near.

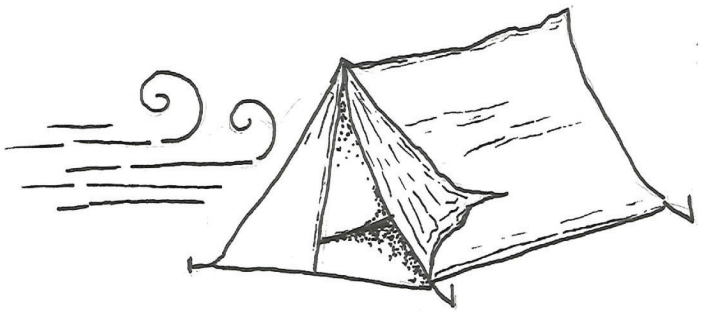
Strong Winds

Author's Note: The following is a true event. My family and I were on a camping trip when extreme winds hit our campsite. This recounting was recreated from my memories and accounts given by my family members.

Written by Johnny Gorton

I wake up in my sleeping bag to the sound of howling wind. The tent shakes as another gust rips through the campgrounds. "Hey, Mom?" I say. "The tent is shaking really bad." She replies with a sleepy "It'll be fine, go back to sleep." So I try to sleep, but as I lie there awake, the wind only gets worse and worse. I try to grab my mother's attention again. "Mom, it's getting worse." At this, she sits up and looks around the tent, flapping and rippling wildly in the wind. At this point, our talking has awoken my dad and brother, who are getting up now as well. As we all inspect the tent, the wind chooses that moment to cave it in.

At the time of this storm, I was with my extended family on a camping trip in southern Minnesota. It was the last day of our camping trip, but something known as a gust front was plowing straight through our campground. According to the National Severe Storms Laboratory, a gust front is defined as "the leading edge of rain-cooled air that clashes with warmer thunderstorm inflow." In essence, this means that the cool air being produced by the storm is being pushed down by warm air going into the storm and causing large gusts of wind with extreme force behind them. This type of wind is classified as straight-line winds.



As we left the tent, we saw that the rest of our extended family did not fare much better. It was mayhem as some of my cousins attempted to gather paper plates and napkins, blowing away, while others tried to pack up their things as quickly as they could. At this point, a light rain was starting to sprinkle from the looming grey clouds. As the wind grew in strength, the tent belonging to my aunt and uncle was ripped from the ground and blew into the forest with all of their things inside. While the storm howled on, my father and uncle looked for the blown-away tent as the rest of us frantically scrambled to pack up our belongings and leave while the rain was light.

"The tent belonging to my aunt and uncle was ripped from the ground and blew into the forest with all of their things inside."

Straight-line winds such as the ones blowing through our campsite are a relatively common and damaging occurrence. For instance, according to The Weather Channel, from 2020 to 2024, the U.S. averaged 17000 reports of straight-line winds over 58 mph. Each of these incidents can have severe consequences like overturning mobile homes, uprooting trees, and, in some more extreme cases, ripping the roof off a house. This incredibly common natural phenomenon causes thousands of dollars in property damage and dozens of deaths in the U.S. every year.

Below the Path

Author's Note: This is my firsthand account of exploring the Mississippi River bluffs. I definitely don't encourage you to follow in my footsteps; many of the things described below have changed since this story took place, so I cannot speak to their safety.

Written by Halie Karre

I stand a little bit below the sidewalk, my hands bracing me against the cold, wet limestone. The worn soles of my nearly antique Corcoran field boots are not quite as suited as my typical Vans for climbing, forcing me to make up for the tractional imbalance by either sliding down on my butt or crab walking backwards. Preferring to keep my pants dry, I opt for the latter. This is not my typical route as my first destination is different than usual.

The Mississippi River Bluffs in the Twin Cities are littered with holes. To explain why, one must first understand the geology of the Mississippi River Gorge. The first layer of stone you encounter on a typical descent of the river bluff is Platteville Limestone, a hard but relatively unstable layer, characterized by the abundance of fossils, and its tendency in more flora-bare areas to slide out from under your feet when descending. The next, but more minor layer is shale, which is somehow harder and more unstable than the limestone, and even more susceptible to erosion. This layer is fairly short, however, and as it is so similar to the limestone, it often goes unnoticed. The last, and most important layer, is St. Peter Sandstone. Sandstone is the softest, so it often erodes out from under the harder upper layers, leading to landslides. But it is also the most stable layer, as unlike shale and limestone, it doesn't tend to fracture as easily. These features of sandstone have made it an attractive choice for the construction of all sorts of tunnels, caves, and drainage basins throughout the Twin Cities.

While a few of the holes in the bluff are naturally formed, the vast majority are man-made. This is due to the relative ease of digging in sandstone. With enough time and a stick, it is very easy to carve into. Since the 1800s, man-made caves have been constructed in the bluffs, often for the storage of various goods, such as cheese and alcohol. However, almost all the caves now lie abandoned, with frequent bluff erosion and intentional immurement making them harder to access. As interesting as these features are, they are not why I am on the bluffs today. The bluffs are dotted with another, somewhat more modern, and more interesting–at least to me–structure. The humble storm sewer. All storm sewers serve the same general purpose: to get excess rainwater from above the bluff to below it while minimizing erosion. One would think that, given this purpose, storm drains would be relatively uninteresting and uniform; however, somewhat counterintuitively, I have never seen two storm drains that are the same inside or out. While caves have their allure, the stark concrete and brick construction of a storm drain is more tantalizing. I like to think of the people who dug into the bluff nearly a hundred years ago to form narrow passageways that still stand today.

There are two types of storm drains: drainage basins and bluff drains. These are not officially distinct, as they are both considered "storm drains" in the eyes of city planners, though drainage basins may sometimes be called trunk lines. The key difference between the two is scale. While drainage basins are often large, sprawling, and very long (you can literally walk for hours in some and still have a traversable tunnel in front of you), bluff drains are very short, as they bring water from directly above the bluff. Bluff drains are obviously the more boring of the two, but they have always been strange and exciting to me, particularly due to their obscure and unmaintained nature.

"The strangeness of it all intrigued me– what other unique and strange features lay undiscovered in under explored drains?"

My first bluff drain visit was actually unintentional. Much like many bluff drains, I was unaware of its existence until I was in front of it. I sat next to the distinct and highly challenging bluff-side entrance of the legendary east helix, a concrete block perforated by one singular hole stretching into the bluff. A slight lip sat on the lower half. Ten feet below, rocks. There was no



way this would ever be worth it, yet I decided that getting down would be the easy part. I could presumably swing into the hole if I hung onto the edge. The hard part would be getting back out; the distance from the ledge to the ground was too far to jump, forcing me to stand on the 3 inches of ledge and pull myself up. Risk-reward tells me it isn't worth it, but in all honesty, that has always motivated me toward the opposite, so I go for it. I hop down, managing to land on the ledge. The drain is terribly disappointing, so disappointing that I took no photos of it.

For whatever reason, I continued to explore bluff drains. And good thing I did, because soon after I found something that proved it all worthwhile. Oftentimes, when walking along the bluff, it is easier to survey the other side than the side you are actually on. While an entrance might stick out from the other side, when you're actually on the bluff, it can be quite hard to find. Such was the case on one morning when I found myself walking along the Minneapolis side after exploring a relatively lackluster corrugated pipe that led to basically nowhere interesting. Minneapolis drains are always a drag, I thought. Even the well-touted Amphitheater Drain doesn't have any interesting internal features. About that time, I spied several drains on the St. Paul side of the river. One immediately stood out to me, a stark, ungraffiti'd exterior, its strange opening making it appear like a doorway straight into the bluff.

A few hours later, I would find myself in St. Paul and endeavoring to reach it. I descended the bluff at Shadow Falls park; from there, I would continue south along the bluff. Not long after I reached the first challenging section, a sheer cliff where another drain let out, a small circular pipe that transformed into a sort of Reuleaux triangle shape. Uncharacteristically, I didn't go beyond a few feet in, despite the fact that I had gone through the non-trivial affair of reaching its entrance–the path to the entry required me to hug the wall and wedge my feet into the soft sandstone, but there was no time to waste. Climbing up and over the top of this cliff was an adventure all its own, and not wanting to put my faith in limestone, I stuck to the lower sandstone "path," about a foot and a half wide at points and slippery. The direct drop to the river below would have been hard enough, but the limestone layer overhung above it, forcing me to carefully crouch under it. Getting back down to river

level wasn't any more fun, carefully sliding from ledge to tree and back again, where a loose branch or rock could very easily send me into an uncontrolled descent into the river. I would have to do this again with another similar cliff before I could make it to the entrance, I had noticed. But before it even came into my sight, there were obvious signs of collapse.

"I spend the descent crawling from tree to tree, making my way downward, I cannot see the drain. I have no idea if I am descending anywhere near it."

A bowl-shaped pile of limestone rubble lay at the base of the bluff. There was still a slight overhang, but I assumed it didn't even compare to how it was before the collapse. It all made sense now. The lack of graffiti was because this entrance was new, further evidenced by the fact that it barely lined up with the inner drain. The inside was strange. The walls appeared to be brick, but were covered in some sort of cement that resembled a popcorn ceiling in texture. It terminated 40 feet in at a concrete chute with a metal plate at the bottom– a pretty typical design for these kinds of chutes. The strangest part came before the chute, though; another passage ran above the main one, almost "clipping" into the top section of the drain. Stranger yet, when I climbed into this section, it was completely dry, with no signs of erosion on its stone block floor. There were also two ladder rungs near the ceiling with an unclear purpose. The passage was bricked off 10 feet in. I could write a whole paragraph speculating on why it was there. If I had to live in a storm drain, I know where I would live. The strangeness of it all intrigued me– what other unique and strange features lay undiscovered in underexplored drains?

As you may be able to tell, bluff drains, despite their frequency, are quite hard to access. The lack of explorers actively seeking them out makes pre-made paths non-existent, forcing you to chart a course along the bluff, often missing the drain elevation-wise, forcing you to either perilously descend a sheer bluff or reroute to the entrance on the correct elevation.

On another day, my first destination is a bluff drain right off of Triple Helix, an almost world-famous storm drain. While this descent may sound difficult, it will probably be the easiest one I will do all day. The entrance sits above a puddle that runs off into the river, allowing me to simply walk in. The concrete very quickly transitions to brick, the tunnel forming an egg shape. About 30 feet in, the brick terminates to an open sandstone ceiling. This is as strange as it is common in St. Paul side bluff drains. I check it out, take too many pictures, and then leave. What awaits is a fairly easy and gradual section of bluff, but not so gradual that it won't start to wear on my right ankle after a while. If there is any annoyance, it could most likely be attributed to the number of downed trees and bushes that line the route. Because of this, it is not even seven minutes before I reach my next bluff drain. This one is new to me and has a taller and narrower opening compared to the previous one. Right before the sandstone section, there is a short (both in height and distance) section of what I call popcorn ceiling concrete, and once the sandstone section is reached, the drain widens significantly before narrowing for the chute at the end.

After several more drains, including one where police drove over the top (which I admit spooked me a bit), I headed across the Franklin Avenue Bridge toward my last destination. As I walk into Minneapolis, I never take my eye off it.

On the Minneapolis side of the river, I find my reckoning. The bluff is just the right angle that I can climb it, but so steep that there would be no catching myself if I slipped. The only path on this section sits high up on the bluff, giving me no safety to easily return to. Better yet, much of the terrain is covered in brambles, the shape of the bluff funneling me into them.



I spend the descent crawling from tree to tree, making my way downward. I cannot see the drain. I have no idea if I am descending anywhere near it. When I reach the bottom, I realise I am off by a few hundred feet. This would be no problem if it weren't for the fact that I am on a 70-degree incline that only gets steeper as I approach the river. I choose to inch my way along the bluff, straining my already worked ankles from walking sideways all day. When I reach the entrance, something is very off. The first thing I notice is the fence on top of the "face" of the drain. Likely to prevent what I am about to need to do, because of the second thing I notice, which is the lack of a platform in front of the drain. Although the opening is above water level, there is no channel or platform between it and the river. My typical strategy would be to get on top of it and swing down into it, but the fence makes that less of an option. I considered turning back, but I then noticed a third thing that changed everything. The front of the drain looks as if it had been ripped from the bluff. There was a large opening in between the "face" of the drain and the bluff part, several cracks in fact. This was significant as it could allow me to slip in through the crack. However, whatever had split the drain had also eroded all around it– an unstable-looking mixture of roots and dirt spanned the gap. As I am not particularly enthusiastic about tightrope walking on tree roots over a significant gap, I decide I have to move to the other side. This is no mean feat, as I am currently sitting under the tree that produced said roots and have to climb around it. Getting above it, I find that I will have to cross over the edge of the indent created by the collapse. While falling would be far from deadly, it could be enough of an injury to inhibit me from climbing back up. With this in mind, I carry on. When I make it to the other side, I must carefully lower myself onto a safe-seeming part of the concrete and downed branches before I can finally crawl through the hole and into the drain. The drain spans back about 40 feet before ending.

"One immediately stood out to me, a stark, ungraffiti'd exterior, its strange opening making it appear like a doorway straight into the bluff."

Re-ascending up the bluff, while easier, is my last straw for the day. I have always found that getting to a drain slowly and getting out quickly is the best strategy. Descending quickly is an obviously bad idea on many physical fronts, but also mentally. One of the benefits of a slow descent is that it gives me time to reconsider and not do something too dumb. But when climbing, I like to go fast so as not to lose my nerve or momentum. This time is no different, scrambling from tree to tree, literally clawing my way back up at points, the bluff only getting steeper as I climb. I reach a large tree, pulling myself up by its roots, and I climb onto the square foot of level ground it has created. I lean against the tree, my back to the river. The path above me has seen better days. Its retaining walls are made of old railroad ties secured by stakes made of steel pipe, the wall itself nearly collapsing outwards. One last push, and I will make it back up there. Substantial trees become more sparse as I approach the path. For every two steps I take, the ground slips down one. Grabbing onto anything, I pull myself up to the path, only then looking back down.

In 2013, two kids were killed in a landslide at Lilydale Park in Saint Paul. They were on a school trip and were not doing anything that could be thought of as dangerous. According to MPR, city officials had no idea about the lack of stability in the bluffs or that there was any danger. This wasn't the first unpredictable landslide, and will likely not be the last. What was more horrifying was the descriptions of first responders trying to dig people out, "It was quite surreal. It was reminiscent of how you would imagine quicksand." The more you dug, the more sand fell on top of you," said police officer Amanda Heu in an interview with the Pioneer Press.

Is exploring the bluffs any sort of worth it? The rational cost-benefit analysis says no. Then why, even now, sitting here in the early spring, do I wish to do it again? Maybe a new, harder-to-reach one. Actually, maybe even the same drain. I don't have very good photos of the outside, and investigating its unique face could be very interesting. I think I should at least document it better. There is no reduced risk in attempting it a second time - really, it would just be tempting fate- yet you gain a certain ego every time you do it, touting it as a skill that can be honed. However, one must know that experience or practice can't save you from a landslide, a misstep, or a random set of circumstances. Even if you can avoid bad weather and conditions, there are still few guarantees.

Beneath the Waves

Author's Note: The following is a true story about a canoeing experience my dad had in the Boundary Waters. In order to write this, I interviewed my dad and Kent Miller. Additionally, I conducted research on the history and overall information of the Boundary Waters.

Written by Clara Crosby

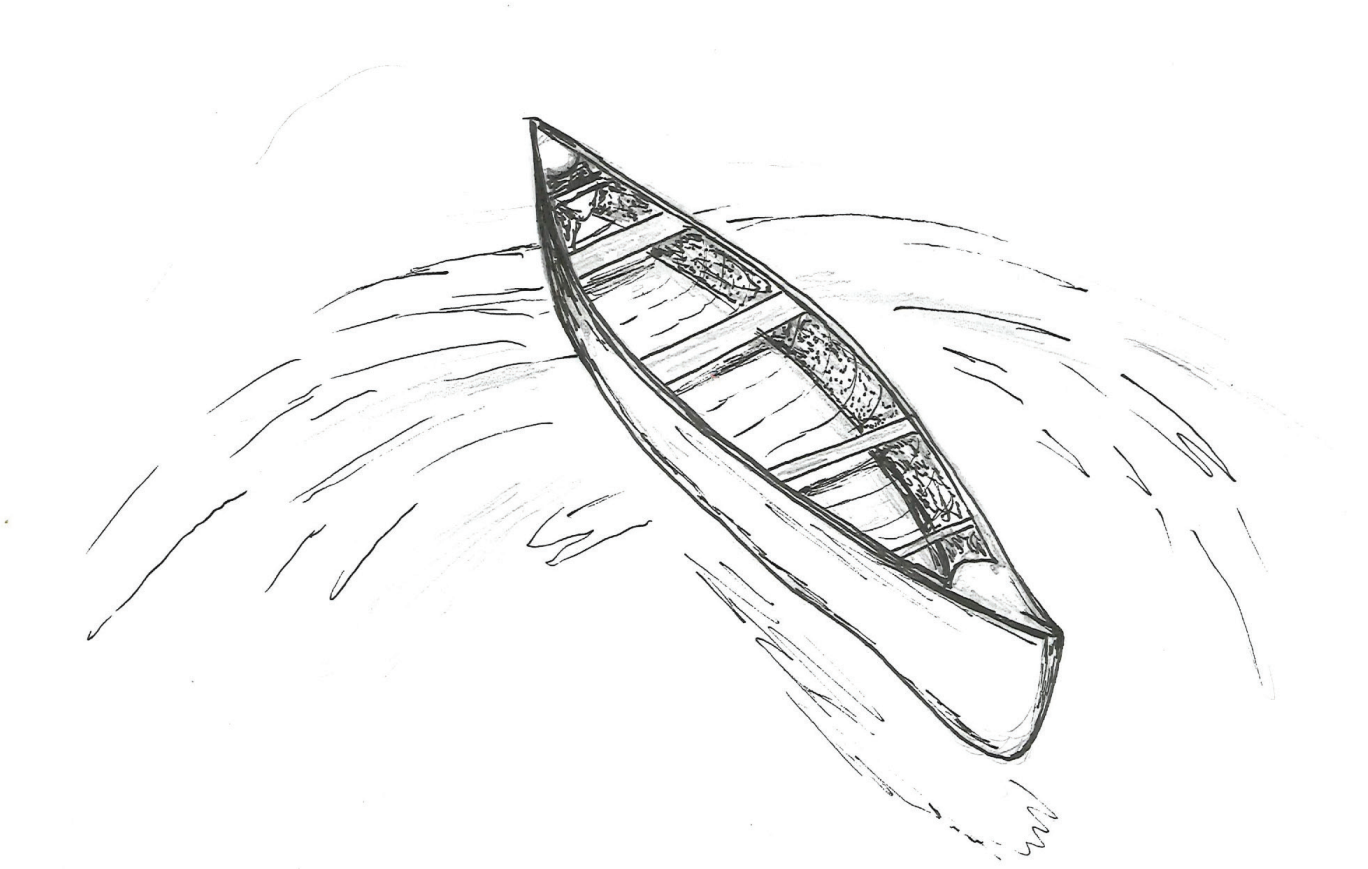
When my dad woke up at his campsite in the Boundary Waters, it was a very chilly September morning. The air was 40 degrees Fahrenheit, the sky was gray, and the wind was only beginning to whip around. He and his friends were on a canoeing trip, and the plan today was to paddle North on Lake Alton to the portage on Sawbill Lake in order to return to their cars. Picture Alton Lake as so: a bat in flight, with its wingspan extended. My dad and his friends were cutting northwest from the southwest corner of Alton, where their campsite, 848, was located. Alton Lake is accessible only through an entry point at Sawbill Lake. Because of the chilly weather, everyone dressed in warm layers. "I had four sweatshirts on, long underwear, heavy Carhartt pants on top of that, and thick wool socks," recalled my dad. After preparing themselves and the canoes, they left their campsite. At this point, the weather was still dismal but manageable; it would soon take a turn for the worse. The conditions became very uncomfortable. The lake was slate gray. The wind was powerful enough to cause the trees on the shorelines to bend and groan. Rain began to pour down on my dad and his friends, and the water began to fill their canoes, their feet surrounded by the cold water. The water continued to rise, filling the whole canoe up to the brim. The powerful wind created big waves. Suddenly, a wave so big engulfed my dad's canoe, and he and all his equipment were thrown off into the freezing lake water of the Boundary Waters.

The Boundary Waters, founded in 1978, is one of the most visited wilderness areas in the United States, with more than 1,100 lakes to canoe and portage through. It is over 1,098,000 acres in size, and it extends along the border of the United States and Canada, with nearby national parks including Voyageurs National Park and Quetico Provincial Park. The Boundary Waters is an environment that is very important. It is the homeland of indigenous people. It offers a serene and quiet place for people to take a break from the light pollution in the cities, and from the typical bustle of Minnesota lakes that are filled with motorized boats. It is also the home to many endangered species. While the pristine waters and isolation are aspects of the Boundary Waters that many people seek when they visit, it comes with safety risks. Help in these isolated areas is not readily available. Abrupt changes in weather and consistently cold water temperatures that pose the threat of getting hypothermia are common hazards in the Boundary Waters.

"Wind is the ultimate game changer on any trip to the Boundary Waters." The wind in the Boundary Waters is no joke. People have gotten into injury-inducing accidents because of the wind, and some people have even lost their lives in these accidents. Winds in the Boundary Waters can reach up to 25 mph. When the wind reaches these speeds, it becomes very dangerous to travel, especially on Alton Lake. Because of its wide width, the wind is even more dangerous and creates capsizing waves. It is also extremely hard to paddle northwest when the winds are blowing southwest. Many people in the Boundary Waters have been windbound, causing them to have to stay at their campsite for more days than intended.

"The water continued to rise, filling the whole canoe up to the brim."

Treading in the water after being thrown off his canoe, panic started to take over my dad. His friend, who was in the canoe with him, was frantically swimming to shore. "My initial thought," my dad says, "was to retrieve all of my gear and supplies that had been thrown off of the canoe." When his canoe had tipped over, his other friends were further ahead of him. They had noticed him stranded in the water, but they were laughing, only realizing how frightening this experience was afterwards. He treaded in the freezing water, his legs hurting and fighting to stay above the capsizing waves and the continuous downpour of the rain. At one point, he became so weighed down from the heavy apparel that he had to kick off and abandon his waterlogged shoes. He feared that because he was poorly equipped with no life jacket to support him and his legs were aching, he wouldn't be able to keep himself afloat for much



longer. It was at this point that he gave up trying to get all his things from the water and figured his best option was to try to swim to shore and join his canoe-mate. His other friends circled back just as the rain was slowing and the winds were fading. Having no energy to try to lift himself into his friends' canoe, he clung to the edge, exhausted, as they paddled to the shoreline. After taking a breath onshore, my dad ventured out to overturn his canoe that was bobbing in the lake. They paddled to their final portage and gave sore muscles a rest before moving to Sawbill Lake and the final paddle to their car. They made it back to the car in one piece (but with no shoes). "It was one of those things where you could not get the chill out of your bones. I didn't get warm that day for a couple hours afterwards," he recounts.

"He treaded in the freezing water, his legs hurting and fighting to stay above the capsizing waves and the continuous downpour of the rain."

Although he had this bad encounter with the weather, my dad still thinks very highly of the Boundary Waters. "It is very special and one of the coolest spots in the state of Minnesota," he says. My dad noted that the Boundary Waters is so important because it allows you to get away from everything that has become a regular part of most people's lives, such as checking your phone/social media or watching TV. "When you get to the Boundary Waters, it's back to how humans once lived, and it's beautiful." The feeling of being uncomfortable in the Boundary Waters is a familiar one for people who visit there, as I learned further from talking to Kent Miller about his many experiences in the Boundary Waters. The dichotomy of going to the Boundary Waters is something that interests Kent. He has encountered near-death experiences there, but explains how, for him, it's more of a reason to go. "It puts you at the edge of that intersection of thrill and peace," he says. Kent and my dad's experiences in the Boundary Waters don't diminish the importance of the area, and they both agree that it is worth the feeling of discomfort. While it can be a challenging environment to navigate and possibly put you out of your comfort zone, it is a beautiful and unique land that deserves to be protected and preserved for everyone to enjoy.

Isolation

Editor's Note: This is Collin's account of the mental challenges of being isolated while on an Outward Bound trip.

Written by Collin Larson

Rain makes rather different sounds depending on where it lands. On a tin roof, it echoes, sounding like rocks hitting a can. When it's deflected by a raincoat, it makes a wet, hollow sound, a kind of futile protest. Rain hitting skin, though, makes little to no sound at all. I was becoming very well-acquainted with all the different sounds rain can make as I sat, knees pressed against my chest, coat draped over my head and shoulders in an attempt to keep out the wet. Huddled as I was on a lifejacket, which, in turn, lay on the muddy forest floor, I tried my best to ignore the cramping in my knees and lower back by focusing on other things. I found myself counting the seconds after each flash of lightning that illuminated the trees around me in stark white light, hoping that I'd get to ten before the explosive crack of thunder rattled my eardrums. I never did, and so I resigned myself to my fate–several hours more spent huddling under my raincoat and shooing away mosquitoes at three in the morning in the Boundary Waters.

Only hours earlier, I'd been relaxing on a pleasant, sandy beach at the island where the rest of my canoeing group—eight of us, all told—had decided to camp for our first night in the Boundary Waters Canoe Area (BWCA). The beginning of the evening proceeded without issue, aside from a distant front of ominous storm clouds brooding on the horizon. By the time the first raindrops started pelting down, we had hastily prepared a dinner of warm macaroni and cheese as we huddled under a tarp. Shortly after, when the first bolt of lightning was followed in short order by a rumbling clap of thunder, we were hurriedly organized into what the Voyageur Outward Bound School—through which we'd accessed this program—referred to as a "lightning drill." Part of the standard VOBS procedure in the BWCA, lightning drills are a safety procedure designed to minimize the risk of injury from lightning strikes. Participants must sit on their lifejackets without touching the ground, and each individual is far enough from one another that any potential ground current will only strike one person. Morbid, I know. But it's effective, and those kinds of things are generally there for a reason.

After my ordeal, I'd return to find that all of my clothes—including those I'd been intending to sleep in—were soaked through in several inches of silty water that had risen around our tent. At the moment, though, I had more immediate things I had to focus on. Out of the corner of my eye, I noticed a flash of movement between sheets of rain. I twisted as much as my cramping legs would allow, but saw nothing. A few minutes later—and by a few, I mean anywhere from five minutes to half an hour, since my sense of time had gone out the window a while ago—I heard what I thought were footsteps somewhere in my vicinity. I was convinced I was going crazy. The answer, however, was much more complicated than that.

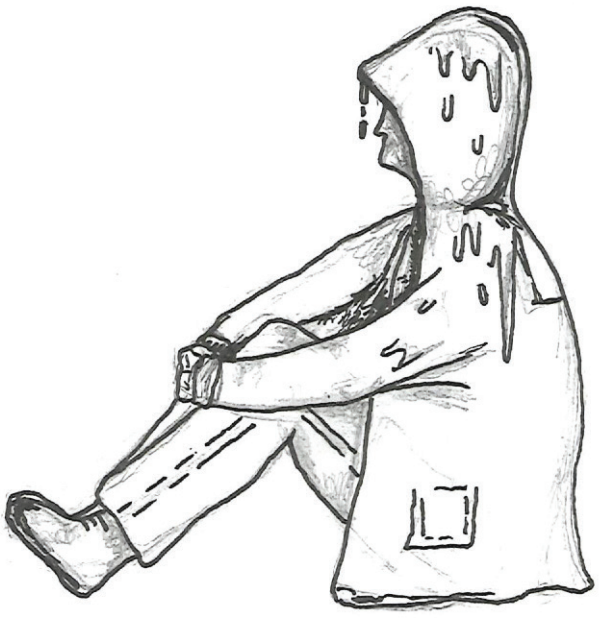
There is a phenomenon that occurs when a person is isolated or deprived of one or more senses for an extended period of time. These two factors often work hand in hand, both serving to further exacerbate the severity of effects caused by the other. Isolation, or being physically and socially distanced from other people, is the primary cause of loneliness. Significant or extended loneliness, in turn, can cause an extreme immune response, hampering mental and physical capabilities (reasoning, problem-solving, spatial awareness, etc.). When combined with sensory deprivation (that is, being unable to obtain information through one or more senses), isolation can cause people to perceive things that are not actually there—in a word, hallucinations. Hallucinations that are induced by isolation alone, or that are influenced by a state of isolation, tend to revolve around social interaction, as proven by several studies. Specifically, a lack of connection can cause

"I found myself counting the seconds after each flash of lightning that illuminated the trees around me in stark white light, hoping that I'd get to ten before the explosive crack of thunder rattled my eardrums."

perceived connection (voices, laughter, the sensation of being touched, etc.).

The loss of my sense of time is also, I would later learn, a documented phenomenon that tends to occur when a person is limited to their own internal clock to tell time. In one case, French geologist Michel Siffre headed a study of a subterranean glacier under the French Alps. Although the expedition was supposed to last only two weeks, Siffre decided to remain underground for two months in order to study the effects of complete darkness on the human body. One observed consequence was that Siffre's sense of time became dramatically warped; on one occasion, Siffre's surface-based research team, while conducting tests, found that it took him five minutes to count to what he thought was 120 seconds.

As I sat there, huddled into a ball for several hours, I was beginning to experience these minor hallucinations. Several times, I heard voices in the rain, talking or laughing, and considered calling out to the people I knew were within shouting distance. I didn't, both because I didn't want to alarm anyone (everyone was silent except for the occasional shouted head count) and I didn't want to be seen as crazy when my hallucinations were dismissed. The footsteps, voices, and movements continued; eventually, spots of light began to flicker in the corners of my vision, little kaleidoscopes of yellow and blue and pink. This, I learned through research, is another common isolation-induced hallucination. In this kind of detached state, minutes dragged into hours, and I eventually lost track of time entirely. At this point, I closed my eyes and started willing the storm to pass, focusing on memories and thoughts of home, family, and cats to keep myself grounded.



Visual hallucinations are another recorded side effect of physical isolation. The reasons for these hallucinations aren't exactly clear; maybe it's just our brain's way of entertaining us without external stimulation. In any case, the effects can be rather dramatic—much more so than what I experienced. In one study, several college student volunteers were subjected to several hours of complete sensory deprivation. Many of the students gradually became anxious or experienced severe mood swings and often struggled with reading and math-related tasks. The symptoms became so severe that the study was terminated after only a few hours. Said students later reported hallucinations, beginning with light, lines, or shapes similar to what I'd seen before, shifting to strange scenes involving anthropomorphic animals or objects.

Eventually, the storm did pass, just enough that we were able to make the winding trek back through rain-lashed trees and muddy pools to our campsite. I walked in silence, moving slowly to allow my cramped knees time to adjust, and was thankful for the company of others that helped to clear my mind. Through snippets of conversation, I began to realize that I was not alone in my experience; things like "I thought there was a bear!" and "That wasn't you?" confirmed that several others had been through a similar ordeal. When we reached our tent, we were shocked to find that the silty water of the bog around us had risen several inches over the bottom of our tent. At that point, I was much too tired to care, and so I fell asleep as soon as we'd moved the tent to a higher elevation. The rest of the week-long trip passed without incident, although I was always on the lookout for dark, low-hanging clouds that could indicate a repeat of the experience.

River > Me

Author's Note: This essay is about bending to the curve of nature. I am using my Arctic canoeing journey on the Coppermine River as the main reference. I am narrating the most captivating "survival" moment that occurred towards the end of the trip. To contextualize this trip I used my personal journal, researched Nunavut and the Northwest Territories, and explored books written about topics surrounding the power of nature such as Rewilding and The World Without Us.

Written by Maddie Linstad

The Arctic air stung my cheeks. I was sitting in the front of a canoe paddling down another rushing rapid, trying to dodge rocks and hit the waves in a way that balanced just right. We made a plan for this set prior to paddling it, and we were doing our best to follow it. I checked ahead of me to see how close the leading canoe was. My heart dropped. Their boat was quickly filling with water. My trail mates in the front boat were paddling hip-deep in the river. My trailmate and I knew that in this moment, we had to save ourselves and our boat first before this became a domino effect. We angled our boat towards shore and navigated the river until we could ease out of the current. When safely on shore, we saw our two trailmates soaking wet and hugging each other down shore. Their boat was barely visible now, flying down the river. All of its contents were floating out of it in all directions. This was only the beginning of a big change to our routine.

I am very far from home. I am on my 33rd day out of a 40-day Arctic canoeing expedition. Through YMCA Camp Menogyn, I have been paddling the Coppermine River from nearly its source to the Arctic Ocean with three other campers and two trail guides. This journey truly began months prior when my group began planning and prepping our route, meals, and inventory. We finally got together the week after summer broke out. We had 2 days at Camp Menogyn to get everything ready to go before driving 9 hours to Winnipeg. After that, we took 2 commercial airplanes to get to Yellowknife, 2,120 miles from my hometown of Saint Paul. From there, we took a float plane to Providence Lake, where we were left alone until the end of our trip. Just us and the Arctic until August. Our route began in the Northwest Territories on large lakes that feed into the Coppermine River, our primary route. We will cross into the Nunavut territory a quarter of the way in and into the Arctic Circle halfway through. Our trip will end once the Coppermine pushes us out into the Arctic Ocean, in Kugluktuk, Nunavut.

There was no time to panic. We immediately went into action mode. Our two remaining boats were beached very far away from the river, and we emptied all of the contents out to figure out what bags and items were still with us. Luckily, we had our tent, our bag with the satellite phone and medication, and our dinner and breakfast packs. We also had out 2 bear barrels of food, and 4 of our personal packs. That meant, though, that we were missing our lunch pack, Addie and Phoebe's personal packs with all of their belongings, a pack with daily essentials such as rain gear and sunscreen, and our wannigan. Besides losing the boat itself, the wannigan was a huge blow. It held our stoves, pans, and all the rest of our cooking gear. Without these items, it meant that a lot of the food we were carrying, such as pasta, rice, powdered eggs, and more, was now just extra weight. I also felt awful for Phoebe and Addie, who lost so many beloved items, such as their clothes, their sleeping bags, and their journals and books. We really needed to get those items back, so Val and I decided to go in one of our canoes down the river to hopefully find any of our missing items.

"This meant that we could not paddle whitewater anymore, since any waves would immediately wash into our low sitting canoes."

It was a bit difficult choosing our river of choice for our Arctic trip. During our planning stages in the winter and spring, we discovered that Canada instilled new laws around how far you can fly by float plane. This was for environmental reasons to hopefully cut down on float plane emissions in primarily untouched land. Although we understood the importance of this law, it eliminated two of our potential routes, leaving us with our third option: the Thelon River. Although the The-



lon is a great option, we already knew that three other Arctic groups would be there too, and we wanted to have more isolation. That's when our guides looked into the Coppermine River. It had both tundra and taiga biomes, and a fast-moving technical river. The only thing, though, was that YMCA Camp Menogyn hadn't paddled it since 2018 due to "too complex whitewater." The thing about camps that do outdoor expeditions is that you want to challenge and excite your campers, but also understand the immense risk factor. These outdoor trips are incredibly life-changing, but have also had a lot of dangerous moments. The balance between opportunity and risk is something that has to be considered with every trip. Although the Coppermine had a reputation at Menogyn, we felt very passionate about choosing it for our route. Truly, the biggest reason we were able to actually do it was that one of our trail guides worked at Menogyn over the winter, and kept talking about the Coppermine with our camp director. Finally, after a lot of thought, he agreed.

"Losing that boat and most of its contents on the river was a smack-in-the-face reminder that we were simply just passing through the natural world around us."

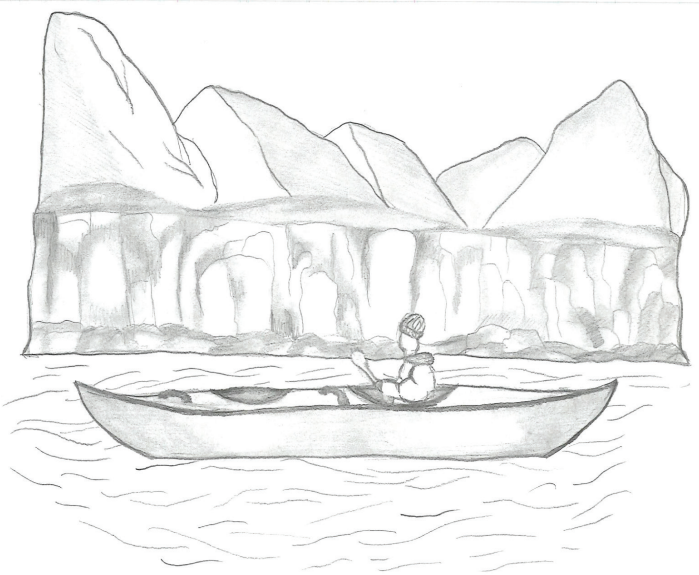
With just me and Val in the boat and no packs to weigh it down, we could easily navigate the river. Usually, when canoeing, our group loves to converse, but this time we were too focused on trying to spot swimming backpacks and an overturned boat. We moved as slowly as we could, sticking close to the river shore. A bit later, I was ecstatic to finally spot a pack lapping on the shore. As we got closer, we saw 2 more packs and a container of peanut butter. We had found Addie and Phoebe's personal packs, our day pack with vital layers, and other essentials such as sunscreen. The peanut butter must have escaped from our still missing lunch pack. We paddled a bit more, then decided to walk onshore a bit. We beached our boat and tramped on land for quite a while, keeping our eyes peeled. "Do you have your bear spray?" Val had asked. I answered no. "Do you have your bear spray? I asked Val. "…no," she answered. We both felt a bit on edge as we were separated from our group, hadn't seen any more items, and didn't have our bear spray. After walking back to

our canoe and loading the three packs we had found, we began our journey back to our group. This was a tricky endeavor because we were paddling a river upstream. With the current going against us, we had to paddle very hard to move forward. Eventually, we got out and walked our boat the length back to our campsite. We were so tired, but the look on our group's faces when they saw that we had found some missing packs was worth it.

The very first day of our Arctic trip was incredible. We began on a lake, so we didn't have to worry about navigating whitewater yet. We made pancakes, looked over our map, and set out onto the water. Our route was within the Northwest Territories and Nunavut, which make up most of the Canadian Arctic. They border much of the traditional land of the Inuit people. The land is so well conserved that you can drink the water without having to add a single thing. The weather includes cold winters and chill summers. Temperatures in the summer season are about 50 degrees Fahrenheit. The land is primarily tundra and taiga. Tundra is an expanse of moss and low shrubs. Taiga can have short-rooted trees such as spruce. Here you can find musk ox, grizzly bears, elk, Arctic wolf, and moose. The most populous animal, though, is the black fly. These critters lay eggs in running water in very large numbers. Any exposed skin would be gobbled up in seconds and replaced with itchy, painful bites. We became heavily decorated soon enough. As these locations don't have many trees for the wind to sift through, the wind is very powerful and strong. Some days, the wind is so strong that canoeing feels like putting a paddle through nearly hardened cement. On those days, you have to wait out the wind before making any movement. Paddling on that first day, though, the lake was glassy, the sky was clear, and surrounding us was only tundra. It felt amazingly unreal. Little did I know that every day would be like that. We wake up, take down camp, and as we canoe, I can't shake the beauty of this place.

"Their boat was barely visible now, flying down the river."

I felt weirdly solemn the night we lost our boat and items. I had written in my journal, "I am soooo tired right now, but happy we all have our personal items and EACH OTHER! Our travel will certainly look different now, but we only have 6 days left." I felt really proud of how our group handled the situation. We immediately



took action, focusing on one task at a time so it didn't feel like such a scary situation. The morning after, we began to figure out how we would travel from now on. Somehow, we consolidated about three boats' worth of times into two boats and also fit three people per canoe, rather than two. Our two boats were so heavy that there was only about 5 inches of freeboard. This meant that we could not paddle whitewater anymore, since any waves would immediately wash into our low-sitting canoes. Imagine trying to drive on a bumpy road in a loaded clown car: something's going to topple over. We decided to canoe the calmest route possible, staying close to shore, getting out frequently to walk our canoes past anything too shallow or dicey for our new accommodations. The first day traveling with only two boats, we came across a heavy whitewater part of the river. With rock walls on either side of the river, there wasn't any place to pull aside. The calmer part of the river was on the right shore, but unfortunately, we were on the left shore. We decided to try to paddle to the left as strategically and carefully as we could. Only halfway through, our boats were scarily filling with water, and we had to quickly pull aside at a small patch of flat shore. This was the reality of your situation; we were now ill-equipped for our surroundings and had no control over what the river might give us.

Three weeks into our trip, our group had become a well-oiled machine. We had reached the Coppermine River by now, and spent every day going further and further down its path. Every day we would get up, make breakfast, take down camp, load everything onto our

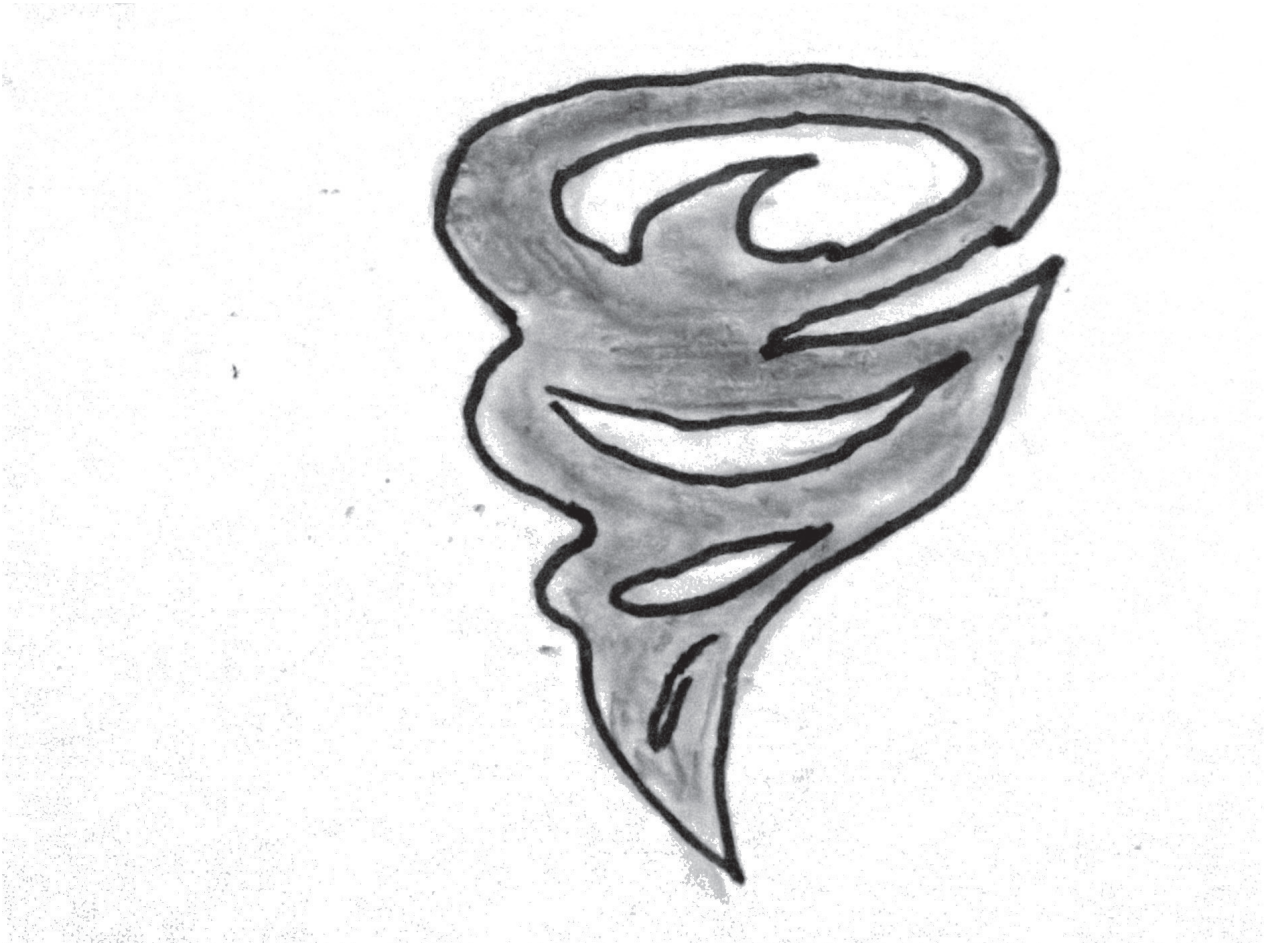
three boats, and paddle. Our canoes moved fast in the water with the current of the river, which meant we had to have a stellar reaction time to dodge obstacles. Whenever the river's current switched from fast swifts to complex whitewater, we would beach our boats on shore and scout the water ahead. Rivers are incredibly complex, so taking time to look at all of the small features of whitewater is very important. Together, we spot the safest part to enter the whitewater and the safest way to exit it. We also pay attention to obstructions such as rocks, fallen trees, and large waves. After scouting, we would paddle the whitewater with our canoes in a slightly-distanced single-file line. Sometimes, though, there wasn't anywhere to pull aside, so we just padded though the whitewater as strategically as we could. Paddling this river was incredibly exciting and fun, and we all further improved as canoeists over time. At this point in our trip, we were nearing a portion of the river called Sandstone rapids, which past trips reported little to no calm section on the river, making it primarily whitewater for miles. It usually took past groups a few days to complete, since so much scouting was necessary for safe travel. It was towards the end of this section that we lost that boat.

"This was the reality of your situation; we were now ill-equipped for our surroundings and had no control over what the river might give us."

An obstacle we had to navigate after losing our boat and many items was how to eat. Without stoves, spices, pots and pans, and other cooking materials, we had to get a little creative. As we carried all of our accumulating garbage with us, we had some fuel canisters that we had finished over time. We selected the largest one, cleaned it out, and sawed the top off it. We now had a new "pot" for cooking. Without any stoves, we decided to collect sticks to make a fire, which is really tricky when you're in a nearly treeless biome, but we managed. From there, we used a large stick to stir. Although it didn't work effortlessly, we were fed. Half-cooked macaroni still has the same amount of carbs! Our faux stove is a great example of the creative decision-making that we had to do after losing many of our resources. We had to think critically about every action that used to be easy for us. Although it was hard, we successfully made it to the end of our route: a small Inuit settlement called Kugluktuk. This challenge made me truly appreciate this group and further understand the power of the natural world around us.

What true power do we hold over the natural world? To be completely frank with you, none. We only live comfortably for two reasons. One: because we work so incredibly hard to suppress nature. Why do you think there aren't any swarming bugs in your town, but they're all over the place in unpopulated land? Our non-diverse front lawns and chemical remedies sculpt the clean and comfortable cities we want to have. Two: because the natural world is currently allowing it. Over 99% of the species that have existed on Earth have gone extinct. Nature's cycle includes very large cataclysms that we have no power over. Sun, water, and soil influence where we live. Weather influences our schedule and what we wear. It has always been the natural world behind the wheel, and when humans are gone from Earth, it will simply keep driving. "Because nature abhors a vacuum, abandoned land rarely remains unused for long as various species of flora and fauna soon move in to colonise the space left behind," notes Steve Carver, an author from the book Rewilding, which speaks about the overtaking of nature following human abandonment. My Arctic expedition is a perfect example of how we are always bending to the curve of nature. The Coppermine River flows and twists and bubbles forever and ever, continually changing from narrow to thin, fast to slow, deep to shallow, and straight to curvy. Its fluctuation and unpredictability made us constantly change our pace and methods of travel. Losing that boat and most of its contents on the river was a smack-in-the-face reminder that we were simply just passing through the natural world around us. The rocks and waves and wind made us fall, but that was its every right.

Disasters



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Sinking Society

Author's Note: The following came from the accounts of the passengers who were on the MS Estonia Ferry that sank in 1994. Only 137 people out of 989 crew and passengers survived the catastrophe. I wanted to write this after I read A Sea Story by William Langewiesche, which delves into the details of what it must have been like on the ship in its last moments. I was enthralled by the way in which passengers acted in the face of death and complete chaos.

Written by Alice Weiland

Pierre Thiger was being dragged down further and further into the abyss. The pressure consumed him as he struggled to breath. The ocean roared in his ears as he resisted and broke away from its grip, shooting above the crashing sea. From there he drifted away, riding harsh waves brought by an angry storm. He hung onto life as he clutched floating life vests in his hands. As he floated farther and farther away, the scene in front of him became clear. The ferry in which he was traveling on about an hour ago had just succumbed to the sea. Almost as if it was swallowed up by a hungry monster. All gone but the crumbs of life vests, corpses, broken cupboards, and other fragments of the ferry that sank into the ocean.

This is what I was imagining Thiger experienced as I read his fascinating account of the sinking of the MS Estonia, where water flooded the ship, causing many kinds of chaos to erupt among the passengers as they fought for survival.

On September 28th, 1994, Pierre Thiger, a 32 year old Swedish shipbroker just happened to be one of 989 of the people traveling on a 15 hour ferry trip from Tallinn, Estonia to Stockholm, Sweden. He was on his way home after working with a small cargo ship in Estonia. The MS Estonia was a ferry he had been a passenger on many times before. This particular ferry was massive, comparable to the size of a cruise ship– 510 feet long with 10 decks. It had many features similar to that of cruise ships as well. In deck 0, below the waterline, was a pool and sauna. Inside decks 1, 4, 5, and 6 were passenger cabins, along with entertainment spots that included a video arcade, a cinema, several bars and restaurants, and even a casino. Deck 7 held the crew cabins and facilities with an outdoor promenade where passengers could enjoy the windy ocean view. Deck 8 was more outdoor space where the lifeboats hung. The most notable of all these features that set this ferry apart from any other was on decks 2 and 3. This was also the deck where it all went wrong. Decks 2 and 3 contained all the cargo and a car deck that stretched along the hull from the stern to the bow. To get the vehicles on board, the bow of the ship opened up allowing them to be moved efficiently by driving them in and out. There were around 100 cars and trucks altogether on the deck during this trip. Normally there wouldn't be much concern about an openable bow on a ferry but this time around as the ferry traveled across the Baltic Sea, the MS Estonia was hit by a rare and rough storm of strong winds and waves up to 20ft. This didn't stop the crew from pushing through full speed ahead though.

"Ha! Now we have sailed against an iceberg!"

It all began around one o'clock in the morning as passengers milled about either visiting the open bars or struggling to sleep in their cabins as the ferry rocked through the large waves. A jarring sound rang through the ship. "Ha! Now we have sailed against an iceberg!" A passenger joked. This wasn't what had happened. In reality, the openable bow had opened up and fallen off. Due to the intense storm, the locks failed to keep the bow in place. It left a gaping hole for the ocean to flood. The entire ferry shook, interrupting karaoke night at the Admiral's Pub on the 5th deck. This was where Pierre Thiger was spending his night and early morning. He had his concerns about how the ship was rolling against waves and wasn't entirely sure what to make of the sounds. The noise was the first sign among the upper decks that the ship was going down, but these passengers hadn't realized it just yet.

Meanwhile to passengers in cabins on decks 1, 2 and 3 the impending doom became very clear the moment the metallic sound resonated throughout the boat. For these passengers it wasn't just a sound, it was a shift of gravity, a tilt, and worst of all: incoming seawater taking over the ship. At this point the ferry was no longer just a massive boat rolling through waves of the Baltic Sea, but an end of the world scenario for everyone



on the MS Estonia. What fascinated me about the MS Estonia is that as the setting of the ship changed from luxury ferry into an obstacle course of life or death, individuals faced their emotions, decisions, and values very differently, causing a chaos known only to those who survived. The ship heeled over throwing people across their claustrophobic cabins on deck 1. The ship began to permanently tilt to the side as more and more water continued to flow in. The entire ship began its transformation into the apocalypse. Stairs turned into intimidating climbing walls, the only path to potential safety. Cabins turned into death traps as people shifted from walking on the floor to crawling on the walls having to avoid falling into the open doors. Not long after the lower decks turned into turmoil, the tilt continued to increase to a point where the upper decks began their transformation into dangerous terrain. The Admiral's Pub was a new kind of course where passengers now had to dodge falling objects. The world was being literally turned upside down and so was any sign of order among the passengers and crew.

"The state of society on the boat had become all too clear when there wasn't enough safety to go around."

Social norms began to unravel with every individual's actions in complete peril. Fight or flight mode had struck the ship as passengers scrambled up the stair climbing walls in a hurry to reach the promenade on deck 7 and the life boats on deck 8. People running back and forth screaming, crawling, and climbing as the angle of the floor steepened. Helpless screaming echoed in the hallways. Chaos had erupted from deck 1 to the top. As the list increased, the trek to the top became more challenging. People were pinned to the walls of their cabins by gravity. Some made it out. Others weren't physically capable of climbing out of cabins or stairs. The people who needed help were left all alone. The others, taken over by survival instincts toppled over the solemn and sobbing passengers who had given up on their dimming chance of survival. But even for those who continued to move up, the stairs only became harder to climb, falling and dodging large objects became a challenge, and people became harder and harder to understand. Many passengers met their ends far from the haven that became deck 7. Each individual was faced with the decision to either save themselves or go against all odds of survival by protecting others. Only a few made it as far as the safety boats. The state of society on the boat had become all too clear when there wasn't enough safety to go around. The way in which people interacted with each other had shifted when their lives were on the line.

It was evident that as this ship began to sink that the survival process had begun to kick in. The stress and panic that took over the ship became the decider on who survived and who died. One of the most important survival factors is how one reacts to being faced with

their death. Do they let their emotions take over make irrational decisions or do they turn the adrenaline and emotions into more calculated decisions? Is it better to act quickly without thinking or wait and make a decision later? Will it be too late by then? On the MS Estonia where each and everyone was thrown into turmoil no matter how far away from the life boats and life vests were, they were affected by the intense feeling of facing death head on. The passengers that saw no escape other than death itself simply died. But for the passengers that were able to stand and move forward while the end grew closer as the angle of the ship increased more, their fate was truly left up to the waves, their mind, and statistics. For example if we compare the sinking ships of the Lusitania and the Titanic we can see the differences between the actions taken on each boat. The Lusitania had sunk in 18 minutes and had become a destructive fight or flight free-for-all where the people most likely to survive were able bodied people in their prime. On the other hand the Titanic sank in two hours, leaving passengers time to regain their moral compass. This led to more organization as the passengers more likely to survive were women, children, and higher class passengers. The society that had rebuilt itself on the Titanic was nowhere to be found on the Lusitania. The MS Estonia sank in about 50 minutes, showing both sides of order and chaos.

Even though the world upon the ship was turned upside down, as people made their way to the top of the MS Estonia, a little flash of society had begun to rebuild itself. Once the floor of the Admiral's Pub had tilted, Pierre Thiger began trailblazing his own path for survival. To make it to the door he was forced to dodge falling chairs, stools, tables, sound equipment, and people. It became impossible to get to the door simply by walking or crawling. But through the continuous deterioration of everything around him and the other passengers, people had begun to think and work together. Thiger was able to make it out of the perilous pub by human chains made by the others to help make it to safety. Among the mess, people had begun to restore some order. Passengers and crew members made decisions to prioritize the life of others rather than their own, making sacrifices and an effort to boost morale. Through the terror of a sinking ship some people maintained their sense of moral beliefs and rights, similar to what happened on the Titanic.

"The entire ship began its transformation into the apocalypse."

This was not the case for everyone on the MS Estonia however. On deck 8 a new kind of panic washed over the passengers and crew as the obstacle course to the top was over. It had turned into a selfish fight of who could get a life jacket, and if they were lucky, a life boat.

On one side we had people working together to save family members and other people up until their last moments. On the other side we had rogue people with no more morals holding them back as they robbed valuables and lives by stealing life vests.

As the ship continued to capsize, deck 8 was no longer a safe point for the survivors on the promenade. They were faced with the vast ocean as people began to drop into the water, with or without life vests to protect them. Pierre Thiger crossed the railing of the promenade and began to make his path to survival. He held onto the rail, waiting for the ship to regain equilibrium until it became clear to him the ship was going to invert. He began his trek on the outside of the ship where he carefully walked across the windows of darkened rooms. He made his way to the hull where he met a crowd of people. They went the same route as him. He watched as people attacked their chance to get on life rafts and fought as they failed to form properly. The waves crashed against the hull closer and closer now. He watched them until he was finally taken away by the storm.

Thiger survived ultimately by his own independence. He had minimal interactions with others and kept on moving. Additionally his previous experience and knowledge of ships is what kept him cool until he was simply washed off the ship with a wave, but with no life vest or life boat to hold on to. He showed his own innate ability to process life threatening situations and turn the intense stress and fear into a path of survival. This path wasn't all because of his own mental strength, as there were many who died in the sinking that showed tremendous bravery and sacrifice. The difference is that Pierre focused on himself and the actions that he could control, and walked along the hull just as the waves became the last hurdle for the remaining passengers to get through. The rest was all luck.

Pressure

Author's Note: The following is a fictionalized survival story inspired by the real OceanGate Titan submarine implosion in 2023. While the general events, people, and scientific details referenced in the story is real information, the narrative and perspective itself is imagined. It was written using general research and my own interpretation to show what the experience may have looked like.

Written by August Cheney

The morning air is cool as we step onto the Polar Prince, our support vessel. The submarine rests underwater nearby, and to my surprise, it was a lot smaller than I'd originally anticipated. I glance over at my dad and he smiles, "pretty incredible, huh?" I nod, trying to take in everything on land one last time before I emerge into the depths of the unknown.

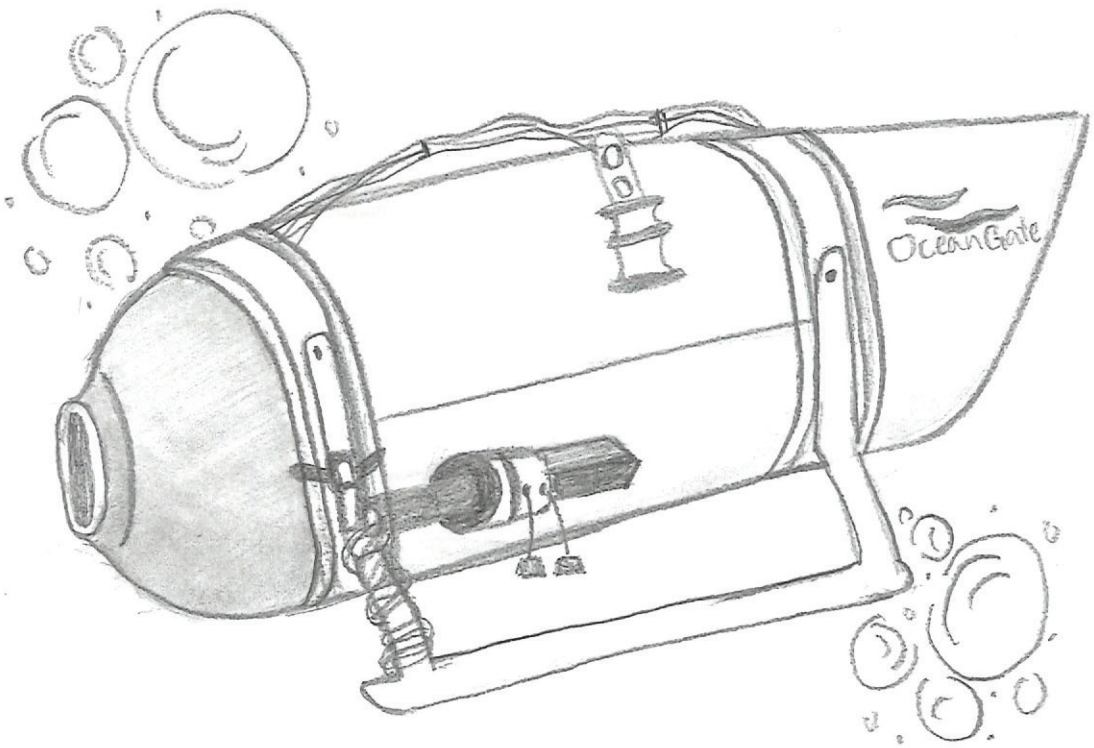
Upon entering, I immediately notice that the space inside of the submarine is very tight, maybe close to 5 feet wide, but everyone else already on board seems to be comfortable with it. As the hatch closes, it causes a loud heavy thud above our heads, startling everyone onboard. Despite my fear of the trip beforehand, after having finally entered the very thing I'd feared most for months, I could now say I felt a lot more relaxed than I thought I would've been. "That's it, we're really doing this now", I think to myself.

For roughly an hour into the descent all we can hear is both the quiet hum of the submarine's machinery and the rocking of the ocean, in a way creating a very peaceful sensation inside of the submarine. Outside of the whirring of the auxiliary machinery, which is responsible for managing the hydraulics, oxygen generators, refrigeration, and the diesel engines, there have been absolutely no other noises. Occasionally, Wendy Rush, who is Oceangate's director of communications, will check in on our sub's positioning, but outside of that there hasn't really been as much back and forth as there was in our training. Roughly an hour into the descent, finally another sound is heard, almost like a tight metallic cracking sound that seems to come from somewhere directly behind my shoulders. "That's…unnerving," I say. My father shifts slightly beside me and murmurs under his breath, "almost there," clearly said with the intention to either reassure or simply distract me from the situation. Eventually, the cracking sounds stop and we are able to peacefully continue our descent.

The Titan expedition was organized by OceanGate as a private, deep-sea dive rather than the typical underwater government research mission. Most deep-sea submarines in the past have had their expeditions and building of the submarine funded and operated by national agencies such as Navies or Oceanographic institutions, which have both strict safety certification systems and highly trained personnel on board. In contrast, OceanGate's model allowed for private individuals to join expeditions as paying participants that were called "mission specialists," meaning the people inside of the submarine were not necessarily professional submariners or career scientists, but instead people into submarines with buckets of money. On board the Titan were five occupants: OceanGate CEO and pilot Stockton Rush, British explorer Hamish Harding, French Titanic researcher Paul-Henri Nargeolet, Pakistani businessmen Shahzada Dawood, and his son Suleman Dawood. This approach was part of a growing trend sometimes described as private or commercial ocean exploration, where companies aim to expand human access to extreme environments through private funding instead of the usual public research budgets that would be issued by the US Federal Government. Because of this difference, the Titan dive represented a shift away from the traditional and heavily regulated deep ocean exploration program towards a more experimental and commercially driven form of exploration.

"As the hatch closes, it causes a loud heavy thud above our heads, startling everyone onboard."

Submarines are designed to operate underwater through carefully controlled buoyancy and a strong structural integrity in order to withstand extreme deep sea conditions. There are three main aspects of the ballast tanks, which are the chambers that allow the submarine to move up and down through the water. The main ballast tanks are used to make the submarine sink by filling up with water through vents, and are emptied through the process of next aspect of the ballast, blow-



ing, where in order to resurface, compressed air stored in bottles is forced into the tanks, driving the water out through the flood ports and causing the submarine to gradually elevate. The last and one of the more important aspects of the submarine is the variable ballast tanks, which are used to fine-tune the submarine's buoyancy to match the surrounding water's high density, allowing it to maintain a specific depth. In the case of the Titan, this allowed them to calmly observe the Titanic wreck.

As a submarine descends deeper into the ocean, the surrounding water pressure increases rapidly because the weight of the water above the submarine is being pushed down from gravity, creating a heavier column of water known as a "hydrostatic pressure" that pushes from all sides of the submarine, adding about one atmosphere of pressure for every 10 meters of depth. At depths near the Titanic, this pressure becomes insanely immense, placing thousands of pounds of force on every inch of the vessel. To withstand this, deep sea submarines are built with very reinforced hulls, but even then, the margin or error is extremely small for these builds. Any flaw in the structure, whether its design limits or repeated stress on the materials, can lead to sudden failure, like an implosion in the Titan's case. Reasons like that is why deep sea exploration remains a very dangerous task despite constant advancement in technology. "The weight of water is much greater than the weight of air, so people underestimate it. Also, because the force is applied in 360 degrees, any weak point will result in failure," said physics teacher Tom Totushek.

Another sharp crack travels directly through the hull behind my back, incredibly louder than any of the others I'd heard during the descent. The cabin of the submarine goes completely still, the five of us frozen, as if any kind of movement itself may disturb whatever had just shifted the metal box completely encasing us. We sit tightly, shoulder to shoulder, solely illuminated by the dim blue glow of our battle lantern and a large light on one of the sides. The only emotion I could distinguish from my fathers face was something I'd never seen before during my childhood, fear. I look over at the viewport which had once highlighted the vastness of the ocean. It now only shows utter blackness, no

sea floor, no wreck of the Titanic, just pure depth. The thought uninvitedly comes into my mind that there is nothing out there but pressure surrounding this submarine. It's built for this, I tell myself, forcing a very slow breath in the warm, almost metallic tasting, recycled air. "That's… normal," Captain Stockton Rush, a friend of my dads, says with a pause in his voice. No one onboard answers, then there's another sharp crack. This time the noise did not sound like the usual machinery or the ballast shifting– it sounded like the vessel itself had been adjusting under the weight of the sea.

During the dive, the Titan would remain in intermittent contact with its surface support vessel, the Polar Prince, a Canadian research and expedition ship that was tasked with both being the launch platform, and primary way of communication to the outside world for the crew onboard the submarine. Because radio waves do not travel effectively through seawater because of their high conductivity, the water will absorb and then disperse the electromagnetic energy from the radio waves, rather than allowing them to pass through. The Titan would communicate with the Polar Prince using acoustic messaging systems that transmit short digital signals through the columns of water. These signals would allow the surface crew to receive frequent updates such as depth, heading, and overall system conditions. Despite this constant back and forth communication, trying to communicate though land and water led to generally limited bandwidth and frequency when compared to normal radio contact through land. As a result, the monitorization of the submarine heavily depended on periodic pings and very brief lines of data, rather than the typical procedure for submarine expeditions, continuous voice communication.

Now, the creaking refuses to stop. It once again appears to be coming from somewhere behind my back, "it has to be the auxiliary machinery," I think to myself, though this is likely far from true. If it is actually the auxiliary machinery we should occasionally be hearing more of a mechanical whining sound from either the pumps or compressors, and I also shouldn't be having trouble breathing. The blue glow from the instruments reflects faintly across the inside of the hull, and for a moment, I'm able to focus on the viewport once again, hoping to see something, anything, outside, ideally at least a faint outline of the Titanic. I try to keep my breathing slow, just like how the instructor had explained before we entered the sub, but the air is becoming even tighter, and I begin breathing at a rate I've never experienced before. This isn't good.

My dad glances over at me and gives me a simple little nod, almost like he's telling me everything's okay without actually saying anything. I nod back, but a different voice is even louder in my head, "why is the cracking getting louder?" At this point panic finally begins to set in across the crew. Pretty much everyone is struggling to breath, and in a way it feels like the entire submarine is collapsing in on itself due to the sheer amount of pressure. We all begin to frantically pound on the walls of the submarine, hoping someone, anyone, will be able to pick up the sounds of our cries for help. At this point it is too late, the metal pops again, sharper this time, like someone had snapped a large tree branch. My fingers tighten around the edge of the seat as the groans of the pressure grow even louder, the sound stretches into a long metallic whine that seems to fill the entire cabin, and now, the only emotion being expressed across the cabin is pure terror. The screeching of the metal is becoming unbearable now, and I exclaim, "Something is definitely wrong, this is– !" and just like that, everything goes blank.

Pain in the human body is not something felt instantly. When pain is inflicted upon a person, the first response begins in specialized nerve endings known as nociceptors, which are responsible for detecting damage or pressure on the human body. These receptors can register the stimulus in fractions of a millisecond. From there electrical signals move along nerve fibers towards the spinal cord, a process that can take several milliseconds depending on the distance the signal must travel. For instance, pain to the foot or hands can tend to take longer to feel due to their distance to the spinal cord, while pain inflicted on the chest or abdomen will generally be felt sooner. Once the signal reaches the spinal cord, it continues on to the brain, where the sensation of pain is finally interpreted. Even then, the brain will still require time to process what has occurred, meaning that the full awareness of pain usually happens tens to hundreds of milliseconds after the initial infliction of pain. In situations like the the people on board the Titan, where the infliction of pain involves an extreme amount of pressure or sudden structural failure causing an implosion, the events of the situation can unfold faster than the body's ability to complete its full chain of communication. So, the people onboard the Titan, outside of their lack of air, would've likely never felt pain directly from the implosion. The body may have been able to begin the process of detecting harm, but the signal may have never fully reached the point where the brain can consciously experience it.



The Calm Before the Storm

Author's Note: This story was written from my personal experience with a storm that took place in August of 2015; it is better informed by interviews taken from those that experienced the events detailed alongside myself, as well as publicly accessible interviews from experts in relating fields, what proceeds is an account based primarily in my reflection, and is thus subject to possible embellishments, or shortcomings in account, as memory is a fickle thing.

Written by Dutcher Trobaugh

In August of 2015, the costliest storm in the history of Northern Michigan hit the wider traverse area just off of the shore of Glen Lake, with winds estimated anywhere between 100 and 120 miles an hour. I was there at ground zero.

I recall the day beginning with the Old Settlers Day Picnic, an anniversary event for the founding of a community park along Big Glen Lake, a place that is especially important to my family, as we had distant relatives that owned property and lived next door to it. The picnic isn't a true picnic– there is a local community catering for the event including corn on the cob, pulled-pork sandwiches, various fruit pies, and lemonade. There are also games for kids to win candy, a live band, and commemorative burned shingles with the year and an antique car burned into them. There is also a silent auction filled with various donated items from local shops and artists.

Arriving around a quarter to noon, my mother, sister, and I drove in separately from my grandparents, who arrived little after twelve. Getting out of line for food and walking to the picnic table, my sister and I could see clouds tinged teal rolling in over the lake. As our grandparents joined us at the table, we heard the first rumbles of thunder ripple out. Thinking little of this at the time, we continued with our lunch. I recall the corn harvest as being more scarce this year thanks to a snap freeze in late March that wiped out a sizable portion of the local crop, meaning that this corn was a nice treat for us.

Rounding out lunch, my sister and I ran over to the games of three-legged races, apple bobbing, two person skiing, and the various opportunities to play with kids our age on the playground. My mother and grandmother went to the silent auction to admire the wares of local artists, and my grandfather struck up a conversation with a neighbor. After a few games, and more than a few candy bars, my sister and I returned to our mother to examine what she had decided to place bids on at the auction. Just then a very mild sprinkle of rain began, so fine you'd almost assume that some higher being was using an invisible water mister designed for watering succulents just above your head. This sprinkle drew people back under the tents, and the first real sign of anything to come —a thunderous boom— echoed through the lakefront for what felt like a minute. This was the point where my grandparents decided to return home to tend to their dogs, who do not handle storms in the most non-reactive manner.

Maybe half an hour later, my mother, sister, and I decided, following the end of the silent auction winners being announced, that we would head back home, as the picnic had mostly wrapped up by this point, and the sky had been getting progressively more and more grey.

At home I spent the later half of the day reading Percy Jackson and the Titan's Curse, while my sister played with my grandparents dogs to help them calm down. As time went on the rain pounded the roof harder and harder, the sky darkened, and by dinner time, the windows were half as bright as they typically would be by five PM. We ate frozen pizza for dinner, my sister and I eating in the basement watching old My Little Pony episodes. That was when the wind began to pick up, and the thunder got louder.

BOOM! Suddenly from the basement storm window, we could see the sky turn white with lightning, almost as though some omnipotent cosmic being had flipped a lightswitch. Rushing upstairs to see what was going on, my sister and I found my mother and grandparents at the backdoor, looking out at what was going on outside. Inquiring as to what was going on, we were swiftly directed to go back down stairs, taking the dogs with us. Just as we got downstairs, the lights turned off only to flicker on again a few moments later. The back up generator had turned on, meaning power had gone out– we would learn the next day that this was thanks to the line having been severed by an over fifty foot tree that had been torn out by its roots and flipped over two or three times.

From what we could barely see out of the basement window, plants of all sizes were being wretched from the ground and flung all around. The momentary lack of light was enough to scare my sister and I back upstairs to better see what was going on. Once upstairs we walked towards the front door, where our family had relocated to watching this lovecraftian storm's havoc wreak. This time they were standing halfway out the front door, watching trees get pulled from the ground as though a stressed out toddler were pulling at a doll's hair. As this early stage of a twister spun around, lightning struck as close as the front yard, and my mother's car began to hover a few inches off of the ground.

At this point our mother realised that my sister and I had returned upstairs. We were told, more forcefully this time, to return back downstairs, and our grandfather accompanied us to the basement this time. To calm us, he put on an animated movie using the DVD player, as the cable had gone out well over an hour before at this point. Roughly twenty minutes into the movie, my grandmother yelled for my grandfather to come upstairs. Transfixed by the movie at this point, with our nerves settled to the point where mostly just confusion remained, my sister and I stayed seated as our grandfather left. We would soon learn that two trees had fallen at the base of my grandparents driveway, blocking in a mother and her daughter, who had gotten on the road to go home too late in the day. My grandfather helped them out of their car and up to the house, where the daughter would join us for the remainder of the movie.

I couldn't really tell you much about the day after that point. I know it was late enough that I was beyond bone tired, running on fumes and adrenaline. I know my sister and I watched another movie later that night, what movie, I truly couldn't begin to recall. I know that the fire department cleared one of the trees at some point that night so the mother and her daughter could leave, but I haven't the foggiest clue what time that was. As the night went on, slowly but surely, the storm came from a roaring thunder of chaos, to a slow dribble of rain, and finally late into the night, or maybe early in the morning, depending on what kind of person you are, the rain stopped.

The next day stepping outside, you could see carnage of the earth unlike what could truly ever begin to be described: pits of sand, no longer sand but instead blocks of glass where the lightning strikes had been immortalized, trees fallen that had just narrowly missed hitting my grandparents house and their cars, grass, leaves, branches, flowers, various garden instruments, strewn absolutely everywhere. Downed power lines and phone lines lay on the ground, still sparking like flames waiting to lick up and begin to blaze on a ground that was far too wet to accept the heat of the sparks.

It took the fire department a week to clear the trees that blocked the main roads, but by noon the day after the storm, enough had been cleared that we could begin to drive around and ensure our neighbors were safe. I went with my mother to do this while my sister and grandparents swept up their drive way. When we got home, my mother and grandmother sat down to talk, and my grandmother implored my mother to take my sister and I to our uncle's for the following two weeks, lest my sister or I harm ourselves on a powerline or a downed tree or be bored out of our minds being forced to stay inside. The number of trees that had been snapped not so cleanly in half truly could not be counted; we had tried at one point, but after the first 250 trees we saw between my grandparents place and their neighbors, we soon decided that counting these trees was a fruitless effort.

So we left. We were gone for two weeks, getting back just in time to celebrate my sister's birthday. The local area stayed in disarray for close to six months after the fact, with the national parks remaining completely closed to the public for over two months. My grandparents had down trees in their yard left and right for the following four years, where we and extended family and friends would spend weeks in the summer doing nothing other than sawing, chopping, hauling, and chipping wood until we could clear paths. The community still very much feels the effects of this storm to this day.

During the course of the storm, just shy of 30 severe weather warnings were issued. Jim Keysor is quoted as saying "just to put that in perspective, on average, we might only issue 60 or 70 warnings in an entire summer most years. So, we had about half the normal warnings that we would typically issue in a complete season, and we issued them all in one day." Despite the sheer devastation of the storm's impact, as far as anyone is aware, by a gambler's roll of a die, not one person died from the weather that day. Calling back to Keysor, it is reported that the National Weather Service's Gaylord Office, has saved the reading from the storms to train new radar strom detection devices on, "We've run people through this event again, trying to have them make assessments and issue warnings based on what happened. It's been a really good learning tool, because there were just a lot of different parts to that storm that we had to contend with."

Shelter in Place

Editor's Note: This is Dylan's personal account of the experience and effects of a large storm that hit Camp Unistar in the summer of 2025.

Written by Dylan Bickelhall

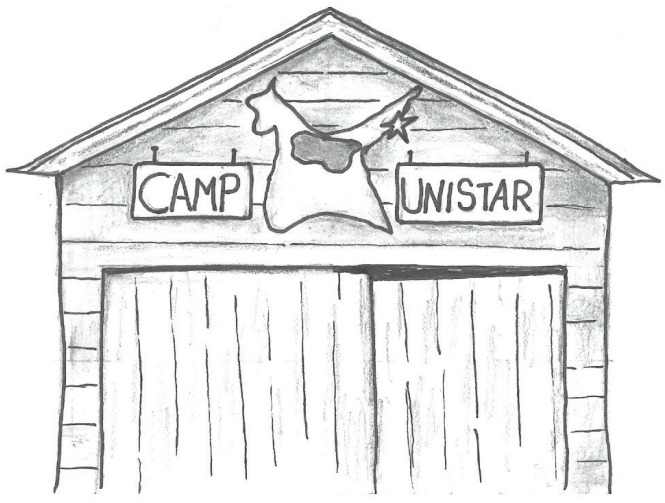
We all had evacuated to the lodge because of the weather outside. I could hear the lightning cut through the trees and the thunder break through my eardrums. After I had entered the lodge, I could feel how wet I really was; I had been outside in the pouring rain for hours. It was packed– and it wasn't just me and my friends, it was the entire camp. I felt extremely claustrophobic. Eventually I attempted to sleep, but my attempt was unsuccessful. There were around 100 people in that lodge and yet somehow I could hear all of them talking at the same time. At first we were told that we would only be stuck in the lodge for about an hour. We didn't think too much about the situation and just assumed that the storm would pass by then. About half an hour later the power was out and we were told it would be two hours. As time went on it went from two hours to three hours, to four, until we learned that we would be stuck in the lodge for the whole night. It was my last night at camp so I was pretty disappointed, but I was about twice as tired. I found a blanket and a pillow in one of the cabinets and attempted to sleep again.

No one really stopped talking. The lodge was almost as loud as a cafeteria. I decided to wait until we were allowed on the second floor of the lodge. There were actual beds on the second floor, and it wasn't full of kids. As time went on I got even more worried because I heard that we might not even be able to go on the second floor. I was concerned about my sleep, but I was mainly concerned about the weather. What if I fell asleep and a window shattered in front of me? I thought I had zero chance of sleeping that night, but eventually a counselor informed us that we could sleep on the second floor, so I headed up there and eventually fell asleep. But everyone else on the first floor had an even worse sleeping experience. At one point in the night I heard a kid yell at everyone to shut up, and I was on the second floor. I didn't get much sleep, probably around two hours, but I got through the night.

Camp Unistar is located in Cass Lake, Minnesota, an area about three hours north of the Twin Cities right by Bemedji, Minnesota. The camp is on an island in the middle of the lake that lots of other people live on. Everyone else on the island had a place to evacuate when the storm came around so we didn't have any visitors. According to the American Camp Association, every overnight camp needs an "evacuation center," and some overnight camps also serve as evacuation centers for whoever is nearby.

We had been informed of the tornado warning the night before, but we never expected it to be so catastrophic. According to the Minnesota Department of Natural Resources, the winds had been the strongest in the area since 2012. It didn't just go through Minnesota though, it had actually started in North Dakota and had moved west. The storm itself was hard to predict, but there were definitely clues in the weather that led up to the storm. On the first day of camp the weather was on the colder side, but the days before the storm came were somewhat humid.

It was around 10:30 PM when we were warned to go to the lodge, and the storm officially hit around 11:30 PM. We didn't get everyone into the lodge until around 10:45 so it was very suspenseful. The next morning they called everyone down to eat around eight in the morning. I felt very tired, but also a little energetic from all of the adrenaline I had from the night before. Every year for breakfast we have cinnamon rolls on the last day, but since the power had gone out we just had oatmeal and some fruit. I had no service on my phone and



I needed to call my family because I had some friends who needed a place to stay for awhile after camp. Later, I asked my friend Iris to use her phone to call my mom since she was the only one who had data.

My mom said yes. I was really excited to have my friends over. After we ate breakfast we were finally able to go into our cabins so we could get our stuff. I remember walking over and seeing a lot of fallen trees and debris. It felt unreal. I walked into my cabin and saw a lot of broken glass. I had made a lot of good memories in that cabin that week so it was really hard to see it in that state. Eventually I made it to my room and got all of my stuff. A few articles of my clothing were missing from my bag, but that was just something that normally happens at camp. After I had brought all of my stuff to the dock, we waited for the boat to arrive. We had a lot of free time so we decided to first take a bunch of pictures of the camp. I remember we took a group photo in the volleyball pit. Ironically on the first day of camp I helped rebuild the net, but when we took the picture it was destroyed again. When the boat finally arrived I went on with all of my stuff. I was so grateful that we were able to get all of our stuff back after everything that had happened.

What had happened at camp was pretty unpredictable, but I had made some great memories that week and it was definitely my favorite year. I've been going to overnight camps since I was about five, but none of the camps that I went to were like Unistar. I felt more free and energized because of how it was structured. The only times that were scheduled were the three meals of the day, a couple of hours of worktime in the morning, and a short cabin meeting at night.

"There were around 100 people in that lodge and yet somehow I could hear all of them talking at the same time."

There were other structured activities throughout the week, but they were all optional, which gave us even more freedom. I remember I had a friend who told me that "camp was my vacation." I loved this outlook on camp, and it changed my perspective for the better. Another part of camp that I admired was the size. There were around 70-100 campers total, while most camps have around 200, so we all felt really close to each other. After camp ended my friend Adam told me that "camp is one of the best times to see your friends," because we were always together. Although plenty of kids have been coming to camp since they were little, you can still have an amazing time if it is your first year. I made a friend named Nina that year, and it was her first time at camp. I remember she told me that "I haven't had this much fun in a while," even though she didn't know anyone before she came.

"What if I fell asleep and a window shattered in front of me?"

Lots of articles were released in the news after the storm, and the camp website had announced that they needed to cancel all of their family weeks until the camp was put back together. None of the buildings at the camp faced permanent damage thanks to their design. According to the Hanover insurance groups, buildings have a structure checklist to avoid storm damage. Even though the winds had reached disastrous speeds, the lodge was very wind resistant. Everyone was grateful that they had survived, but our biggest worry was the camp. I wasn't worried as much as everyone else was because I knew that the camp had a very efficient recovery process. All of the staff and counselors were all doing something to put the camp back together. Some were clearing the trees, some were refurnishing the cabins, and others were working on reaching out to the families who were planning on going to camp after the storm. Pretty soon after that the Camp Unistar website and Instagram posted that the camp was back in action and that everything was put back together.



DeAnne vs Donna

Author's Note: The following is a true story about my grandma and her best friend's experience with a hurricane in Florida. I wrote this story using a combination of newspaper articles, stories my grandma has written, as well as things she's told me, stories from a past resident, and additional research about how hurricanes form.

Written by Rayne Van Guilder

The wind was whipping outside causing trees to go down all over and roofs to be torn off of buildings. The streets were flooding and the water and electricity had been shut off. DeAnne and her best friend Nancy were laying on the floor of a motel room between the beds, absolutely terrified. They had heard many warnings on the radio about the horrible weather that was coming, but they never expected it to be this bad. They had come to Florida to "find rich husbands," but instead, they found a hurricane.

DeAnne Borndale and Nancy Richter, two twenty-one year old girls looking for adventure, had left Minnesota on September 2nd, 1960, for a two week long road trip where their destination was Miami Florida. They drove DeAnne's 1959 Chevrolet Impala convertible, riding with the top down, blasting music. They spent a week on the road before they made it to Florida on September 9th. In Florida they visited the Tropical Gardens, Silver Springs, and the Cypress Gardens. They were on their way to Miami when they heard talk about a storm coming in and warnings to get off the highway, so they stopped in Fort Myers at 2 PM. They were lucky to find a motel because many local residents from Fort Myers Beach had evacuated to Fort Myers. To prepare for the storm, DeAnne and Nancy bought crackers, cookies, apples, and pop. They also bought other necessities for the storm like flashlights and candles. The next morning they woke up early, had a nice breakfast, then went back to the motel to wait for the storm. Around noon it started to get really windy and they watched the storm from their motel room. At about 3:00 PM the eye of the storm was passing through and it was calm for about an hour and 15 minutes. The sun was bright and the weather turned hot and humid, but this didn't last. Soon enough the hurricane would be going full force.

DeAnne and Nancy were laying on the floor listening to the storm roaring outside. They were absolutely terrified. "When they said the second part of the storm was gonna be twice as bad we were worried. It was horrible. We laid between the beds in the motel. It made so much noise we could hear it outside," said DeAnne. They could hear the rain pouring and the wind whipping at 115 miles per hour. They laid there scared until the storm started to let up and they eventually fell asleep. The worst of the hurricane was finally over around 8:00 PM and DeAnne and Nancy slept through the night. The next morning everyone was warned not to go out in the streets because there were wires that had gone down but DeAnne and Nancy went out anyway.

Hurricane Donna hit Puerto Rico, the Bahamas, Florida, the New England coast, Cuba, and many more places, causing large amounts of damage. The estimation of cost for damages caused by Hurricane Donna range vastly. Some sources estimate that Donna caused between 40 million and 900 million dollars in total damages. Damages from the storm ranged from water damage, to torn off roofs, to complete destruction of buildings. Donna started as a Cape Verde storm that formed in the eastern Atlantic on August 30th, and then gained hurricane status on August 31st. Hurricane Donna caused maximum sustained winds of 92 miles per hour with gusts of 121 mph in Fort Myers, and tides of four to seven feet above normal in Fort Myers Beach. The U.S Department of Agriculture estimated that 25% to 50% of grapefruit crops were lost and 5% to 10% of the orange and tangerine crops were lost. Other places were affected just as badly. In the Bahamas many buildings were damaged and blown away, and there were many deaths in Cuba due to evacuation plans not being carried out. Overall the death toll was around 350 to 400.

After the storm DeAnne and Nancy walked to a church and then went to find food because they were hungry but didn't have anything left to eat. They found a drugstore and got ham sandwiches and cokes. Many cars in the parking lot where DeAnne's car was parked had trees that had fallen on them, but luckily her car had not been hit, "There was a car parked away from me and there was a tree that landed on it. I was so lucky because my car had trees all around it but nothing landed on it," said DeAnne. They saw that the junior high down the street where people were sheltered had the roof torn

off, and cars had been picked up and thrown from the storm causing lots of damage. There were trees lying all over the streets and the water was above their ankles. DeAnne and Nancy stayed in the motel waiting for the streets to be cleared so they could drive. Their water was turned back on but they couldn't drink it, and they had to sit in the motel with candles lit. Two days after the storm, when the streets were finally cleared, they headed home to Minnesota instead of going to Miami because they had had enough of Florida.

For hurricanes to form there needs to be warm water, low pressure, and warm moist air. These conditions will allow a hurricane to continue to grow. The hurricane forms when the warm moist air over the ocean rises away from the surface, which causes lower air pressure below. Air from surrounding areas is pushed into the low pressure area and then this air also becomes warm and moist and rises too. The warm air continues to rise and surrounding air continues to take its place and clouds form and the whole system spins and grows. As the storm spins faster an eye forms in the center where it's very calm and clear. Hurricane Donna turned into a category 4 storm, which is classified as winds of 130 to 156 mph and a storm surge of 13 to 18 feet above sea level.

So if hurricanes are so destructive and dangerous, why do people stay in Florida and other areas that are frequently affected? There are multiple factors like preparation, federal disaster insurance, and the general attachment to the location that play into this. In Florida, there are many short and long term preparations. Long term preparation starts with aiming to live in a home constructed of concrete that also has a room with no windows, as well as doing renovations for the hurricanes, "I added solar electric panels and batteries to my house, separate from grid power," said former Florida resident Lea Hall. At the beginning of every hurricane season, June 1st, the residents stock up on food and water, and then when warning comes several days before a hurricane people buy up plywood sheets, flashlights, generators, and non-perishable food that doesn't require cooking. When the warning comes, people who don't have adequate shelter are able to go to public shelters with basic accommodations. Some people choose to evacuate instead of riding out the storm, "I75 northbound became a parking lot, and the gas stations along the way sometimes ran out of fuel," said Lea. The ability to have time to prepare before the hurricanes is a big factor of why people stay in the high risk areas and don't relocate. After hurricanes there are often power failures, downed trees, damage to buildings, and flooding that needs to be cleaned up. "During the worst hurricanes so many roofs are torn off that whole towns and cities become speckled with blue tarps in place of roofs," said Lea. It's common for people to not have power for a week or two after the storm and it can take months for the roofs to be replaced because of the high demand for the service. Despite all of this destruction, people continue to rebuild because federal disaster insurance allows people to do so multiple times on the same beach, as the people who live inland help to fund it. Another thing that affects rebuilding is the shift in distribution of wealth and the widening gap. It has become easy for the very wealthy to own multiple homes regardless of the threats of hurricanes because they have the ability to pay insurance and rebuild. Another reason people stay in these areas is because they have an attachment to the place. For many people in Florida dealing with hurricanes is just a way of life, and it's become normal for them. Some people in Sarasota, Florida believe that they could not be affected by the hurricane because of a legend of a blessing promising safety from storms. "I knew a woman who believed so strongly that she could not be affected by hurricanes that she made no preparations at all and went outdoors to enjoy the wind and sky while others were digging in," said Lea. Whether it's wealth, attachment, personal beliefs, or other things, people continue to stay in areas that are frequently affected by hurricanes. For DeAnne and Nancy though, one experience with a hurricane was more than enough.



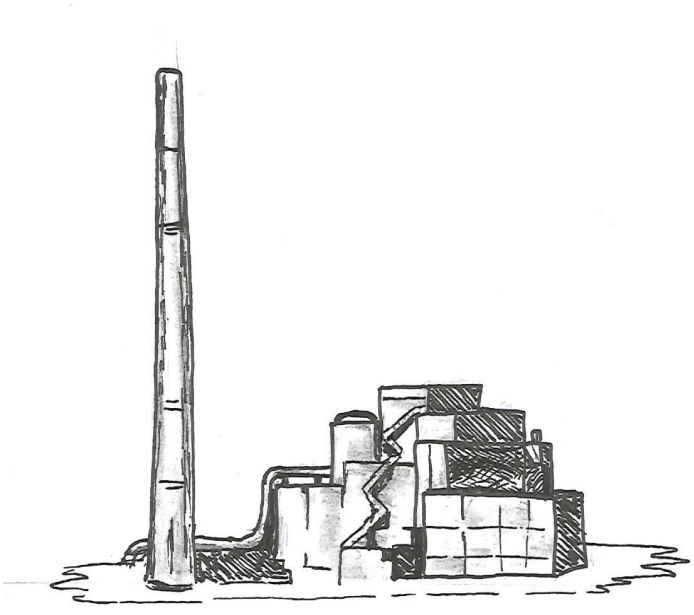
Column W-14A

Author's Note: This is the true story of Harold McCluskey and the accident he was a part of at the Hanford Plutonium Finishing Plant. The majority of the information was compiled from the government report authored October of 1976. It's been hard to balance my, at times, excessive enthusiasm for the science behind the accident and the knowledge that some people don't read these stories for a science lesson. That being said, I hope you find this interesting.

Written by Joseph T. Schwartz

In 1976, 64 year old Harold McCluskey, a chemical operations technician, had been working the night shift. The plant he worked at, Hanford Z Plant, was about 40 miles out from Richland, WA. It was his responsibility to oversee the washing of an exchange resin with nitric acid, a process he and his colleagues had wanted done for months now. The operator from the afternoon shift had finished the first washing at around 2:00 AM, and had left on his lunch break, leaving Harold and a coworker who'd stopped to socialize. They were sitting at a desk by the door into the lab, surrounded on all sides by fume hoods and glove boxes. It was around 2:50 AM when Harold's coworker reported hearing a whistling noise, like steam escaping a pipe. His coworker stood up and approached glove box W-2, where he usually would have seen a series of steel pipes and tubes used to direct different solutions. Instead, he saw a dense fog of brown fumes in the glove box. Concerned, he called over to Harold, who told him to go contact the specialist. Once Harold climbed the ladder and stuck his hands in the glovebox, he felt that the gloves were abnormally warm. He could just barely make out that the fumes were coming from column W-14A, a steel tube filled with resin being washed with nitric acid. What Harold was unable to see was that the resin, having sat for five months during the worker's strike, had been degraded by the radioactive americium-241 in the column, and had begun to react with the nitric acid, slowly building pressure and heat within the steel column. As he stood there, hands in the glove box, Harold began to hear a second whistle. That whistling was the sound of gas escaping through the failing welds on the bottom of the column just before it exploded.

The Hanford Plutonium Finishing Plant, or Z Plant, was constructed in 1964 to recover plutonium and americium isotopes from spent nuclear fuel. Plutonium is much more prevalent than americium, so the process begins with extracting the plutonium. Then, the waste byproduct of the plutonium reclamation process, a nitric acid solution rich in americium, is sent to the laboratory where McCluskey worked to be washed (or eluted) and purified further. This process of purifying the americium includes something called a cation exchange resin, which captures the americium and allows other impurities to be washed out with water, before more nitric acid is used to elute the resin and produce a concentrated americium compound. Two steel columns were used for this americium recovery process, labeled W-14 and W-14A. Both columns were held inside a glove box, where the operator could control the input and output valves manually. The typical process was for one column to be loaded with americium while the other was eluted, allowing for americium to continually be produced for laboratories across the country. In March of 1976, the W-14 column was being eluted while the W-14A column was being loaded with americium. Then, due to a "waste disposal problem" that the Department of Energy reports as being unrelated to the americium reclamation, the W-14A column was shut down, leaving it with 131 grams of americium loaded into the resin. The elution of the column was



delayed further by a workers strike in June of the same year until operations resumed in August. The elution process began with the W-14 column, but after relayed concerns by operations personnel, the process to elute W-14A began on August 24th. It was then that the operator for the elution noticed a murky orange color of the outflow, which proved definitively that the resin had been degraded. It's important to note that none of the people working with the resin had reason to believe there would be any safety concerns with eluting W-14A, only that the resin would need to be replaced for proper purifying of the americum. However, once they came into contact with the concentrated nitric acid used to elute the resin, the degraded resin byproducts would react with each other. The valve to vent pressure from the column, despite regulations being that it should be open, was closed. This meant the building heat and pressure from the exothermic reaction inside the column had nowhere to vent until something, in this case the welds on the column, failed.

"His white coveralls were stained with the blood that dripped from a large cut on his forehead, and his eyes had swollen from contact with the acid."

Harold took a step down from the glove box, yelling out that it was "going to blow!" But it was too late. One moment, there was the glove box and the fumes it contained. The next, a blue-white flame like nothing he'd ever seen. The explosion sent nitric acid, americium, and shards of glass everywhere. The force of the explosion was enough to rip Harold's respirator from his face and throw him to the ground. The fumes from the nitric acid obscured his vision completely, and with the acid in his eyes he had no way of knowing if he could still see. His coworker, who had been on the phone with the specialist, rushed into the brown fume cloud and pulled McCluskey out and into the hallway. The specialist, who had been on the fourth floor, rushed down and called for all systems to be shut down. The radiation monitor also arrived on site and handed out military gas masks to the specialist and Harold's coworker. Together, the three of them rushed McCluskey into the hallway and began to wipe him down with rags, as they believed he would collapse if made to stand in the emergency shower. His white coveralls were stained with the blood that dripped from a large cut on his forehead, and his eyes had swollen from contact with the acid. Even in the short time it would have taken to pull Harold out into the hall, his skin would have already begun to burn and discolor a sickly yellow from the acid. Not long after, several nurses arrived on scene and set Harold onto a litter, where he was rolled out of the building and loaded into an ambulance. Having heard the specialist and radiation monitor talking about what had exploded, Harold told them, "it was W-14A."

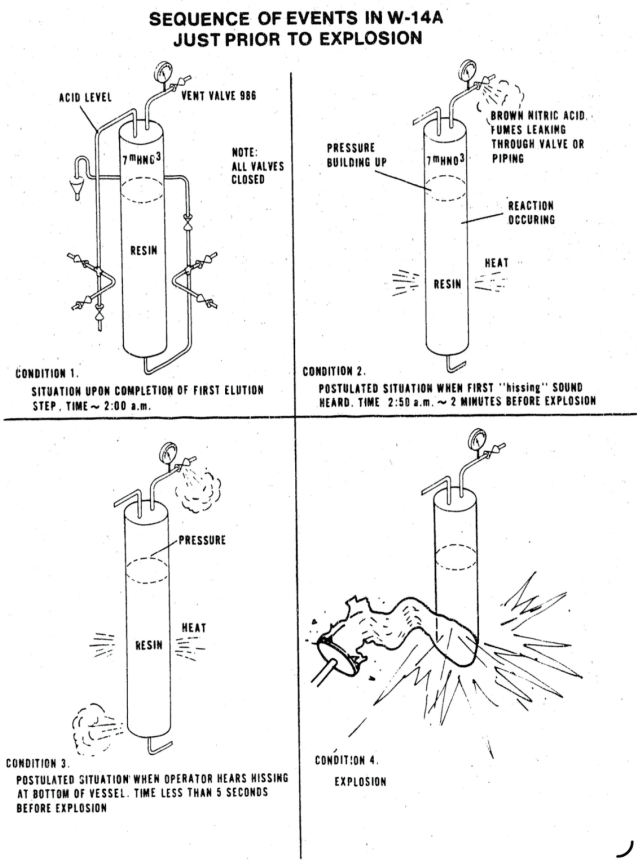
The amount of radiation Harold McCluskey received is astonishing, and he still holds the world record for the highest contamination with radioactive material survived. Today, radiation is mostly measured in the SI units grays, sieverts, and becquerels. The radiation Harold McCluskey received was reported in becquerels, specifically 37 megabecquerels or 37 million becquerels. Becquerels are the easiest to measure, as it is the number of decays per second detected in an area, measured by a machine like a Geiger counter. However, the number of decays doesn't tell you how much damage the particles are actually doing to a person. That's why it's difficult to understand what makes McCluskey's dosage so impactful. While the amount of radiation McCluskey was exposed to is a very big number, just that number alone doesn't do it justice. Americium-241 mostly emits alpha particles as radiation, which are composed of two protons and two neutrons. These particles have a lot of energy, but are easily stopped by thin barriers. Even a sheet of paper or your skin is enough to stop alpha particles from penetrating to important parts of the body. With McCluskey, though, the americium was carried through nitric acid which burnt into his skin, inhaled as fumes, and on bits of glass that cut him. An alpha emitter inside the body can be immensely disastrous, as all the energy from the particles can go directly into whatever organs it is deposited in, like the lungs, kidneys, or thyroid. That's what made it so imperative to get the americum out of McCluskey's body as fast as possible.

No one can be entirely sure how Harold McCluskey felt on the ambulance ride to the hospital, but he likely wasn't hopeful. He had seen a blue-white flame in the explosion, and his brain, clouded by pain, likely jumped to Cherenkov radiation, light that can be formed by nuclear reactions. To be that close to radioactive material and see Cherenkov radiation must be a harrowing experience almost no one can relate to. It is entirely possible, even likely, that Harold had already

consigned himself to death. In the moments he was lucid, able to think through the pain of the acid burns across his face, he may have been planning what he ought to say to his wife, Ella, or their three children. He probably wasn't sure if he'd even get to see them before he died. That feeling, not knowing whether he would live or die, would follow him for the next five months. While he didn't die in that ambulance, every day had the possibility of turning for the worst. McCluskey was completely isolated, only checked in on by nurses wearing coveralls and respirators. He had to be scrubbed, washed, given injections, then scanned daily to see how much americium remained inside him. The acid which had entered his eyes left his vision blurry. Unable to see, his skin flaky and sensitive, only able to hear his family as they spoke to him from the doorway of the facility, McCluskey must have felt horrible. But he never showed it. One nurse in particular described a scene of him sitting by his bedside, smoking his pipe, "he was stoic."

McCluskey actually had a much better chance of survival than he'd thought. The "blue flame" he reported seeing had not been Cherenkov radiation, as the gamma detectors hadn't been set off by a nuclear reaction. It's likely that the blue flame he saw was a result of being hit in the head, not anything that actually occurred. That meant, however, that the only source of radiation was the americium inside him. McCluskey had been transported in the dead of night the 40 miles to the Hanford Emergency Decontamination Facility. There, he received injections of DPTA, a chelating agent. Chelation is the process of binding metal ions with a larger compound called a ligand. This allows the body to excrete the metals in urine or feces, when otherwise the americium would have gotten stuck in his major organs. The quick and thorough application of DPTA treatment ultimately prevented 99% of the americium from getting deposited in McCluskey's organs. Despite the dangerous situation he found himself in, McCluskey survived another 11 years, before passing at 75 years old from complications with his heart he'd already been dealing with before the accident.

None of the workers at the Hanford plant had any reason to suspect the degraded resin would react in such a way as to cause the explosion, but they should have. In 1967, an anion resin column exploded at the Kerr-McGee corporation, which led to concerns about the safety of the cation resin used to extract the americium from the nitric acid. A single test of the resin was completed, even though more thorough experimentation was to be done. To quote the report from the Department of Energy, "...the laboratory was supposedly requested to evaluate Dowex 50W resin and determine precisely the hazard potential. No documentation can be found on actions or results from this requested work. Personnel who may have been involved do not presently recall any action." These accidents happen when people neglect to put in the time and effort to pay attention to the mistakes made before. Nuclear physics has brought about amazing advancements in technology, namely fission power plants, but also fuel for the Curiosity rover on Mars, and PET scans to detect diseases and tumors in the body, to name a few. Even the same americium being collected at Hanford Z Plant was, and still is, used in smoke detectors. These advancements should rightfully be praised for all the good they've done for the world, but not without acknowledgement of the accidents and deaths that paved our understanding.



Home is Where the Heart Is

Editor's Note: This is Simon's personal experience with his family losing their house in a fire. He combines his experience and his research into the effects, mental and material, of house fires to write this essay.

Written by Simon Casper

It was the summer of 2020. COVID-19 had become a real problem in the world, closing down schools and businesses. On top of that the George Floyd riots were happening minutes from my door step. My parents wanted me and my brothers to go to our grandparents house for the weekend to let things cool off. My dad stayed home to finish up some work. Even though he worked from home, I think he just wanted some quiet time away from me and my wild brothers.

It felt like a totally normal day. The same car, the same hills we passed by to get to my grandparents. A seemingly insignificant summer day. We arrived at my grandparents house, the smell of cigarettes filling the air. Thanks to my grandpa, I'm so used to the smell it almost comforts me. As we walked through the driveway, I saw my grandma through the dining room window reading the newspaper. I opened the front door and began to talk to my grandma about school and football.

I sat down with my grandpa, who was glued to the TV. We yelled at the stupid

investigator on screen who didn't realize the killer was clearly his friend. Afterwards me and my

brothers made our way to the basement where we usually watched movies on the VHS player. We sat on the couch for around an hour or so, and then I became very hungry.

Luckily I knew exactly where to look, As I put my hand in the cookie jar I heard the landline ring with the most powerful tone. My grandma reached it first. "Hello? Oh hey Josh," It was my dad, I was sure that he was just checking up on us. My grandma's face turned red. Her eyebrow stood up, and she screamed for my Mom, "MARY!" My mom walked over, not realizing the urgency of the situation. The last words I remember my mom saying were, "Yeah okay. Wait, Did you call the police? Okay, I'll be there." And just like that, she left. I was terrified, breathing heavily, my heart beating like a gorilla beating its chest. Sweat flowed down my forehead, as my brother and I tried to calm each other down.

"A traumatic event such as a house fire can make one lose their sense of self."

We began firing questions at our grandma: What happened? Where'd mom go? Why'd she leave? What's going on? My grandma was so worried she couldn't answer our pleading questions.

Only 1 in 4 Americans tests their smoke detector monthly per the U.S. Fire Administration's recommendation. 16% of Americans have never tested their smoke detector, and 20% admit to disconnecting it completely. Nearly 1 in 10 Americans don't have a smoke detector in their home.

"I was on the phone with a client in a bank waiting for the bank to take our court orders, when all of a sudden the smoke detector in the hallway went off. I thought it was a false alarm, so I was planning to go and hit the silence button to get it to shut down. I opened the door and the hallway was filled with smoke. That's when I realized that it was not a false alarm," recalled my dad.



At the time of the fire my father was thinking about how he needed to get our stuff and the pets out of the house, but in his words, "because there was still just smoke and I didn't realize how much fire there was yet," he tried to make his escape. "When I went down the stairs, it went from like gray smoke upstairs to midnight black in the living room. The electricity had gone out. There were no lights, and I could hear the crackling of the fire in the kitchen. I still thought I could get out the back door, and as I turned the corner to get to the back door and started to move towards it, I could feel the heat going up my back."

"There were no lights, and I could hear the crackling of the fire in the kitchen."

House fires affect residents in a multitude of ways, sending home owners into immediate crisis. In 2024, local fire departments responded to an estimated 1.38 million fires in the United States. These fires caused an estimated 3,920 civilian fire deaths and 11,780 reported civilian fire injuries. The property damage caused by these fires was estimated at $19 billion. The effects of a house fire don't stop at financial or physical though. A traumatic event such as a house fire can make one lose their sense of self. We see homes as a place to keep us safe from the elements, where we rest and dwell. But our homes are also an extension of ourselves. Our homes help shape our identity. Up to 40% of individuals exposed to a natural disaster will develop stress related disorders such as PTSD, major depression, substance use disorders, and others.

After an hour or so my parents arrived with my cat in a crate, and my dog on his leash. My dad had packed the car with most of our stuff from home. My brothers and I, buzzing with jitters, sat down on the couch and my parents told us that our house had burned down. The second of silence cleared my brain into a blank white sheet with nothing but my thoughts and the questions of how? When? What are we gonna do? Where are we gonna live? These were all questions that I couldn't answer at the moment.

My parents knew we had "a billion questions" but they had a limited amount of answers for us. They first told us that we're going to stay at my grandparents' house for at least a week. My brother Ben, rightfully distressed, asked how it had happened and my dad told us "It was the coffee machine. I left it on when I was in my room doing work." We lived with my grandparents for about five days. My parents decided to live in a hotel near our grandparents house but we stayed there until we discovered a leak in the ceiling. Once we found the leak we moved across the road to a different hotel, where we stayed until the end of the summer. In November we moved to a rental on the edge of St. Paul and Minneapolis. We lived there until April, then we moved back into our home. During that time the five of us went through both my parents having COVID, meaning that I at 11 years old had to cook every meal, and help my brothers with homework while attending my own virtual school. During this time my dad also had to go to the hospital because COVID hit him harder than anyone else in my family. There weren't enough rooms in the rental for me so I had to sleep in the attic on an old worn couch.

Our contractors might have been the worst crew I've ever seen. They were uncooperative and chose not to follow the schedule for who knows why. Their decision to do so meant I had to sleep on the couch in the rental attic for another six months. After many sleepless nights, the house passed inspection. We moved back into the house on my birthday, April 16th, 2022. It had to have been the best birthday present I have ever received.

The effects of a house fire are significant, not only because of the trauma they cause physically, but also the emotional damage. Home is where the heart is. 496,000 people this year are still searching for their heart.

History



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Revolución

Author's Note: This story details the survival of Cuban revolutionary Celia Sanchez Manduley through her time both organizing and fighting in the Cuban revolution. There is a limited amount of sources on this topic, no personal account, and the sources that do exist often contradict each other.

Written by David Griffith

December 2nd, 1956, Celia Sanchez, a 33-year-old revolutionary on the island nation of Cuba, waits anxiously as 82 exiled revolutionaries begin landing on the south of the island. The operation she has aided in planning for months is playing out in real time. Like many young revolutionary movements, the movement co-founded by Sanchez was in over its head. The operation was already off to a bad start. The weather had gotten in their way, and the operation planned for November 30th was postponed to December 2nd. The boat used in the landing was made with a maximum occupancy of 12, yet it now held over 80 rebels.

Despite somehow making it to the swampy coastlines of Cuba, many of the rebels were gunned down within days by ambushing government patrols, with the rest being captured, among them Che Guevara, Fidel Castro, and his younger brother Raúl. This failure didn't lie solely in Celia's hands, but the movement that she played a pivotal role in creating would temporarily cease operations as they began to regain their bearings.

Despite the failure of the operation, Batista's government started to take the threat of the rebels seriously, and they were gaining support among peasants and the working class in Cuba. A bounty equivalent to 170,000 dollars was put on the head of Celia Sanchez Manduley.

When one thinks of Cuba, they often think of the beaches and sprawling urban center of Havana. However, the majority of the island is covered by rural terrain, large mountain ranges, and vast stretches of farmland. The makeup of these areas now looks vastly different from the situation in pre-revolutionary Cuba. The farms once worked by slaves are now free from the chattel slavery and corporate ownership they were once governed by, and the hospitals and schools once out of reach of farmers and peasants are now world-class centers of medicine and education. Whilst economic mismanagement and the cruel impacts of the US's sanctions and blockades of Cuba still ravage the island nation, the mythology of the revolution that brought Cuba sovereignty and the ability to chart its own path forward persists, and the resilience and survival of the Cuban people can be seen through the ordinary Cubans who brought extraordinary change to the lives of their country's people.

Cuba, as a nation, had long been dominated by colonial powers, who profited from its agricultural land that was good for making one crop in particular: sugar. Originally colonized by the Spanish after the arrival of Columbus in the New World in 1492, the island quickly became experienced with the horrors the Spanish wrought. Any local Cuban resistance was shut down with the utmost brutality, and like many other islands in the Caribbean, the native population was all but killed off. The island quickly became part of the ever-growing slave trade and would become a jumping-off point for the Spanish to conquer more valuable territory in the New World. Cuba would remain under Spanish control with American corporations slowly buying up sugar plantations in the countryside until the Spanish-American War, when the once great empire of Spain was diminished due to both local resistance and support from the emerging regional power of the United States. However, this departure from Spanish rule would only spell new problems for the island nation. The United States was starting to dip its toes into imperialist conquest, and setting up friendly governments in the newly conquered nation of Cuba was one of its first actions. Cuba turned from a system dominated by Spanish imperial interests to a system dominated by United States corporate interests at the detriment of the Cuban people. Many lived in abject poverty and were ruled over by Americans and the elite class of Cubans privileged enough to work with them. This caused a cycle of governments arising and then quickly being overthrown

"Cuba turned from a system dominated by Spanish imperial interests to a system dominated by United States corporate interests at the detriment of the Cuban people."

throughout the first half of the 20th century. In 1952, the dictator Fulgencio Batista came into power through a coup that overthrew the democratically elected Carlos Piro Socarras. Batista quickly began cracking down on dissent by implementing a system of imprisonment, torture, and murder of peaceful demonstrators, guerrilla fighters, and those caught up in the crossfire.

Celia Sánchez Manduley, like many of her compatriots, came from a relatively affluent background, but not one directly associated with American capital. She was born in eastern Cuba in the small town of Media Luna in the Oriente province. Her father, a doctor, had dissenting political views and exposed her early on to opposition against the government. Although the exact reasons for her decision to join the revolution remain unclear, the impact of Batista's 1952 coup pushed her toward active resistance. Celia quickly became essential to the rebels' survival. Before even entering the mountains, she organized supply networks, arranged safe houses, and spread propaganda and messaging to expand the reach of the revolutionary ideals.

After the less-than-ideal 1956 landing of the yacht Granma, Celia Sanchez found herself deep within the unforgiving and rough terrain of the Sierra Maestra, where the survival of herself and the revolutionary movement was at stake. The mountains were thick with tangled vegetation, sharp cliffs, and narrow, muddy trails that would disappear under the heavy rainfalls. Celia was constantly on the move, often under the cover of darkness, guiding weapons, medical aid, other supplies, and messages through territory patrolled by Batista's forces. Hunger was a constant presence, as it was difficult to transport materials to and from the mountains. Celia helped organize secret routes throughout the jungle, relying on local farmers and peasants who risked their own lives for the revolutionary cause. She also fought and carried out sabotage missions against Batista's forces, carrying weapons across the rough terrain of the Cuban countryside under the constant threat of being killed or captured. These acts did not go unnoticed by her fellow compatriots. Some admired her courage and strength for fighting to get roles normally delegated to male fighters, while others saw her fight as one that went too far away from gender norms and denied her combat roles.



On January 1st, 1959, the Cuban rebels reached their long-sought goals and took Havana, deposed Batista, and began the process of setting up a new government. This move was supported by the large rural populations of Cuba, as well as many in the urban centers. Quickly following the success of the revolution, the United States government would impose economic blockades against the new revolutionary government and begin both covert and overt military actions against the nation. Celia mostly took a backseat to the foreign affairs of Cuba, but would be key in the Cuban people's survival at home.

The survival of the Cuban government after the initial American attacks was uncertain at best. Constant attacks by the Central Intelligence Agency and Cuban exiles threatened the security of the state, and economic blockades by the United States limited the Cuban economy, which relied on sugar exports. As the Secretary to the President, Celia led many projects to preserve and protect the hard-fought revolution. She formed the Oficina de Asuntos Históricos, which cataloged the history of the revolution, as well as working on many successful projects to expand education and access to medical facilities to rural parts of Cuba. Celia, however, did not see herself in the same way the public saw her. In an interview shortly before her death, she said, "My uninteresting life has consisted of silly things not worthy of writing down." This, however, was not how the Cuban people saw her. After she died in 1980, she was seen as an irreplaceable part of the Cuban revolution and its survival. Now in Cuba, many see her as a humble hero who may not have had the prominent charisma of Castro or Guevara, but had equal responsibility for the revolution that brought Cuban sovereignty.



Nobody Takes Prisoners

Author's Note: Most information in this essay is sourced from an interview that has now been scrubbed from the internet, though is referenced online. The claims around Andrey Medvedev's life are sourced from his testimony alone. At this time the war discussed is ongoing and information around it is heavily suppressed and disputed thus facts are hard to verify. Notably, Andrey Medvedev has had legal troubles with the Norwegian authorities and at this time is in custody for matters unrelated to the war.

Written by Wyatt Hanson

"Nobody takes prisoners". That was a statement from the general staff commanding the forces of PMC "Wagner" in the Donbas to Andrey Medvedev, Squad leader of the 7th Assault Detachment, 4th Platoon, 1st squad. He was a contract soldier, four months, then six, then eight, then indefinite. They said he'd be digging trenches; instead, he was on the frontlines. It was in his contract that he listened to orders or be court martialed, an act under PMC Wagner, synonymous with execution. On a mission during the battle of Bakhmut, his squad was ordered to attack a psychiatric hospital near what used to be a small village called Vesela Dolyna. The details of the engagement are lost, though four Ukrainian prisoners were taken by Andrey and his squad. The four were taken back to a command unit and interrogated, most certainly violently. Eventually, it was decided that the men had no tactical information of any importance, and they were marched to the town square of Klynove village. The men were ordered to their knees, the town square around them not free of witnesses, far from it, trucks bustling by, soldiers maintaining rifles, and behind them a couple of soldiers supposedly under the PMC's medical formation referred to as MED. These medical soldiers raised their rifles, and one by one, the men were slaughtered like cattle. Their bodies would be dragged away to some mass grave that used to be an artillery crater. Andrey Medvedev witnessed their deaths and many more. He was an orphan from Siberia, and he was denied any state aid he was owed by law, leaving the PMC as his only option. He had to learn the hard way that he wasn't conducting a simple military operation; he was taking part in a genocide against men who, within his lifetime, were called brothers.

"The men were ordered to their knees."

With the fall of the Soviet Union came the collapse of the Russian Empire built after World War II. Out of it was born the Russian Federation, Ukraine, Belarus, and others. Ukraine was the biggest loss, however, for the empire. It was a land of endless fields and sparkling skies, as shown on their banner, home to extensive soviet infrastructure and even possessing nuclear weaponry. Though this land was of great importance to the East Slavic Empire, it was long treated with extreme prejudice. The sack of Kyiv and the brutality during the empire's founding. The Holodomor, a targeted famine that wiped out around 7,000,000 or more in 1932. The great purge, where hundreds were rounded up and killed for defying Stalin. Upwards of 300,000 murders of Ukrainian civilians during the reverse scorched earth campaign while defending against the Nazis in World War II. Numerous postwar purges of suspected dissidents during the Cold War. Chornobyl. But after it all, the Ukrainians decided to trust the Russian Federation and made a simple deal: they would give up the nuclear weapons they held, and in exchange, their territories would be recognized as sovereign and never infringed upon. For twenty-three years, the Russians held their word, but President Vladimir Putin would let any goodwill remaining between the nations burn and invaded Crimea in 2014. Many may look upon this event and see a quick exchange of land, a military operation, and

"He had to learn the hard way that he wasn't conducting a simple military operation; he was taking part in a genocide against men who, within his lifetime, he had called brothers."



a change on the map, but that's far from what this was. This was Russia telling the Ukrainians that the deal was void; they were once again to be the punching bag of the Slavic world. Many may ask why? Why Ukraine? And simply put, for centuries, Ukraine's placement on the map, as a flat, easily maneuverable, highly rural region, and its culture being just so different from Russian, made it perfect to ever catch the ire of Russia. For Russia is a nation paranoid of invasion, and Ukraine is the doorway to Russia proper, and so they must forever be made a satellite to the Russians to protect them from the "inevitable" invasion from Western Europe.

Andrey worked alongside conscripted prisoners—they were criminals from Russia given a "chance" at freedom via joining PMC Wagner; prisoner groups were marked as "K". These prisoners were liable to desert far more than other soldiers, and so had special Security Service members posted to their squads to keep them in line. These prisoners were short-lived, and many that did were labeled 500s. It meant someone who was scared, Andrey said, someone who understood what was going on and wanted out. These 500s were often picked out and sent on death missions. Andrey was once grouped in on one of these death missions, put in charge of 10 K soldiers in a platoon of thirty. The mission ended as soon as it started; they were driven out on buses to the frontline and simply dropped into the field with orders to advance. Then, after around thirty minutes, Russian artillery fire started. Only four, including Andrey, survived the mission. The bodies were never recovered; they almost never are. Mass graves are dug, and logisticians simply mark them as MIA so as not to upset families.

After the Russians declared Crimea annexed, "separatist" groups in Donetsk and Luhansk popped up, armed and supplied by the Russians—likely manned too. The Ukrainian military would drive back the separatists over and over into Russia, but they would just come back. This continued for eight years until 2022, when Russia launched a full-scale invasion of Ukraine. Ukraine called a general mobilization order and thus began a total war. Though Russia was internationally sanctioned and condemned, it did little to stop them; it was the Ukrainians who did that. The initial push towards Kyiv, leaving hundreds of dead civilians in its wake, was stopped, and though territory in the Donbas was lost, a nation of 32 million was holding back the successor to a global superpower and still is.

Andrey would escape PMC Wagner in November of 2022, but not before nearly being executed himself. His

outspokenness with the command led him to be arrested and placed under arrest. With help from his squad, he was freed and made an escape into Russia proper and went into hiding. He tried to reach out to Russian media outlets, but was denied; they didn't want his story, they needed more bodies for the war machine, and that means keeping the people in the dark about how bad it really is. Andrey would end up seeking asylum in Norway, entering the country through its arctic border with Russia. There, he would tell his story to a network called "gulagu" that conducted an interview. It would be later wiped from the internet due to Andrey's legal troubles in Norway, leading to the questioning of his credibility.

PMC Wagner had long been the secret army of Vladimir Putin, something to be thrown around the world to stir up trouble. A for-profit army paid for by the Russian government, but it would find its end in Ukraine. After a ten-month struggle for the city of Bakhmut, leading to well over 85,000 casualties for the Private Military Company, they would be largely removed from the frontline. The Russians who died there died in vain, for the city is not but a smoldering pile of ash, and the bloodshed only led to a change in the map measured in meters. Interestingly, under the leadership of a certain Yevgeny Prigozhin, the company would revolt against Putin in June of 2023. Prigozhin claimed to be a liberator and, over the course of a few days, drove his army north from Rostov on Don, claiming Putin must be stopped, but there was a sudden change in stance and surrender of Wagner to the Russian government directly. Days later, Prigozhin would coincidentally die in a plane crash. Over the next few months, Wagner would be reorganized and dismantled.

"This was Russia telling the Ukrainians that the deal was void; they were once again to be the punching bag of the Slavic world."

The horrors of the full-scale war in Europe cannot be definitely measured, though casualty estimates surpass 2,000,000, with the death toll being one-third of that. Casualties are not the best way to measure war; however, they don't factor in the trauma of losing a brother, father, or son, the displacement of the millions of innocent Ukrainians, the young girls raped, or the cities leveled to dust. It is said the Ukrainian flag should be changed from blue and gold to red and black. Red for the blood split over the centuries, and black for the dirt that defines their homeland, the reason why the blood was spilt. Many may be quick to demonize the Russians, to see the term synonymous with enemy, but I may ask you not to be so quick. The people of Russia are fed daily the lies of the state, many live without plumbing, gangs roam the streets of major cities, and the line between state and organized crime has become nonexistent. These people are told to be angry at everyone else, to treasure a glorified past, to sacrifice their sons, daughters, and souls for the motherland. Andrey was an orphan from Kolpashevsky district, a place two thousand miles from Ukraine—for reference, Mexico City is around 1,700 miles from the twin cities. The people of Russia have been beaten down for over a millennium; the 21st century has been no different. Blame the leadership, blame the people for letting them take over, but oppression is the only authority the Russians know. The tragedy of Andrey Medvedev is that he has been in and out of trouble with the police in Norway for drinking and getting in fights, yet his words remain true for all humans, I feel. "I want a normal human life without any repressions or persecutions. Just a normal human life on a peaceful land, where they truly value a person's opinion, value their rights, and are ready to respect them without any repressions or persecutions. A simple, normal human life."

"His outspokenness with the command led him to be placed under arrest."

The Secrets Hidden Within

Author's Note: This story was inspired by my grandpa, and my aspiration to learn about my culture. The main character is my Yawg Txiv, or my grandpa on my dad's side. My grandpa fought in the Vietnam War but I didn't really realize that until recently, and I don't know what role he played in the war. After the Vietnam War my grandpa took a job as a mechanic and helped look after me, my siblings, and my cousins. I wanted to write this story to honor what my grandpa has done for us.

Written by Jackson Vang

The date was 1961. The temperature was hot, and it was very humid. I was standing straight with my hands beside me, and to my left and right, there were many people standing in a line with me. It was quiet, but then I heard "ATTENTION!!" I looked straight ahead and heard a loud stomping boot coming towards me. I couldn't remember anything, not even his name, but I knew he was from the Special Forces. After he introduced himself, he gave us basic training for our bodies and for using guns. The training was intense and almost gave all of us heatstroke. After we were done with training, we headed to bed. As I was in bed, I felt as if I was melting because my body felt so sore, but with the humid temperature, I couldn't fall asleep immediately. As I lay down, I started to hope that my parents and younger brother were safe.

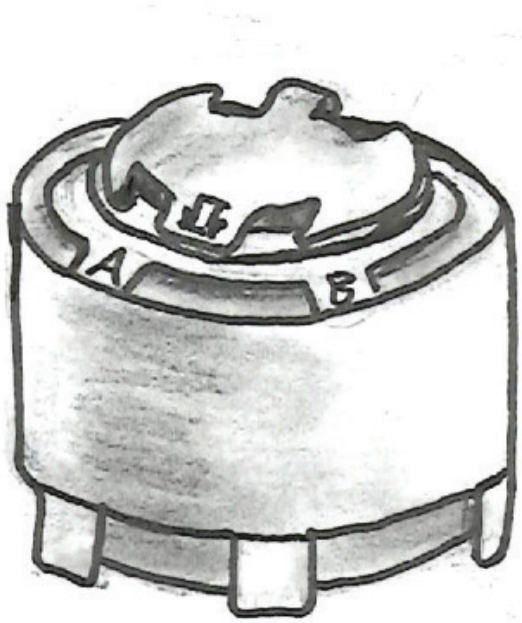
The Special Guerrilla Unit (SGU) was an armed force during the Vietnam War that was mostly composed of soldiers of Asian ethnicity, specifically Hmong people. Training for future SGU members was intense and had to be done within three days. Within those three days, SGU members learned guerrilla tactics and how to gather intelligence.

My unit woke up early in the morning. I was startled by the loud yelling from the man who trained us yesterday, "WAKE UP MEN, WE ARE GOING FOR A MORNING RUN SO GET READY IN FIVE MINUTES!!" As I got myself ready, many of the people inside my unit looked tired and dead. Looks like they didn't get much sleep either. When I went outside, it was the same as yesterday, hot and humid. I would've thought that the Highlands would've gotten more wind, but I thought wrong. I got into formation, and the trainer announced that we'd be running for two hours.

"I was holding my breath for about five minutes, and I felt like I was losing consciousness."

30 minutes into the run, my lungs felt like they were about to give up. As I looked around, all of my fellow men looked like they were about to give up, too. 10 more minutes and my lungs felt like they'd been shot through, but after another five minutes we stopped, and the trainer told us to take a 10-minute break. I felt as if I was going to collapse, and my legs were about to fall apart into tiny pieces. After the break, we continued with the run, and it felt exactly the same. When we were done, the trainer was yelling, "EVERYONE TAKE A ONE-HOUR BREAK AND HEAD INTO THE MAIN BUILDING." Everyone was covered in sweat, and some people looked like they were about to pass out from just standing.

The Special Guerrilla Unit training camps were



mainly located in the highlands of Laos, where the temperature can reach up to 95ºF during the hot/dry months of March to April. The rainy season starts in May to October, and the temperature reaches around 60ºF to 80ºF. Humidity during the rainy season is very high, and can reach 80% to 90% humidity during monsoons.

When the one-hour break was over, I headed towards the main building on the dirt road. Entering the room, it was hot and sweaty, and it looked like everyone was super slippery. I sat down. There was a new trainer, and he called himself Instructor Jim Whites. He turned off the lights and turned on a projector that was showing slides of guerrilla tactics. After the guerrilla tactics, they swapped the slides for instructions on how to save helicopter pilots. When we were done, we went outside for training drills on saving downed helicopter pilots. The drill used plastic dummies simulating the pilots, and we were supposed to apply first aid to them and carry them out of combat.

The main purpose of the Special Guerrilla Unit was to fight against guerrilla warfare from the Vietcong and the Pathet Lao. The SGU also sabotaged supply routes on the Ho Chi Minh Trail and also saved helicopter pilots from crash sites. They fought with American troops to fend off the PAVN and Pathet Lao in Laos, and protected critical US infrastructure while providing intelligence on Northern Vietnam.

When the training drill was over, it looked like the sun was going down, and someone yelled that it was time for dinner. When I got done with my part of the drill, I started to walk towards the dining hall while others jogged or ran towards it. There were so many of us that our footsteps started to shake the ground. I got my food on a tray that was separated into five different sections, but the rice and fish they gave us only took up two. As I sat down next to a bunch of people, they asked me, "Koj lub npe hu li cas?" (What is your name?) I looked at them and said, "Kuv Lub npe yog Asia" (My name is Asia), and they introduced themselves. One person was named Neng Vue, who was skinny but taller than most Hmoob people here. Another person was Tou Lor, who had a muscular build and was a bit chubby. These two would become the only people I would know while training and fighting.

When SGU soldiers were on the field, they foraged for food because of their knowledge of the jungle. SGU soldiers were given C-Rations (canned food like meat, beans, and fruits), but they often foraged for food in the jungle due to supplies being limited. SGU soldiers were also given food rations called Packet Indigenous Ration, or PIR for short. These indigenous rations contained freeze-dried rice with shrimp or fish.

Neng said he was from a family of four, including an eight-year-old little sister named Mingh. He and his father used to hunt while his mom watched over Mingh and prepped food and did house chores. I learned a lot about Neng and his life, but the next day, we were split up and told to get into straight lines of ten. The trainer walked towards us and yelled: "TODAY IS THE LAST DAY OF THIS TRAINING, YOU MUST FOLLOW ALL ORDERS FOR YOU TO GRADUATE FROM THIS TRAINING." Training was the same as the previous days but more grueling. It was pushing us to our absolute limits. All of us were covered in sweat and constantly trying to catch our breath, but the trainer kept yelling at us. Every time he yelled at us, I felt like his voice was becoming louder than before. When it was over, I headed towards the main building with my platoon, but with each boot stomping, my hearing kept going in and out, and I felt like my legs were about to give out. Tou walked up to help and supported me with his arm, saying "Peb yuav luag txog qhov ntawd lawm, tsuas yog ob peb kauj ruam ntxiv xwb" (we are almost there, just a couple of more steps). After we finished our lesson for the day and got dinner, I went straight to the barracks to sleep and dreamed about going back to my family and our farm.

"Everyone was covered in sweat, and some people looked like they were about to pass out from just standing."

During the Vietnam War, American soldiers usually fought in close-quarters combat while being in the jungle, and there were frequent ambushes from enemy soldiers. There were also traps that the Vietcong and Pathet Lao set up, including hidden trapdoors, fountain pen traps, and many more. Most soldiers during the war died due to the guerrilla warfare tactics of the Vietcong and the Pathet Lao, but with the SGU, injuries and death rates were lower. SGU knew the surrounding area well, so they provided support by disarming traps.

Today's the day we get deployed. The battalion that I'm in is being sent to Vietnam. Our main missions are to rescue downed helicopter pilots, gain and protect intel, sabotage supply lines for the communist party, and disarm any traps that the Vietcong placed.

I spent 7 years with the battalion and saw many fire fights. I met up with Neng and Tou, and we stuck as a trio in our group of people. On many missions, I disarmed traps, learning that punji sticks and M14 mines were really common. If I made one mistake while disarming the M14 mines, my hands would be gone.

It's been 14 years since I last saw my family. I turned 29 in 1975, and the years I've spent fighting in this war have been a living hell. I've seen many Hmong men and American men die from traps or lose or dismember limbs. Many of those men were only 15 to 20 years old. But what hit me the most was when I saw Tou step on a Toe Popper. Tou and I, along with seven other people, were sent to rescue a downed pilot far from the Lima site where we were located. We traversed through 30 minutes of thick jungle to find the downed pilot. We made sure he was in a condition to walk, and as we were about to go, Tou hit a Toe Popper, and it exploded on his right foot. Tou was screaming in pain, and his right foot was missing. We administered medical supplies to him as much as we could and got him on a bamboo stretcher. I led the way to see if there were any more traps on the way back. As we entered the Lima site, we called for a helicopter to bring them to another site for additional medical care. I have not seen Tou since that day.

"If I made one mistake while disarming the M14 mines, my hands would be gone."

On May 15th, 1975, America withdrew from the war, and I headed back to my village in the mountains of Laos. Neng and my villages were near each other, and on the ride to them, I truly felt as if the fighting was over. As the wind blew in our faces, we started to reflect on the past 14 years. We started to talk about what we wanted to do in the villages and how we're gonna spend our time resting. But by 1984, my village had to leave Laos to avoid persecution, so we started to descend from the mountains. I met up with Neng and his village to compose a plan to get into Thailand. We were planning to walk towards the Mekong River and swim across to get there.

It was a rigid trek; we all hid from the communist party while foraging for food. I was up front checking for any traps left behind from the war, and Neng was in the back helping those who were falling behind. The trek took six to eight weeks to walk from the mountains to the river. When we got to the river, we made small rafts for the women and children, and the men stayed behind to see if it was clear to swim over.

That day was the day when everything went wrong. The current was too harsh on the raft,s and many struggled to stay on. The Vietcong had heard us. We could hear dogs barking and boats coming straight towards us. Half of the group ended up in the river. Most of the men hadn't made it. There were many bodies floating down the river, but I told Neng that we had to start swimming now so we didn't get caught. I jumped into the river, and it felt like there were ten people pushing against me as I swam. I spotted a boat that was capturing people, and I put my head under the water and held my breath to avoid them. I was holding my breath for about five minutes, and I felt like I was losing consciousness. I went up to the surface to get some air, and the boat passed by me. I swam to the other side as quickly as I could. As I got to the other side I started searching for whoever was part of my group and helped them out of the water. I was cold and my whole body felt as if it was frozen solid, but I kept moving. I helped as many people as I could as we escaped from the scene. When we got to a city called Nong Khai we were escorted to a refugee camp. We spent a year there until we immigrated to the United States. We landed in Minnesota and spent the rest of our lives there.

In the year 2024, my grandson came up to me and his grandmother and asked to interview us. I agreed to talk to him. He said that it was for a podcast he was making for school. We gave him all the information that he asked us about. He asked "What year do you migrate to the US?" I said "When? 1976." After that he asked "What was the reason?" "uhh… Vietnam." As he leaves our house, I happily smile for him as he learns more about our culture and the secrets within it.

Qhov kawg ntawm zaj dab neeg.



Forgotten Funerals

Author's Note: This story follows a fictionalized perspective of someone living through the AIDS crisis, and while the person we follow never existed, almost every situation detailed here comes from the personal stories of those who did live through the AIDS crisis firsthand. I wanted to tell this story as a queer person who's heard the horror stories in queer areas but found that most non-queer people have only heard of AIDS in vague and frankly inaccurate terms, let alone know about how bad the response to it was or how bleak a time it was for the affected communities.

Written by Kaden McNamara

Can I ask you a quick question? How many funerals do you think you've been to in your lifetime? I know that's a bit of a weird question, but hear me out.

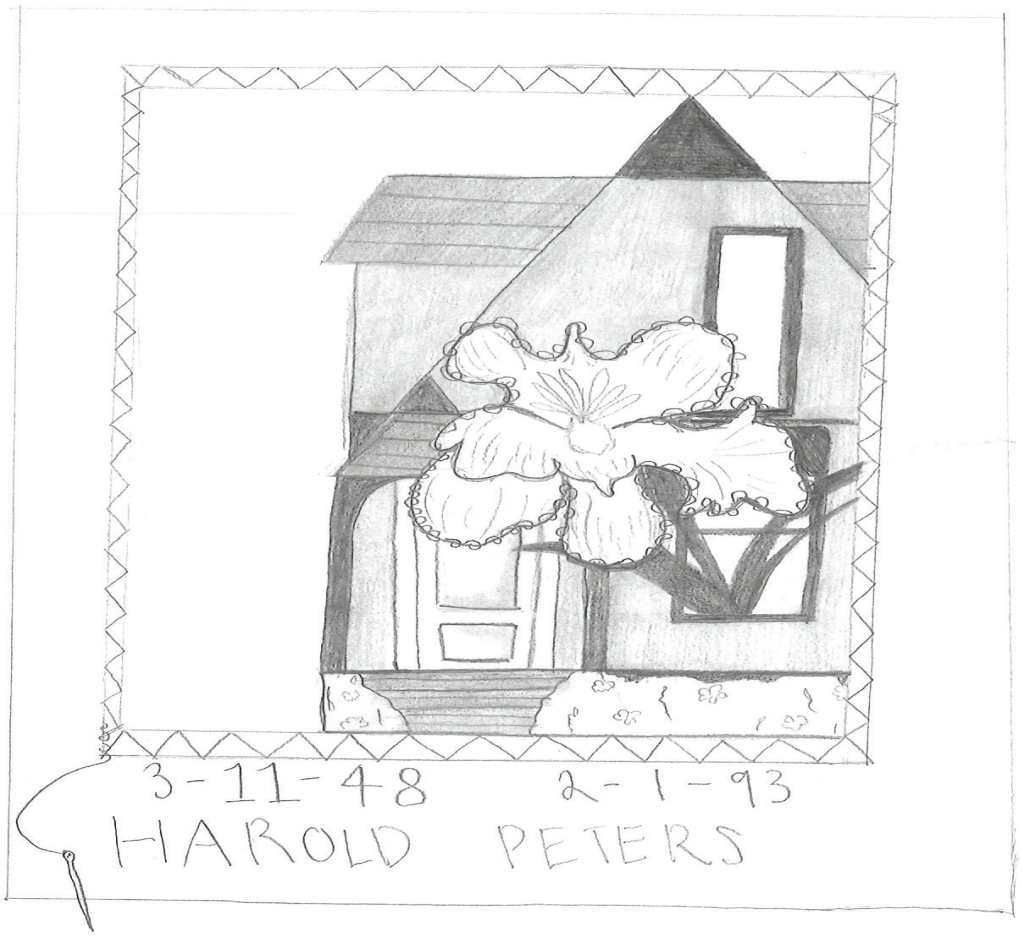
This is the fifth funeral I've been to this year alone, and it's only mid-August. Isn't that sad? I barely even know the guy, and yet here I stand as one of his pallbearers. Not because no one cared about him, but because everybody else who did are all gone, or at least on their way there. Honestly, this entire church is filled with people who didn't know him, yet we're all mourning him as if he were our lover. For once, his parents accepted him, and we wanted to show them just how loved he was. Every time someone's parents get a glimpse of one of our funerals, they're always so surprised that we have so many friends. "He didn't have this many friends in high school," they'll say. Don't worry, none of us did either. Yet now we are at what is practically our version of a pool party nowadays. Welcome to America in the 1980s. We're all trying to survive the AIDS crisis; I really hope at least some of us do in the end.

Acquired Immunodeficiency Syndrome, better known as AIDS, or Human Immunodeficiency Virus (HIV) in the earlier stages, is a disease that targets white blood cells in the body, weakening the immune system and making it far easier to get infected with other diseases, cancers, or infections. According to the WHO, "HIV can be transmitted via the exchange of body fluids from people living with HIV, including blood, breast milk, semen, and vaginal secretions. HIV can also be transmitted to a child during pregnancy and delivery. People cannot become infected with HIV through ordinary day-to-day contact such as kissing, hugging, shaking hands, or sharing personal objects, food, or water." The initial outbreak of AIDS came about in June 1981 and primarily affected minority populations such as African Americans, Hispanic/Latino Americans, drug users, transgender women, and, most infamously, gay and bisexual men.

1982. I sit at the bedside of my oldest friend, Eric. He's been in the hospital for several months for Kaposi's sarcoma—a usually harmless skin cancer that does little more than enlarge lymph nodes over the body—something that people have historically lived with for upwards of 20 years. It's a real wonder why it has affected him so badly. To my great despair, almost none of the medical staff is even willing to touch him, let alone try to treat him. Something about AIDS being a newer disease, and nobody wanting to risk getting it by coming into contact with him. Well, that and the fact that he's gay, and so their prejudices are making them refuse us service. I sit there watching Eric's suffering, riddled with a myriad of usually harmless diseases: Kaposi's sarcoma, pneumonia, CMV, and bronchitis. I watched him lie there with these giant purple sores littering the face I knew as well as the back of my hand, see him struggle to breathe even with medical assistance pumping air into his throat, I had to watch this face that I loved die before my eyes, as I begged for anybody to ease his suffering. We ended up pulling the plug on his medical devices a month later to spare him any more pain.

1984. I've seen so many of my contemporaries waste away from this disease, yet I still cannot do anything to help them myself. The best I could do for them is to donate blood, but since last year, none of us can even do that much for our community. Apparently, fears about gay men having AIDS caused a blanket ban on any of us homosexuals donating blood, so I can't even do anything of any real importance to help the people who took care of me and gave me an actual community. I

"Why would we plan for our future when we knew we were going to die before the turn of the millennium?"



can't even give them as little as a drop of my blood to help save their life. I go to yet another funeral. At this point, they are starting to blur together a little bit.

However, to quote Diva Magazine: "the gay community was not totally abandoned in their time of need. Lesbians quickly banded together to support their gay brothers and others afflicted with the virus, organizing grassroots efforts to provide care and challenge injustice." The Blood Sisters were an organization of lesbians during the AIDS crisis who banded together to provide medical care in place of homophobic medical practitioners. They held blood drives and donated blood themselves, providing dignified end-of-life care and companionship for those too far gone, raised awareness of HIV and safe sex, and so much more.

Doctors may not have treated anybody who was the slightest bit queer, our families may not have shown up until it was time to empty our apartments, and the government may not have given any of the information that could've saved thousands of us, but our sisters showed up and helped, because our community has to fend for itself in this world.

1985. Hollywood star Rock Hudson and good friend of United States president Ronald Reagan, publicly came out as having AIDS before he died a few months later of AIDS related complications. Despite the loss of a friend of the president, "the Reagan administration's response was not only ineffective but also excruciatingly silent for the first five years of the epidemic. Without a substantial federal response, this obscure infection evolved into an epidemic that erased a generation of Americans in the span of half a decade," according to Jacqueline A. Ortiz from Vanderbilt University.

"You mention AIDS today, and there's either still some stigma attached to it, or it's just dismissed as another STD."

The people who should have been working to minimize the spread of AIDS and to manufacture a vaccine found our suffering a joke. In a 1984 interview, White House Secretary Larry Speakes said, "'You mean [Reagan] has expressed no opinion about this epidemic?' 'No! But I must confess, I haven't asked him about it. (Laughter.)'" They thought AIDS was a moral punish-

ment for "the poor homosexuals [who] have declared war on nature, and now nature is exacting an awful retribution," as per the words of White House Communications Director Pat Buchanan. They leaned into the economic program of 'Reaganomics,' which, according to historian Raymond Smith, maintained that "the CDC did not need the money and opposed any congressional supplemental appropriations designed to fund the federal government AIDS policy efforts."

"During the darkest days of the AIDS crisis, we buried our friends in the morning, we protested in the afternoon, and we danced all night."

This lackluster approach to the epidemic caused over 12,000 deaths by the end of Reagan's first term in 1985, and a total of 120,453 deaths by the epidemic's peak year of 1990. Reagan would not publicly address the virus until 1987 (and even then only as a joke), but the very public passing of Rock Hudson did bring AIDS into the limelight as something that the public had to pay attention to, although any accurate information about AIDS was still kept from the public.

"During the darkest days of the AIDS crisis, we buried our friends in the morning, we protested in the afternoon, and we danced all night. The dance kept us in the fight because it was the dance we were fighting for. It didn't look like we were going to win, and then we did. It doesn't feel like we're going to win now, but we could. Keep fighting. Keep dancing." This is perhaps the most infamous quote about the AIDS crisis. Said by Dan Savage, a gay activist and the founder of the It Gets Better project, it's a pretty good summary of our lives during those days. But I couldn't truly call it living. We were more so struggling to survive until sunset, day after day, a Sisyphean tale where we watched hundreds of boulder pushers drop like flies around us. So many of us didn't make it. Those of us who did never really imagined a future beyond the dawn. Yes, we fought tooth and nail to be heard, but we never really had a plan beyond that. It was practically agreed upon that once diagnosed, you'd mark a date 18 months to two years from then and make your amends. Why would we plan for our future when we knew we were going to die before the turn of the millennium? Life savings got spent on bucket lists, fortunes were spent on hospital bills, and futures were spent on funerals.

Yet we pushed on—we mourned our lost loved ones, but we fought on, and we survived. Despite it all, we survived, and we won. None of us expected that to happen, but we couldn't be happier. HIV and AIDS are treatable now, with treatments that make it so others can't contract them. Sex education has improved drastically, and life-saving condoms are free for anyone to take. We can actually marry in the eyes of the law. People aren't using our very identities as slurs in the streets anymore, or using the slightest idea of queerness as a taboo. Kids can be openly proud of their identities and be cheered for it, not having to hide who they love. We won. It isn't a perfect victory. We still have so many more friends of Dorothy to fight for, and rollbacks to stand against, but we did so well with what we had.

2024. 42.3 million people worldwide have died of AIDS. In the US alone, 13,000 people still die of AIDS every year. Almost everybody I knew is dead; an entire generation was deemed disposable because they were gay. The worst part is that so few people even realized how bad it really was. You mention AIDS today, and there's either still some stigma attached to it, or it's just dismissed as another STD. People ask nowadays why they don't see any queer people above the age of 30. Truth is, we've always been here, but there's only a handful of us who managed to survive. But I hope the kids who carry our torch with rainbow-tipped flames know that we're proud you can be unabashedly yourselves, proud that so many of you don't need the closets we lived in. So please, from someone who went through the worst of it, keep fighting for your community. Keep dancing for joy. It's your turn now to win, so give them hell.



Pleading for Justice

Author's Note: When Leo introduced the survival story summative to the class, I instantly thought of Huey P Newton surviving injustices in his trial, which I had learned about last year when I did a History Day project on the Black Panther Party.

Written by Sir Nahkai Guy-Cornelious

On December 4, 1969, 8 months pregnant, Akua Njeri was in an apartment with her fiancé, Fred Hampton, and 10 other members of the Black Panther Party. A couple of hours into the night, Njeri was woken up. "The first thing I remember was 'Chairman, wake up, wake up, the pigs are vamping, the pigs are vamping!"

"Open up," the police said, banging on the door. Answering, 22-year-old Defense Captain Mark Clark asked who was there. "The pigs responded with 'Tommy Gun' and kicked in the door and began spraying," Njeri remembered. And the sound of the shots, Nejeri jumped to protect sleeping Hampton, "I saw bullets from the front of the apartment… Sparks of light. I had slid over on top of Chairman Fred. I don't know what I was thinking, or what I was doing, I just moved over and covered his body." As the bullets continued to fly, Njeri kept trying to wake up Hampton, but he remained unresponsive, "never said a word, he never got up out of the bed." The shooting lasted for minutes but felt like hours for Njeri. "Someone kept calling out, 'Stop shooting! Stop shooting! We have a pregnant woman, a pregnant sister in here! At the time, I was 8 and a half, maybe 9 months pregnant. Pigs kept on shooting," Njeri stated. When the shooting finally ended, Njeri got out of bed and put her hands up so they wouldn't shoot her, too. The police were laughing as they slugged her into the kitchen area and handcuffed her. When the officers entered the bedroom with Hampton, they announced that he would barely make it. "The shooting started back again. The pigs said He's good and dead now," said Nejeri. To avoid breaking down, Nejeri avoided looking into the bedroom but caught a glimpse of Defense Captain Mark Clark lying in the living room in a pool of blood. "When I was handcuffed, the police said, 'You better not run, you better not try to escape,' and he kept pressing that gun to my belly. So my child felt that cold steel," Nejeri remembered. She and the rest of the surviving members would be arrested and charged with attempted murder and aggravated assault for the raid. Nejeri felt guilty for a long time that she was the one who survived and not Hampton. But she didn't give up activism, "Because we're still not free. Power to the people has not become a reality," she stated.

The Black Panther Party (BPP) was founded in 1966 in response to the assassination of Malcom X, police brutality cases such as Matthew Johnson, and riots in places like Hunters Point, during the civil rights movement. They sought to fight against police brutality by using the laws in their favor. Going on patrols observing police interactions, paying people's bail, and bearing guns for self-defense and the defense of the people. It was during these patrols that the BPP gained notoriety and started recruiting people who wanted to join to fight against police brutality, too. When recruited, people were educated on the search and seizure, right to bear arms, and arrest procedure laws. Additionally, the new recruiters were introduced to the works and teachings of Malcom X, W.E.B Du Bois, Frantz Fanon, Mao Zedong, and Marcus Garvey. In doing all this, they were fighting for their mission of achieving the BPP Ten Point Program. This was the list of demands they made to get justice for black communities. "7. We want an immediate end to police brutality and the murder of black people. 8. We want freedom for all black men held in federal, state, county, and city prisons and jails. 9. We want all black people, when brought to trial, to be tried in court by a jury of their peer group or people from their black communities, as defined by the Consti-

"The shooting lasted for minutes but felt like hours for Njeri. "Someone kept calling out, 'Stop shooting! Stop shooting! We have a pregnant woman, a pregnant sister in here! At the time, I was 8 and a half, maybe 9 months pregnant. Pigs kept on shooting," Njeri stated."



tution of the United States." Black people experiencing the injustice in their communities quickly joined the BPP to fight for their rights because the justice system wasn't doing so.

In 1967, William O'Neal was out with a friend, drinking beer, and decided to go on a joy ride. They hopped into a car and stole it. They drove around Chicago for 45 minutes and decided to leave the state to visit a relative. On the trip, they made a stop at a pool hall. As soon as they were done shooting pool, they got back into the stolen car and got into an accident. They fled on foot and took a bus back to Chicago. Four months went by, and O'Neal received a phone call from an FBI agent named Roy Mitchell. Mitchell knew of the crime but told O'Neal it was no big deal and "I'm sure we can work it out." A few more months went by, and O'Neal received a call from Mitcheal asking him to join the BPP. Being scared of prison, O'Neal complied, "But stealing a car and all of a sudden having a case with the FBI, the thought of really going to jail caught my attention." O'Neal joined the party the next day as an informant, and through the next months worked his way up to chief security and security guard of Hampton. Mitchell would schedule meetings with O'Neal, where vital information was given to the FBI to perform raids on the BBP. "I also knew the most vulnerable spot was Hampton's house because it was the one that had all the weapons in it… Very few other apartments had the kind of weapons he had at that apartment. So, when he asked me for the diagram, it didn't surprise me." On December 3, 1969, Hampton, O'Neal, and other BPP members were in the office. It was a slow, melancholy day. Later that evening, they decided to all walk to Hampton's house and eat dinner. O'Neal left hours before the police raid without any of the members suspecting a thing. "It was just too quiet. Nothing was happening. Totally off guard." Later that night, Hampton was killed with the help of O'Neal's tips to the FBI.

Out of all American convictions, 95% are plea deals. This shows that people in the American justice system are more likely than not to take the route that reassures them the shortest amount of prison time. People often take the plea over fighting their innocence even if they really didn't do it, because if they are found guilty, they will get a long time in America's harsh and violent prisons. So if they're offered a chance with a high probability of erasing all of the jail time, as a whole, most would take it. This is where informants come in. Usually, only offered to people who are facing serious jail time, informant deals offer people a chance to erase all

their prison time. This is what drives people to become informants. When the cops promise, "We won't charge you," these people are willing to lock up others for their own personal freedom. And this deal gets ever so much more tempting to people of color due to them getting longer sentences than white people for the same crime. Even after all the progress we've made in the past few decades to fix this country's inequality, in 2023, black males were sentenced 13.4% longer than white males, and Hispanic females were sentenced 27.8% longer than white females. This disparity is what drove O'Neal to become an informant despite genuinely connecting with some of the BPP values. He knew he would get an unfair amount of time due to the unfair justice system. So he became an informant to protect himself against the injustice.

In the fall of 1937, in Mississippi, men pounded on

"7. We want an immediate end to police brutality and the murder of black people. 8. We want freedom for all black men held in federal, state, county, and city prisons and jails. 9. We want all black people, when brought to trial, to be tried in court by a jury of their peer group or people from their black communities, as defined by the Constitution of the United States."

Ida Mae's door with a chain held up to her. Scaring her, her children, and her sisters-in-law, she went to find her cousin's husband-in-law, Joe Lee. The men were looking for Joe Lee because they said he stole Addie B.'s turkeys that belonged to Mr. Ed, the man they work for. Just before this, a colored man a few miles from here was whipped for asking for a receipt. But what Lee was accused of was a way more serious matter. They took Lee near the schoolhouse and laid him across a log. They beat Lee with chains relentlessly, even though Lee said he knew nothing of the chickens. "They beat him until his coveralls turned red with blood and stuck to the surface of his skin as if with adhesive. Then took him to the Chickasaw County jail and left him bleeding alone in the cell. The very next morning, the "stolen"

"So these victims who have no trust in the police or the justice department take their safety into their own hands."

turkeys wandered back into Addie B's yard before Ida was informed why they took Lee and what they did to him. The men gave no apologies because they felt no sympathy for accidentally getting the wrong man. A man named George went to Edd to ask where they had taken Lee, and Edd gave him the go-ahead to free him from jail. George and other colored men had to apply grease to peel off Lee's coveralls. They gave him a fresh pair of clothes and carried him back to the farm. Lee's wounds healed with time, but this stayed with George. Lee could have easily died for a crime he didn't commit, and George recognized that it wasn't the first time this had happened and could very easily happen to him, too. George had a brother in Chicago, and instead of waiting around for him to be next, he fled to the North.

It is well known that many violent crimes are not actually ever reported to the police. Older white females who are married are more likely to report than youthful minorities. Part of this is due to the lack of police trust in minority groups. Minority groups have, on average, less trust in the police force due to things such as racism, police brutality, and the history of the police force. This lack of trust makes the victims feel like, oftentimes, if they call the police, either nothing will happen, or the situation will be made worse. So these victims who have no trust in the police or the justice department take their safety into their own hands. Sometimes it's fleeing away from their assailant. Sometimes it's working with the police to shorten your sentence. And other times it's just accepting that they can't do anything about it because the justice system historically works against them.

Under the ICE

Author's Note: The following is a true story about my experience with ICE. Little by little, I started to care more and more about their presence and the constant media coverage that came with it, and that led me to spiral into a poor mental state. This story was written as a compilation of my own experiences that occurred within the span of a few weeks.

Written by Teddie Lopez

I found myself buried deep in my arms, my head resting on my desk. The classroom was silent, and I had my headphones on, lightly playing music. I had taken a break from doing my homework, and I decided to lie my head down, as there were only 20 minutes left until I was released from school. My friend sat next to me, drawing his own pictures. Everybody else seemed to be doing their own thing as well.

It was quiet and unproductive until I finally checked my phone to skip through my music on autopilot. I had the "Do Not Disturb" setting active on my phone, but I saw several texts from my mom sent about half an hour earlier. They all said something along the lines of, "ICE is near your school," "Walk to your bus quickly and keep your head down," "Tell me if you see anything out of the ordinary."

I read these messages as I was close to being released from school, and my stomach dropped. I tried my best to pay no mind to it. I told my friend about it, and he seemed extremely worried, which made it harder to ignore. As the bell rang, he wished me luck and asked me to text him if I was okay. He offered to walk me to my bus, but he had basketball practice. So I went to my bus alone. I made it on with ease, and the only thing I looked up to see was several unrecognizable faces with green vests on. I kept my head low on the bus and drifted off.

The United States is home to the largest immigrant population in the world, at 46 million people- about 14% of the country's population. 77% of these immigrants become residents with authorized immigration status, but still face structural violence, restrictive immigration policies, and general oppression that places them at a disadvantage.

Since the start of the second Trump administration, ICE has spiked in activity and started carrying out more detentions and deportations. When it comes to Immigration and Customs Enforcement (ICE) agents in Minnesota, roughly 4,000 were deployed under the Trump administration, and despite pulling hundreds of them in February, there are still agents at large. The agency also began targeting people with lawful statuses, such as green card and visa holders. This addition of racial profiling raised fear in almost everybody, as many people were prone to being questioned or detained based on how they look, inadvertently motivating people to avoid leaving the house and questioning or contacting authorities. The tactics ICE used in their Minnesota operations added to the stress of safety, as they were using tear gas and other chemical irritants, breaking down doors with battering rams, and smashing vehicle windows to drag people out of them.

Under my own stress, knowing that the simple existence of ICE and how crucial it was to my day-to-day life and my freedom was extremely upsetting. I didn't realize how prevalent a problem it was until it was right in front of me. It made it much harder to do schoolwork, and I started to feel a lot more anxious in classrooms. As a relatively uneducated Latino student, I had trouble fully grasping the situation until multiple unusual changes started to show up. My mother started to watch me walk to and from my bus stop and our house, and she urged me to stay off my phone when



walking outside. She didn't let me go to the gym either—and we rarely went outside, individually, or for errands. Several of my classes, even unrelated to history or social studies, would talk for the entire class period about what was happening with ICE. I wouldn't hear any less of that news at home, either. Countless people, immigrants or not, would be victimized, and it was all I ever heard about. I began to be less concerned about the problem itself and more concerned about how much I was hearing about it. Soon, there was a student walkout that happened, and I got to stay at home and watch it. There were several other walkouts happening at the same time, but they received limited media coverage.

When the option for online learning appeared, I urged my parents to let me participate in it. They believed that I was safer in a school setting rather than at home, but I found that hard to believe, even if it was true. My parents told me that it would "get better soon," so they decided to keep me in school. Many of my friends were gone, though, so I had much less to look forward to when I showed up to my classes. I was naturally worried more and more, and as of writing this, I still am. And knowing that ICE is still at large in Minnesota makes my life much harder. I refrained from letting it ruin my mental state too much, but it very well could if I was mismanaging my health. The idea that I could be questioned, have my rights violated, or even be harmed because of the color of my skin or my last name weighs on my mind like a boulder.

"The idea that I could be questioned, have my rights violated, or even be harmed because of the color of my skin or my last name weighs on my mind like a boulder."

What adds to that weight is hearing horrifying news nearly every day, causing many others like me to have to cool off after every interaction with the media. In my personal experience, I decided to try to stay away from the media as much as possible; I voluntarily avoided watching video footage, as well as watching the news on my own time. I knew that too much media indulgence can impact mental health and naturally trigger your fight-or-flight response. However, many tragedies relating to ICE continued to reach the news, showing how irresponsibly they exercised their authority. There are bits of video footage scattered around the internet, filming officers showing their recklessness or inexperience, protected by the Trump administration. The "Big Ugly Law" bill was passed to rush in under-trained and hostile ICE agents in exchange for reduced funding for schools and healthcare, which only logically creates more confusion for the people of the United States.

Senior Isiah Molina switched to online learning due to ICE being more "ruthless," and because he's a part of a community of color. Isiah explained that he constantly had a fear of going outside due to their presence, saying that he carried his backpack everywhere due to it containing his important documents of citizenship and identification in case he encountered ICE. Isiah would commonly check a website that tracks federal activity in areas where he was going, underlining that he had to be very careful and cautious when leaving the house. This sense of isolation in his home made him feel lonely, saying, "This is my last year of high school, too. It's not going to be like this forever, but it kind of sucks that it got robbed. Like my time got robbed because of ICE."

For students like Isiah, and for many others aware of the news, fear has become a part of daily life. Simple activities outside, like waiting at a bus stop or checking your phone, can now feel dangerous. It is mentally deteriorating for anybody to stress about their welfare while attempting to do loads of work or care for their family, making it much harder to concentrate on anything. And focusing on anything else can seem practically impossible because of the constant developments that ICE has, which end up all over the news. What students like Isiah and I want is simply the ability to live our lives normally—to go to school, work, home, and to think about our futures without fear hovering over our shoulders.



ICE OUT!

Author's Note: Perhaps the biggest event our classes survived this year was ICE's occupation of the Twin Cities, which many of us were heavily involved in protesting against. We wrote this story using a combination of student interviews and our personal memories of how the state resisted and survived during the historic time.

Written by Alva Healy, Anneli Lofgren, Halie Karre, and Kate Houle

"When immigrants' rights are under attack, what do we do? Stand up! Fight back!"

As we walked across the Wabasha Bridge to the Minnesota State Capitol, this chant rang out from the crowd of OWL students. Megaphones were leading rallying cries throughout the group as we climbed up the bridge into downtown Saint Paul. Everyone was involved.

From the front of the group, we could see hundreds of students from both Humboldt and OWL snaking down the road, barely contained by the sidewalk. The line was so long that chants would ripple down from the front to back, carried down the line by all our voices.

"The purpose of the walkout was to make student voices heard. A lot of the time, students feel like their opinion can't change things, and we knew that wasn't true. The actions of students are a call to action to everyone else. If children are hatching a fight against the damage and terror that ICE is causing, nobody is allowed to turn a blind eye to it," said junior Luke Hobday.

"I feel like sometimes when you're younger, you feel like you can't do as much to make a difference in something. And I think that attending the walkout and making it such a big deal really showed me and a lot of other people that anyone can get involved in something that they're really passionate about. I think it had a really big impact on everyone, and I think that's really important," agreed junior Claire Ales.

"What I was thinking about during the walkout were these famous civil rights protests, sometimes called the toothbrush protests, because they would have school children bring their toothbrush so that when the police showed up, they would have to have the spectacle of arresting literal children. It's just a very powerful statement to be like, these are children, and they are preparing to be arrested. They are preparing to go against federal and state authorities. I just thought that that was very powerful," said senior Halie Karre.

"After the walkout, I talked to a lot of adults, specifically my mom, and she said that because of what we did and seeing so many youth participating in activism and protesting against ICE, a lot of adults felt more empowered too, and it just gave a lot of people more energy to do larger, bigger, more influential protests," said junior Rahnia Droogsma.

ICE activity in Minnesota had clearly affected us all. As we crossed the first street after the bridge, dozens of community volunteers came in their neon vests to pave the way for our march, shielding us from traffic. The representatives from Indigenous Roots carried more signs for us and added their voices to the cries for peace and for freedom. Drivers along our path would put their cars at risk to block traffic and act as escorts for us, picking up materials and offering to drive them to the Capitol, where we would meet with 30 other Minnesota schools to protest ICE activity in our state. Every potential challenge had been covered by our week of extensive planning and inter-community coordination.

"Large ICE operations were in full swing by mid-2025 in Los Angeles and Chicago, showcasing ICE agents using violent and deceptive tactics to detain people and making mass arrests without the proper paperwork."

This had become a state we did not recognize. On January 14th, 2026, we walked out of school, marched to the Minnesota State Capitol, and held a rally with 2,000 students who shared our need to resist the federal invasion. The scene at the Capitol was overwhelming. As groups from across SPPS poured in from all directions, the enormous crowd would have to part 30 feet or more to allow the new influx of people to settle into the main area. Gazing out at the vast sea of solemn faces and signs protesting the occupation of our state, our power was unmistakable. In the face of such danger and such suffering, the youth of Minnesota were united and

impossible to ignore.

Since his re-election into office, President Donald Trump and his administration have made immigration issues a cornerstone of their political platform. During his 2024 campaign, he made multiple remarks, such as, "When I'm re-elected, we will begin– and we have no choice– the largest deportation operation in American history." Shortly after his election in 2024, he made good on his promises, deploying Immigration and Customs Enforcement (ICE) agents into American cities as early as June 2025.

Large ICE operations were in full swing by mid-2025 in Los Angeles and Chicago, showcasing ICE agents using violent and deceptive tactics to detain people and making mass arrests without the proper paperwork. This is also around the time when Alligator Alcatraz, a state-run immigrant detention center in the Florida Everglades, began operation. Trump was vocal on online platforms during this time, and in November 2025, he began to talk about the Somali population of Minnesota, referring to them as "garbage," among other comments. Following this escalating rhetoric, on December 1st, 2025, Operation Metro Surge, an invasion of ICE agents focused solely on the Minneapolis-Saint Paul area, began.

"This had become a state we did not recognize."

Operation Metro Surge was immediately different from previous ICE operations. When compared to Operation Midway Blitz in Chicago, Metro Surge had more than 3,000 immigration enforcement officers at its peak, in contrast to the few hundred in Chicago. This overabundance of agents was evident in the number of arrests that occurred during the operation, with the peak being more than 100 arrests a day in early January. ICE was specifically targeting Minnesota's Hispanic and Somali populations, and as their xenophobic activity continued, protests became more and more frequent and intense.

On January 7th, violence came to a head when a 37-year-old mother, wife, and writer named Renee Good was shot and killed by an ICE agent while standing up against ICE activity in Minneapolis. This event led to national outrage and the intensification of anti-ICE efforts across the country. Then, on January 24th, a Twin Cities resident and VA nurse named Alex Pretti was shot and killed by an ICE agent after a protest. Both of these events were recorded by bystanders, and public outcry was palpable following the release of the videos. The death of Alex Pretti marked the turning point of Metro Surge, and ICE activity de-escalated in Minnesota until February 12th, when the operation officially ended.

But even though mass federal activity was supposed to end in the Twin Cities, ICE presence still remains in the state, and the impact of Metro Surge continues to linger at OWL and beyond.

"A strong memory I have is of driving around town and seeing all the signs. There were a lot of signs on the old Sears building near the Capitol that my bus would drive by every day, and they were like five feet tall: Renee Good, murdered by ICE. Driving through Minneapolis, especially, it was like every street corner you'd see someone standing with a sign, and you'd see signs plastered up literally everywhere that were made by community members. It was just so obviously driven by people," said junior Connie Van Genderen.

"The moment that stuck with me the most was the protest that happened at MSP airport. I was there in the morning on the day that over 100 clergy and religious leaders from across Minnesota were arrested, and that was the moment when I realized that there's absolutely no justice system in this case. And I think it was also the moment that I realized justice means very different things to very different people. It was kind of eye-opening to see religious leaders on their knees singing songs, holding hands, being arrested by people with guns standing over them, and going peacefully," shared Rahnia.

We were not unaffected by ICE's presence. Our community was attacked, and we were not innocent bystanders. We did not get out of the way. We came together against Operation Metro Surge, and we made our voices heard.

Junior Alva Healy remembered, "On the day Alex Pretti was shot, I went to a vigil in my neighborhood, and it was really, really cold, and that was the first time I'd seen any of my neighbors in a long time. And we all sat in a circle, someone brought coffee, and we were

just talking. A woman started crying, and it was really hard to not join in. And I don't know why this stuck with me, but I remember that the moon was very bright, and I remember looking at it and wondering what it must think of us right now."

We were not unaffected by ICE's presence. Our community was attacked, and we were not innocent bystanders. We did not get out of the way. We came together against Operation Metro Surge, and we made our voices heard.

We attended protests. We held vigils. We boycotted corporations and supported local businesses. We held an economic blackout and marched by the thousands in subzero temperatures. We brought hot chocolate and hard warmers to protests and taught each other how to protect against tear gas. We stood outside schools and monitored bus stops. We organized carpools and guard watches and looked in the windows of black SUVs.

We bought whistles and learned to listen for them. We knitted blue bunny and red tassel hats. We put ICE OUT posters in our windows and resistance loon stickers on our water bottles. We donated to kickstarters and food banks. We brought groceries and did laundry for those unable to leave their homes. We created online school curriculums and funded businesses that couldn't keep their doors open. We were 'Minnesota Nice,' and we supported our neighbors.

We laughed at the federal agents slipping and filmed them breaking the law. We made ruckuses outside their hotels and yelled back at them when they told us to stand down. We were passive-aggressive. We were scared. We were angry. We shared resources on what to do if you got stopped on the street and who to call if you got arrested. We did not back down.

We sang songs. We were joyful. We celebrated the diversity of our state. We created art and shared our stories. We lit candles and reposted videos. We cried for those hurt by the violence happening in our backyards. We spoke with one voice and demanded justice for them. We got Kristi Noem fired as head of the DHS. We filed over 1,000 lawsuits against ICE on the basis of civil liberty violations. We fought for our rights and for our livelihoods.

And the fight is not over yet. Over 60,000 immigrants are still being held in ICE detention nationwide. Many of those who had to leave their jobs are still struggling to afford rent and groceries. Donations are not as plentiful as they used to be. We are still scared. We are still angry. We are still reeling from the effects of Operation Metro Surge, and our city will never be the same.







No hate, no fear, ICE is not welcome here











"We sang songs. We were joyful. We celebrated the diversity of our state. We created art and shared our stories. We lit candles and re-posted videos. We cried for those hurt by the violence happening in our backyards."

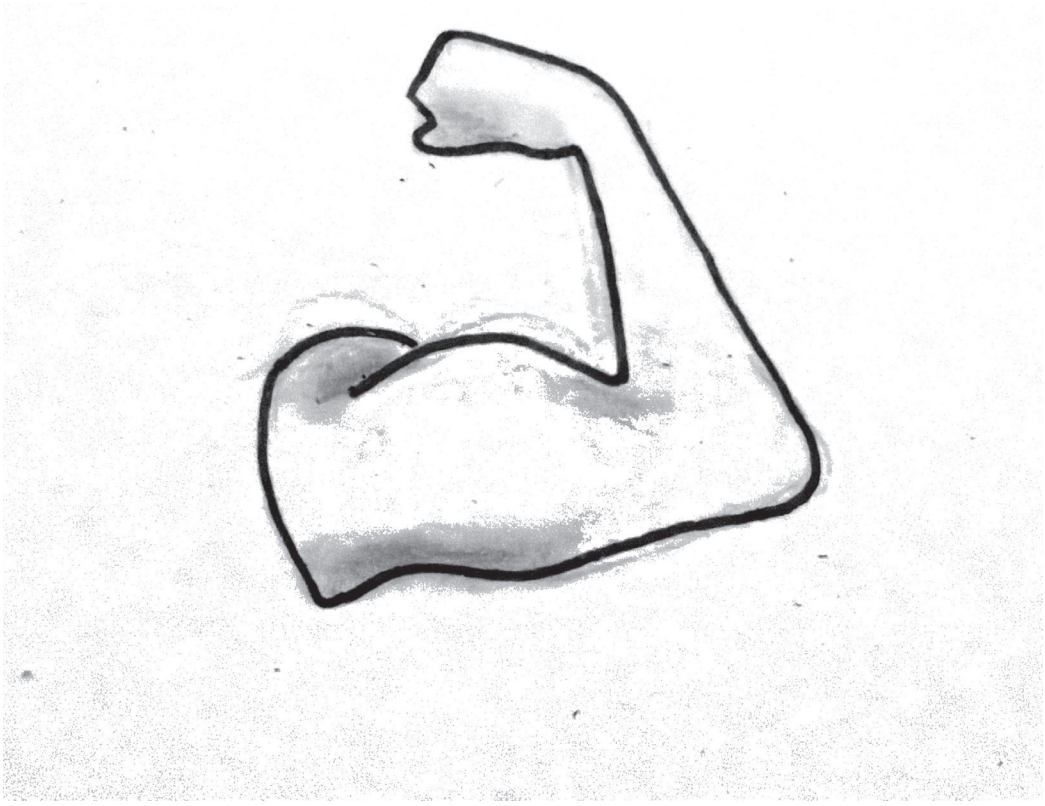
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"We made ruckuses outside their hotels and yelled back at them when they told us to stand down. We were passive-aggressive. We were scared. We were angry. We shared resources on what to do if you got stopped on the street and who to call if you got arrested. We did not back down."

Physical



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Vomissements Incessants

Author's Note: This story does not sound correct if it is not nasty, so I apologize.

Written by Wyatt Kessler

I cannot stand. The time is 1:00 AM in France, and I am in my hotel room sitting on the bathroom floor, the room lit fluorescently enough to make me even more nauseous. I repeatedly scoot to the toilet to regurgitate nothing but bile. When I stand to use the toilet, I nearly faint. I have felt dehydrated this entire time, but so much as swishing water around my mouth could make me even worse. As the nurse of the trip arrives in my room, I shakily heave my fatigued body towards the couch, the maximum amount of physical exertion I can handle. For the next two hours, I have to continuously keep myself awake and throw up in plastic bags.

The most common source of food poisoning is when a person eats food contaminated by germs. These germs can contaminate food due to a variety of reasons, commonly due to mishandling food or cross-contamination, improper heating, and improper cleaning. This makes it a necessity to be more careful with certain foods, especially raw animal products. Food poisoning isn't necessarily just poisoning or just a disease; it is more akin to a spectrum. Food poisoning can cause symptoms to occur within a few hours, while in other cases it can take days. Symptoms can last for just a day, or they can last for a week. Those who contract it commonly start to feel better 12-48 hours after symptoms are first present. Death from foodborne illness is very uncommon, but when it does occur, those with weakened immune systems are much more susceptible, as 30% of foodborne deaths happen within children under the age of 5, and the other most common age group is adults over the age of 65.

My adventure with this illness began when Noah Johnson, Bennett Vaughan-Fier, and I were roaming a narrow side street in Paris, as we looked out for different places we could explore before our free time was up. We hadn't had a lot of free time on the trip so far, and it was a choice between touring Notre Dame and some exploring around the area. We decided to enjoy most of our free time shopping, since we weren't able to in Italy. Down the street, Noah noticed a store and asked us, "Have you two seen the guy online who runs his own Shawarma shop? It always looks so good, and there's a shawarma place right there." I knew who he was talking about. I was hungry, so naturally I was interested in it. We had our quick meal, went back to the big group meeting spot, and took a bus to a new area where we grouped up with some more friends and spent our free time in a nice park. Once our free time was up, we took the bus to dinner at an interesting pizza spot.

I feel a wave of something come over me, concurrently as I step foot on the ground after the bus ride, and I have no clue what it is. I pick my seat at a table with the same friends, and I feel like I haven't slept in days. It does make a bit of sense as we have gotten minimal sleep on the trip, and I gloss over how I'm feeling since everyone is tired. After a certain point, I put my head down on the table in my arms. But when the food gets served, I know something is wrong. I don't have any desire to eat whatsoever– not even a bite, the thought alone is repulsive. So, I go back to what I've been doing and put my head down. After another serving comes out, I need to use the restroom, and when I'm done, I feel a lot better, so I keep my head up for quite a bit and let the table know I'm getting better. However, I'm still not hungry, and after a short bit riding the high of feeling normal, I'm back to where I was and worse. I've made it easy for myself to brush it off as being tired, but I can feel something now. I feel nauseous. But I haven't even eaten anything yet, so how? Pizza doesn't disgust me. I lift my head back up and look around at people eating, and I feel worse. As I look back at our table, the server is placing a pizza with mushrooms onto the table.

"My new home base is the bathroom floor, and I only get more nauseous with time."

I cannot waste another second. I have to vomit.

I put my hands over my mouth and physically stop myself like a cartoon. I jump out of my chair, and I get to the bathroom like my life depends on it. I get in, and I am lucky enough that the only stall available is unlocked. I puke as soon as I shut the stall door, and after the fact, I feel like I'll be fine, more so than last time. As I come back to the table, I feel completely normal,

nothing that I felt before, …but I'm still not hungry. We finish the rest of dinner, but I don't eat.

When a person contracts food poisoning, they cannot treat it like a cold. There's little to no medicine to treat food poisoning, and it is best to just wait it out. In fact, in most cases, trying to treat it worsens symptoms. Food poisoning is very common, affecting 48 million Americans annually. In my experience, it starts off feeling relatively normal (when you aren't puking your guts out), and you feel just a bit off. I typically felt pretty alleviated after throwing up, and once I threw up, I would become nauseated exponentially, feeling fine for a short while. No matter how alright you feel, though, you will not want to eat anything— you might feel the need to eat, but the thought of eating is the problem.

After dinner, we take a short walk to the Paris Montparnasse, a very elevated observatory of the Eiffel Tower. Before I started feeling nauseated at dinner, I had wanted to go up so I could have some nice photos of myself and my friends. I decide that I'm not feeling well enough to go up, so instead I use it as free time. I start to feel a bit weird again, and I let the chaperone know that I'm not going up to the observatory, Katerina, now. Accompanied by Wyatt Hanson, another student and friend of mine on the trip, I head to a store that, by the looks of it, is a corner drug store. As we walk inside, we immediately realize there's nothing we can read. We wait in a short line to ask if there is anything similar to Pepto Bismol, or any sort of stomachache/



nausea relief, but to no avail. We decide our next best bet is the mall nearby, and as we search around, there's close to nothing. We still cannot read anything, which is a big help. We navigate to the second floor, but it's all clothing shops and souvenir places. I'm getting a bit frustrated, since there's either been a store we've passed or there's nothing here to help. And then I feel it again.

It came on way quicker than last time. I can see a bathroom in the distance, and this time I have to sprint. I make it there on time, presumably by my own body's willpower, and I'm getting through the entrance where there's a paid turnstile.

"I don't know what to do anymore."

A paid turnstile? For a bathroom?

I motion to the employee running the turnstile that I am about to throw up on the floor if I can't go as soon as possible, but he refuses. I have to pay $1 with Apple Pay to get in, and this time I don't have to worry about the number of stalls. I bust into one, get the door slightly closed before I let it all go. Once I know I won't immediately throw up, I make sure to fully lock the stall door before I take my time doing the rest of my business. When I wrap up, there is a janitor with a mask on who heard the monstrosity and immediately walks into the stall to clean up whatever he thought was going to be in there. I walked out of the bathroom, and Wyatt kindly bought me some water. I text Katerina what happened, and we make our way back to the observatory.

After about 20 minutes of resting outside the observatory, I go inside and sit on the stairs inside the base of the observatory, talking with the trip Nurse, Colleen. The first thing she has to assume is that it's my peanut allergy, which could be fatal. She lists what it could be and recommends I eat and drink nothing. When she asks what I ate and if it had any peanuts, it clicks. It was the shawarma. I don't know how I didn't realize it any sooner. It tasted a bit funny, the cooking area inside seemed a bit dirty, and these symptoms took place not too long but not immediately after I ate. I insist that it was the shawarma. I insist that I have food poisoning. I call my mom, and she agrees that I have never had these symptoms with peanuts. But it is simply the procedure, and nurse Colleen's best bet is to first assume I ate peanuts. As I'm walking down the stairs, I don't feel a strong wave of anything come over me, but I know

what's coming, and I let Colleen know. I look for the bathroom, but to no avail, so we ask the front desk people where the bathrooms are. As we're asking, I can feel it more with every second, as the desk people reply saying "No Bathroom".

What?

"I cannot waste another second. I have to vomit."

As they say that, I know I only have mere seconds to find somewhere to puke. There are no bathrooms. There are no garbage cans. Nothing. I'm frantically running around until I accept my fate and lean against a corner of an elevator hall.

The same hall where students are exiting the elevator, coming down from the top of the observatory.

Before I puke nothing but water, they jokingly ask, "You good, bro?" But as they see what's happening, they run out of the hall. I don't know what to do anymore. I finish and walk outside.

I'm sitting outside as our tour guides discuss with the front desk people about what happened. All I can do is think. I know what I have. I understand that it's a cycle that I cannot stop. How can I wake up at 5 am tomorrow morning to fly to Madrid if it's 10 PM right now? My friends comfort me as I take the earliest bus back to our hotel. I throw up about 3 times on the 20-minute ride back. As I get to the hotel elevator, a student apologizes and expresses her sympathy, and I thank her, but as the elevator door closes, I know she can hear me throw up again loud and clear. I get to the hotel room, and the trip staff decides it's best if I don't share a room with my roommate, Arthur Madsen, so he promptly leaves, and Colleen leaves me with throw-up bags.

I only get worse. My new home base is the bathroom floor, and I only get more nauseous with time. I can feel the lack of anything in my stomach, but I feel the urge to let it out every 5 minutes. When the trip nurse seats me on the hotel couch, she realizes I need more help. She and the higher-ups of the trip call a hospital nurse, and when he arrives, he assesses my situation. He briefly talks with our main trip advisor before selecting two needles from his bag and administering them both into the lower right side of my stomach. Shots are a rare occurrence, but in severe cases of food poisoning/nausea, they will resort to using drugs like ondansetron or promethazine to relieve symptoms. Once the process is over, everyone leaves the room, and I can get some rest, and I sleep for around 9 hours, making it 2 pm. I answer all the heartfelt texts from my friends, and I call my parents. After a day of resting, I fly to Madrid, and while I still don't have the greatest appetite, everything else has subsided.

In my experience, the solution to food poisoning lies in a person's precaution. If you store the food as recommended, handle it with care and clean hands, cook the food at the correct temperature, and keep it in a safe place after, food poisoning will likely be the last of your worries. In my case, unless I chose not to eat there, it was out of my control. I feel like my experience was different, especially because the severity of my food poisoning was absolutely above average, on top of the fact that I was in an entirely different country. The awful feeling, combined with the fact that I couldn't read signs or medications, as well as not understanding anyone local trying to talk to me. I'm sure this has happened to other people, but everything considered, this is an insanely unique thing that I could only expect an extremely small fraction of people to have experienced. On the side of prevention, it could have lain in the hands (literally) of the employees at the shawarma place. Even considering their control over the food, there's still a chance it may not have been preventable. I do everything in my control to prevent this from recurring nowadays, now that I know what it feels like to have it.

Don't let it happen to you.



One O Eight Pyrexia

Author's Note: The following is a true story about one of the worst fevers my body went through. I wrote this story from what I could remember with supporting details from my grandma and father.

Written by Isiah Molina

December 13th, 2019, I woke up sick. I mean, I already knew it was coming due to my itchy throat the day before. So I tell my grandma that I won't be going to school today, pop a couple of cherry cough drops to soothe my throat, take an ibuprofen, and go back to sleep. Not even 2 hours later, I would wake up again, and this time I was SICK and not sick. There's really a big difference between the two, in which being sick meant I could still function and do stuff, but would maybe over exaggerate it to stay home from school. While SICK meant I was incapacitated and was going to die. So I got up and went back to my grandma and told her I needed to go to the doctor, but as soon as I opened my mouth, I knew this time it was different. My throat felt like a bunch of little razor blades running through it, and it was extremely dry. My grandma and dad would take me to urgent care, and I would get diagnosed with the flu, which wasn't anything new to me, as I had gotten it twice in December of last year. All the doctor told us was to get some rest and take your standard over-the-counter medicine.

Influenza, or the flu, is a virus that comes from the H1N1 strain and is relatively common in today's world. This virus thrives in cold weather and according to the Mayo Clinic, the influenza season lasts from October all the way to May in the Northern Hemisphere. Commonly confused with a cold, there is a big difference between the two, as the flu is fast and hard, and a cold is more gradual and builds up. Influenza mainly travels through the air in droplets from other infected people. Despite having a scary form of spreading, it has a relatively low mortality rate, lying around 0.5% to 1%. Usually the flu kills through the development of more serious complications, such as pneumonia or worsening other chronic conditions someone might have.

Being under 8 layers of blankets with no appetite makes a week go by fast. And while my sickness is killing me, I can only say to myself that Christmas is arriving and everyone else is having a fun winter break, while I am sitting inside slowly withering away. I had never been sick this severely before and for this long. I mean, sure, in the past it was two or four days at most, but seven days? I mean, my body felt like I was run over, while my nose currently needs a plumbing job due to how clogged it is, and my throat had gone so bad to the point where it hurt for me to even say words. My grandma, being my main caretaker, checks my temperature, and I'm at 104. This was my new highest fever ever, and no amount of blankets was enough to make me stop shivering. I take ibuprofen with a dry saltine cracker and start doing an alternation of it with Tylenol too, as they both can be taken every four hours. Basically, how this would work was every 3-4 hour interval I'd take either an ibuprofen or Tylenol pill, and then the next interval I would take the one I didn't. This ensures that throughout the whole day, your medicine will be at peak effect. My fever has reduced, and I can only hope that I'll be better before Christmas Day.

"She was always there keeping me on top of my illness every day, even when I physically couldn't."

Fever is the body's way of fighting off infection as germs in the body struggle to survive at higher temperatures. Chills and shivering are the most common fever symptoms, and they are actually there to raise body heat. Your body aches and is tired because your immune system releases inflammatory chemicals that cause muscle aches. Fatigue occurs because your body is fueling that immune response. Fevers can be split into three categories: low grade, moderate grade, and high grade. You are considered to have a low-grade fever if your body temperature is 99.1F to 100.4F. At this range, your body is most likely fighting a mild infection, and it's usually caused by really minor viruses such as a cold. A moderate fever lies in the range of 102.3F and 103.9F meaning your body is definitely fighting something noticeable, such as Influenza or COVID-19. A high-grade fever is anything above a 104F and requires medical attention due to potential organ failure. Anything above a 106.7F is considered hyperpyrexia, and you are at serious risk of brain dysfunction and even

death. You can tell a fever is done when you get super hot and sweaty, meaning it broke.

It's the night of Christmas Eve, and I am somehow still sick. I missed our family gathering and would have to wait to open family gifts. Yeah, this sucks, and it felt like somehow it was only still getting worse that night. Going to bed early wasn't a common thing for me, but this time it was, so being in bed by 7 pm would mean beginning my night early. By 9 pm, I would be interrupted by my grandma to take my temperature and check on me. I hear the very faint beep of the thermometer, and my grandma immediately calls for my dad. Now I didn't know what was going on, and I couldn't even make sense of it. My body had been roadkill this entire time. Delirium had clearly kicked in, and my grandma just looked like a sleep paralysis figure, and I'd fall back asleep. To only be woken up shortly after by my grandma, and in my mind, I can only tell it's her from her voice, because my brain was playing tricks on my sight. My dad was in the other room calling the nurse line, and when I finally could get a grasp of my surroundings, my grandma would give me an ibuprofen and tell me that my fever was 108. At the time, I didn't even know what was considered a high fever until I heard that an ambulance might be called. Since it was the holidays, they couldn't just bring me in late to the doctors. My grandma, for the rest of the night, would do everything in her power to reduce the fever. First interval: I wake up at 12 am, and my grandma hands me a Tylenol, cold water, and a clammy, damp towel for my neck. She checks my temperature, and it's really high, being 107. She tells me to go back to bed, and I do after chugging my water like an old man in a nursing home. Second interval: I woke up at who knows what time, and I had been shot in the liver, left in the trenches, and felt rain pouring on me. My fellow soldiers would leave me behind as the opposing side took our territory. I would put my arm out, thinking that I had died and a medic wasn't going to save me. Then my grandma would come into the room after who knows how long, and I'd finally snap out of my fever dream. She would give me ibuprofen, cold water, and a new, damp towel. She checked my temperature, and it was still 107. Third Interval: I can actually make up my surroundings; it's 4 am, and I can make up my actual surroundings and environment. My body covered in sweat, surprisingly didn't hurt anymore, and the only off-putting thing was that every sound around me was faster. This is a harmless phenomenon called tachysensia, and the clock in my room was ticking faster, my fan was higher-pitched, and the TV I could hear was also faster. I'd fall back to bed and be awakened by my grandma to give me the usual and a temperature check. 100F she shows, with relief, and I'd stand up, do a stretch after being basically paralyzed for two weeks, and that feeling of being cleansed kicked in. I was euphoric, and my body had never felt better. I'd won.



Approaching seven years on this story makes me realize the importance of staying on top of medicine during any illness. Ibuprofen and Tylenol are both painkillers, so you probably wonder why they reduce fevers. Well, think of your brain as a thermostat for your whole body, and when you get sick, it will crank up. Ibuprofen uses your liver and reduces a fever by blocking the chemicals sent from your immune system that trigger a fever. Tylenol uses your heart and just resets your central nervous system to reduce a fever. Obviously, without these medicines, my body could've suffered severe organ damage, or I might've even died. I mean, if I had this battle and I was middle-aged, who knows what would've happened. I remember some days when I was too fatigued and sore to even move. Though without my grandma to even administer that medicine every day and such, I would've definitely had an ambulance called on me. She was always there keeping me on top of my illness every day, even when I physically couldn't. This event doesn't haunt me or anything, and if anything, I like thinking about it when I am sick. As I know, whatever my body is going through me, myself, and my grandma will get through it.



Scratch Scratch

Author's Note: This story is about my personal experience dealing with eczema, a chronic skin disease, discussing the way that the habit of scratching is similar to addiction and the way the brain works with addiction and quick fixes. In order to write this story, I had to do a lot of research on habits, which has a lot of overlap with research on addiction and drug use. While these topics do have some overlap, this story is in no way saying that scratching is equal to a self-harming addiction like drugs or alcohol.

Written by Connie Van Genderen

"The children were snuggled all warm in their beds, while visions of sugar plums danced in their heads." For me, this rhyme goes: Sleeping soundly peacefully, Connie was unaware of the pain of her self-caused errors.

Waking up, the first thing I felt was the pain. I could tell that I had done it again and that today was already going to suck. The usual pink rashes on my arms had been scratched so deeply that they were bleeding, staining my blankets. I tried to pull myself down from my bunk bed, but bending my arms caused them to burn. Every bend or movement set off another sting of pain, and when I made it to the floor, I started to cry. When is this going to be over? When will I wake up without the pain? I'm going to have to put that damn cream on again. Why do I keep doing this? "Honey?" My mom said as she opened the door. She looked at me and pulled me into a hug on the floor. She held me like that for a while.

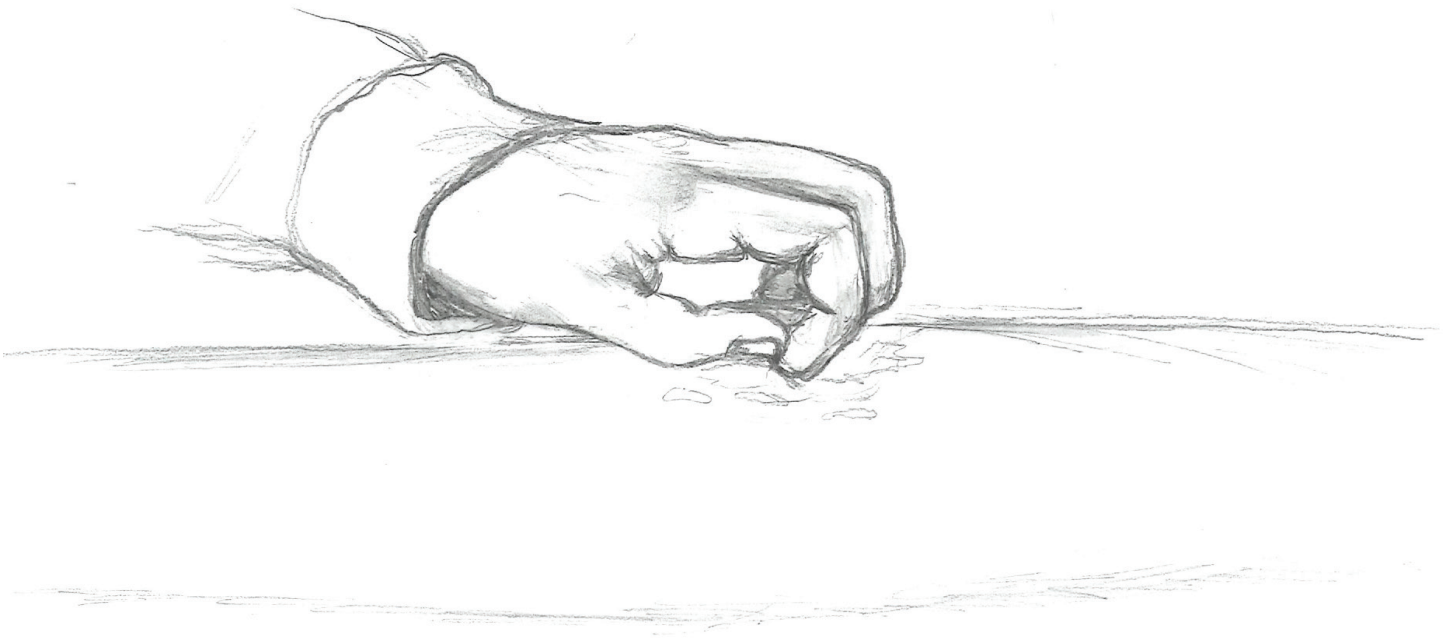
I've had eczema since I was a baby, little irritated spots on my arms that most babies get. My parents thought at first it was just rashes, not that those rashes would go on to be in every picture, family photo, or video. Or that I would be getting questions like "are you okay? It just looks so painful," from strangers with pitiful looks, and "are you sure?"

My symptoms made it very obvious that I was dealing with eczema, a chronic, incurable skin condition that causes skin to become red, inflamed, burn and itchy. One in five children, and one in ten adults, are affected by eczema according to the British National Eczema Society. And in the US, 31 million people are living with eczema. Eczema often appears on hands, the bends on arms, behind the knees, and on the face and neck. Its giveaway sign has always been the rashes that it causes, and even though eczema has been around for a very long time, its cause is not known. There are varying theories about its causes: allergies, sensitive skin, or even the weather, but the answer is different for everyone. While there are steroids for eczema like Mildison, Elocon, and Ultravate, according to the National Institute of Health only 50% of people with eczema use them. In addition, many healthcare providers vary in how they instruct people to use these steroids, and the information given to users isn't universal. Even

"I'm going to have to put that damn cream on again."

with the use of steroids, according to the American National Eczema Association, only 45% of people with eczema say that they are in control of the disease. While eczema can be kept under control by close attention to keeping your skin hydrated and "not touching it," it's not that easy.

Eczema can be deceiving, as it can affect the mind just as much as it affects the skin. This is because one of the most hallmark symptoms of eczema is the uncontrollable itching. However, there wasn't much research about this strange symptom until recently. "We had a very limited understanding of the mechanisms of neural transmission of itch. People did not understand that the itch itself is a disease. It is very difficult to get money to support your research when no one believes you are studying a real disease." Said Dr. Brian Kim, professor of dermatology at Mount Sinai University. The cause of eczema was chummed up to the complexity of the immune system, but, in recent years, much more research has been done on the psychology of the scratch and its cycle. It all begins with nerve fibers in the skin that are activated by the release of cytokines because of the defective skin layer and send itchy signals to the brain. The brain then responds by telling the hand to scratch, which sends a smiley-yay-yay-everything-is-great relief response. That initial scratch just makes it worse, fueling the itch the scratch was responding to, trapping you in a circle of itching. Once the feeling of reward fades, you get to the point where many people



realize what they've done.

The reality is that my case of eczema isn't that bad, the habits that came with it were though. There would be weeks or months where it got better, and the itch went away, but my scratching habits stayed, and the eczema would return.

My parents decorated our bathroom shelves with different creams and rubs. I tried going dairy-free, no gluten, I used CeraVe, Eucerin, marin—I even took baths with oatmeal. But my scratching never saw any improvement. My parents were dedicated to finding a solution, to say the least, but I never really cared that much myself. Like many others, I had been dealing with it my whole life. I didn't see it as much of a problem or annoying at all, just another thing about myself. The scratching was painful, sure, but was all this effort worth it? "I'll be fine if I have to deal with this for the rest of my life." Maybe I was lying to myself a little, because I really didn't want my parents' suspicions to be right, that my symptoms were from a gluten allergy, just as my brother was recently diagnosed with. They finally came through on their threats one day and took me to the doctor.

The drive to the nutritionist—we call him the poop doctor—took a good half hour and on the way there my mom lectured me about all the "good things" about being gluten free, "We still have chocolate, and those good Trader Joe's muffins, I'll pick us up some of those. It's not all bad," she said, but I sat there quietly. There's nothing she could have said, or enough chocolate to bribe me with, to have convinced me that being gluten-free would not be the worst thing ever. Besides, I had just been really getting into buttered toast for breakfast.

After the consultation was over, the nutritionist sent us home with a little at-home allergy kit, where you have to poke your finger, drop some blood down on a sheet of paper, and mail it back to them. No one told me I would have to prick my finger. I crossed my arms and sat down at the table with the test there waiting. "Come on, honey, it'll be quick!" My mom said, "I promise you won't even feel it," and my dad said as he opened the test. "Fine." I got up and did a few jumps and spins, stuck my finger out, and pressed the button to prick it. "Oh, that wasn't that bad."

A few weeks after the appointment, we went in for our results. Same thing, checked in with the lady at the front desk, and went to wait for the doctor. He came in, sat down, and handed me a deceivingly cheerful and colorful chart. There were about 50 different lit-

tle bars, most green and a few bright red. “So, as we can see, your gluten reactions are allergy level.” I know this wasn’t unexpected, but I was still hoping that it wouldn’t be true. 7th grade me thought it was the end of ever liking food again.

Cutting out the gluten did help; I can’t deny that. But my habits were the same as always, and I still scratched without realizing it, especially at night. The well-worn neural pathways that responded to the itch formed such a strong subconscious scratching reaction that I still scratched without the itch, even though I could notice that I was scratching and that I didn’t want to scratch, I couldn’t help it.

“The positive reinforcement of it all, and the feeling of winning life over death and fear, is what made us so inclined to stick to what works.”

We all have our own habits, they’re like the grooves in the snow on ski trails, and fighting them can feel like trying to get out of your warm cozy bed when you wake up: easy to get into, challenging to leave and just love to stick around like a catchy song. The amygdala and hippocampus control these habits. The system processes emotional info, connecting memories to emotions that your brain encounters through your day, and signals your subconscious habits. The amygdala works with the hippocampus by constantly searching for threats and activating responses, based on who you are and your social habits, before you think about what to respond. Your nerves pick up signals from throughout your body that are processed in your brain.

But these systems aren’t perfect and can create harmful habits. Some signals, could be stress or pain, a conversation with an unfamiliar person, or a tense topic, send you right down that familiar road again. These habits could also be linked to settings, like how a dancer backstage stands tall because they know they’re about to be on. And with eczema, “Emotional states such as stress, anxiety and mood changes can affect the skin-inflammation-nerve-brain axis. For example, they can aggravate itch in AD by damaging the skin barrier, increasing inflammation and increasing nerve sensitivity,” according to Dr. Yosipovitch. And getting positive feedback can only reinforce these habits and make you sink deeper into it as an unconscious decision.

Habits and subconscious decisions were once meant to keep us alive. If looking down while walking to watch out for snakes keeps you from stepping on them, it makes sense to do that again. Except the reward was just not dying. That fear of breaking the habit makes it even harder to look up. The positive reinforcement of it all, and the feeling of winning life over death and fear, is what made us so inclined to stick to what works. Today, things have changed from the time when habits kept us alive and habits have become a struggle for many. These new-world habits can be responses to more complex problems than they were designed for. Maybe it’s the fear of leaving something you know makes the pain go away, or makes you happy, even when you know it’s bad for you, like drugs, cigarettes or alcohol. Habits have become a nuisance. Phones are a good example, and even though we know they aren’t great, we end up choosing these items again and again because they’re an escape that makes us feel better in the moment.

Research on habits will continue, and solutions will be found to tackle bad habits. According to the NIH, there is some research exploring potential medications for bad habits that can help disrupt subconscious behavior and might make it easier to form new habits, and even some genetic research on what makes some people easily form and get rid of habits. It’s very possible that a cure to eczema or something to help break habits might be right around the corner. This could help legions of people with bad habits, like addiction or chronic lateness. But it’s good to keep in mind that not all habits are bad, a lot of them are still beneficial, and these “miracle medications” could cause adverse effects on people’s daily habits that we don’t think about, such as brushing your teeth or locking the door.

In the meantime, I’ll still be working on my scratching habits. After so many years, I’d like to say that it has stopped annoying me, and it mostly has, but I’ve developed a neutral stance on my eczema. Making progress and then losing it always sucks, but like many others, I’ve learned to deal with it. It’s become just another part of my morning routine. Life would be easier without it, but it’s not a lot of pain or work anymore. Maybe I’m more okay with it because it calmed down, or I’ve just become more comfortable with the pain; it’s hard to tell. But either way, I’m doing okay. I must say, it does help when my friends and family add a quick “stop scratching” to the middle of our convos, even if I pout after.



Palpatating Heart

Editor's Note: This story is about Kai's personal experience with heart palpitations while mountain biking. He explains how his condition feels and the details of his treatment plan.

Written by Kai Walker

It was my second day of racing at Englewood Farms in rural Wisconsin. I rode the 15-16 UCI race the day before and had placed 31st, which I was pleased with for the start of the season. I rode through the start/finish line into my second lap and into a small climb covered by a small patch of trees. I was making my way up the short climb to the long drag, where the feed zone was placed, and I would take a gel. I rode on my teammate's wheel while finishing the climb. I could feel that I was settling into the pace well, my legs were feeling great, and I felt I was going to be able to ride a good race.

Suddenly, while exiting the small patch of trees right before the two turns into the long drag, my heart fluttered. It felt like it beat 100 times in a second. My heart continued to race, it was hard to breathe, and it felt like I was completely out of control of my heart. I made the conscious choice to stop and try to bring my heart rate down with deep breaths. While taking a deep breath to calm my heart down, I looked down at my computer, and I saw 230 bpm, an outrageous number: a general rule for any person's max heart rate is that it should be 220 minus your age. My heart was beating like crazy, and it didn't seem like the breathing helped at all. Since I was so close to the feed zone, I slowly pedalled the 100 feet to my parents, where I could get off my bike and try to figure out what was going on. My mother didn't realize that there was something wrong when I got to her. After I collapsed off of my bike, she kept trying to get me back on and to get me to take the gel. She finally realized there wasn't anything wrong with the bike, but I was physically unable to race, and I could tell. My heart was out of control, and it wasn't getting to a place where it was. I continued to try to bring my heart rate down, but I couldn't get it to an acceptable resting heart rate (less than 90). I officially pulled out of the race, and by this time my heart was still skipping and jumping around, but no longer at the high rate it was during the race.

When I finally got off the course, I went back to the team tent, laid down, and cried. I was so confused and still felt incredibly uncomfortable from the shock of the heart palpitations. I drank some cold water and tried to relax, but I still had an elevated and skipping heartbeat even while trying to bring it down. My parents wanted to get me checked out at the medical tent, so I went, but nothing was found and I was released to go back home. After the 4-hour drive with a Dairy Queen stop, I was able to take a shower and reset my body, finally able to relax and sleep.

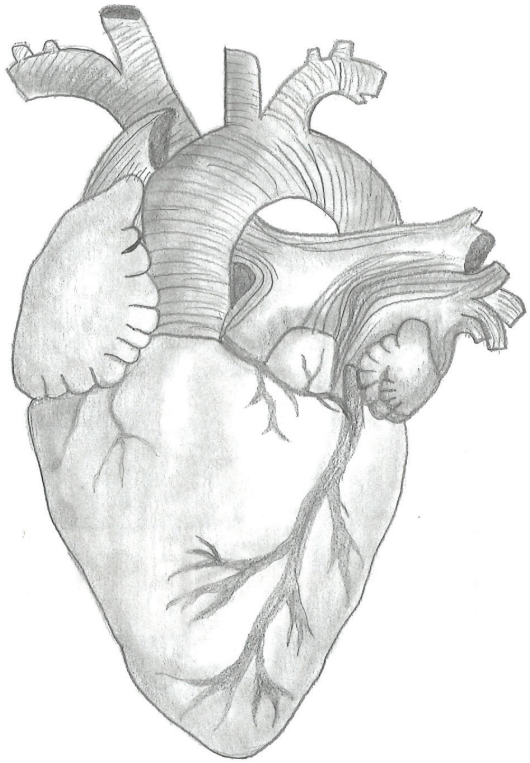
While racing a cross-country mountain bike race, you put your body through an immense load of stress that can be measured by TSS, which stands for training stress score. The analytic was created by Dr. Andrew Coggan and Hunter Allenis in 2003 and is trademarked by Training Peaks, a digital platform commonly used by endurance athletes to plan, track, and analyze their training data. TSS is a number that is calculated by comparing your data, like duration (time) and intensity (heart rate in bpm and power in watts) from a workout or race, and uses the athlete's FTP (functional threshold power) as a baseline to give a score that can help to quantify the effort. Heart rate and power is quantified in 5 zones, and while racing cross country mountain bike, you will often find a rider in zone 4, and at or above their FTP, which is a normal thing for an endurance athlete.

I went through multiple rounds of testing to try to diagnose whatever was causing my heart palpitations. I first went to my doctor, got my blood drawn, and did a regular checkup. When I got my results back, and it was all normal, nothing to explain the palpitations. I also got an Electrocardiogram, commonly known as an EKG. The procedure attached multiple recording patches to my torso and monitored my resting heart rate. My resting heart rate was normal, and there were no signs of any kind of heart problems for my age. I then did a longer test with a heart stopper, which is a heart rate monitor that is stuck onto your chest, and after a week, it is removed and sent back to a lab to be studied. The glue on the monitor failed (due to heavy sweating), and I only got three days of data instead of the planned week. I sent it into the lab, and I got yet another result that indicated that nothing was wrong.

I went back to racing and was training completely normally. I had written off the problem as coincidence, and it wasn't present in my mind. It wasn't until

mid-summer that I was tested using an echocardiogram, which is basically an x-ray of the heart. The x-ray was so hard to get scheduled because of the lack of appointments and qualified doctors. It was at a small doctor's office about twenty-five minutes out of the Twin Cities. It turned out to be an office that served mostly seniors. While walking in as a 16-year-old teenager, I felt out of place and somewhat humiliated. The doctor walked me back to a room towards the back of the building. The doctor had me remove my shirt, and I was x-rayed using a handheld device that was applied using a gel that was uncomfortably cold to the touch. After the ten-minute x-ray in which I had to roll to each side, I had to wipe all of the gel off and put my shirt back on and wait for the x-rays to be transferred to my health care providers. The results of this test came back exactly as the others; the test "indicated nothing was wrong." I ended up riding my entire summer season into early August without any heart-related issues like the one I had experienced in Englewood.

It wasn't until my first high school race of the season in August that I had another case of heart palpitations. The course was called Schindler's Way and was located in Austin, Minnesota, home of the Spam museum. The course was monotonously flat with long turns and was known for being boring and uneventful for the racer. Since there was flooding on the lower parts of the course, the length of the lap was shortened, but the number of laps was increased. I had a bad call-up for the race; I was in the third row in the grid. I was hoping for a strong start to the high school season to get some points to increase my call-up to where I should be. I had a great start, making up a couple of spots, and found a strong group quickly. After a lap of singletrack, we made it out to the long drags before and after the start/finish line. I took a pull and was feeling good, and when I glanced at my computer and saw my power looking strong as well. We entered the singletrack and began settling into a strong pace. We were about to take a right turn out of the singletrack into an open drag with a 180-degree turn. I was 50 feet away from the exit into the drag when suddenly my heart jumped. It was the same feeling I had in Englewood; I could feel it flutter out of control. I coasted out to the drag and pulled off to the side, letting my competitors pass me by. I tried a vasovagal maneuver, which is a movement where you bear down, flexing your abdominal muscles, and breathe out forcefully to activate your vagal nerve, which can lower your heart rate forcefully. The doctor had taught me the simple maneuver, but I hadn't had to use it all summer. The maneuver didn't work extremely well, but this time I knew what was going on and what to expect, and I was calmer than last time. Even as I was questioned by other riders, spectators, and officials, I kept my head level and didn't freak out the way I did at Englewood.



While racing, you will find yourself pushing to your max heart rate and sometimes, in my case, above it. While my heart palpitations were not normal, there is a sparse amount of research about heart-related problems specifically for endurance athletes. A study that has been done by The National Library of Medicine, which consults research that shows that endurance athletes are at a high risk of certain adaptations made to the body while under a heavy aerobic workload. The adaptation that was found to be made by the body during the study was atrial fibrillation, which is sometimes called 'afib', is the most prevalent type of heart arrhythmia (abnormal heart rhythm) and causes an irregular, and often rapid, heartbeat, according to the University of Michigan Health. While in my case, Atrial Fibrillation is ruled out by monitors and tests, there is a possibility that my body has made some kind of adaptation that compensated for the high stress level during heavy training and grueling races.

I very recently took the next step to diagnose, which is a long-term monitor called a loop recorder. My moth-

er described the device as a "heart monitor that goes underneath the skin instead of sticking to the outside of the skin like most other monitors," which is why it required a surgical operation. To explain its purpose, it is "a very small device, and it monitors not just the heart rate, but several other things in the heart like how the valves are working and how the electricity is working in the heart." A loop recorder is a better chance for the doctors to catch a heart palpitation and figure out what it is.

To implant the device, I had to go into surgery. The preparation for the surgery started a week before the actual surgery with a pre-operation examination. This examination was just a normal checkup like you would get when going to the doctor. After this, but before I even got to the hospital, I had to have my last meal by eight the night before, and I wasn't allowed to ingest any kind of fluid for four hours before the operation because of the chance for aspiration. When I got to the hospital, I first had to check in and was called to the prep room, where I could use the bathroom for the last time and put on a hospital-provided gown and socks. I was visited by an array of nurses and doctors. The first nurse got me situated and inserted an IV into my hand. I was then visited by my surgeon and anesthesiologist. My surgeon explained the operation again and my anesthesiologist explained what type of anesthesia they were using, which went into one ear and quickly out the next. After all of the visits and the IV in my hand, I wanted to move around before going into surgery. I stood up but was immediately met with stars and blood rushing to my head. I sat down immediately, trying not to pass out. With the sudden flash, I got hot and sweaty, and one of the nurses turned on a fan, pointing it directly into my gown to cool me off. I still felt uneasy, but I was much more comfortable and had stopped sweating. All of the preparation was complete, and a swarm of nurses entered the prep room where I was laying down. One of the nurses, wearing a surgical mask and with nice brown eyes, asked what kind of music I wanted in the operating room before I would go under anesthesia. I was a little surprised that I would be able to pick music. I quickly decided on Frank Ocean purely because of the slow, relaxing tendencies in his music. After I chose my music, I was wheeled in my bed into the operating room. At this point, the anesthesia started to kick in, and my memory became very fuzzy. On the first glimpse of the operating room, it was very brightly lit with white walls. I don't even remember the music or what was said to me right before the surgery.

The surgery went smoothly without any complications. It took only fifteen minutes for my surgeon to make the incision and insert the two inch by a quarter-inch wide, pill shaped, monitor into my chest. Instead of stitching the small incision the surgeon applied an inch and a half wide circle of medical glue. I don't even remember the first couple of minutes waking up from the anesthesia. I was told it took me about an hour to wake up from the anesthesia, and my "eyes fluttered and I sat straight up," requiring the nurses attending to me to push me back down into the bed. I soon came to consciousness with my mother standing next to me, taking notes as the doctor explained what I should and should not do proceeding the operation. He said I "was allowed to eat and drink" as well as "take showers but not submerge my chest to take a bath or swim." Still feeling somewhat disoriented, I went to the bathroom and was pushed in a wheelchair to the parking ramp where my mother pulled around with car. This was extremely unnecessary for me and my condition, but since it was hospital policy, I didn't have a choice in the matter. We drove out of the underground parking garage and decided on poke for a late lunch. I ordered myself a tuna bowl and a mango boba, and we picked it up and ate it at home on the couch in front of the television. I could feel the monitor whenever I moved my arm, and after a couple of days, the skin around the incision had bruised. I couldn't sleep facing downwards because of the uncomfortable feeling of the monitor and the bruising. I went straight back to training, doing a sixty mile endurance ride that weekend, and went to the gym with my teammates. I barely even notice the monitor now unless I'm looking at it or I extend my arm all the way up, stretching the muscle and skin in my chest.

Even with all of the tests and monitors that I have completed, nothing has led to any kind of diagnosis. The final step I can take is an electrophysiology study that could be done to diagnose whatever is going on. The study uses a small catheter that is inserted through your leg and travels through your veins to your heart, where it can be used to examine your heart, its valves, as well as its electrical activity. There could also be nothing wrong with my body, and I simply pushed too hard or too long during those races. I am hopeful to find the solution to my problem and to be able to ride, train, and race without the idea that my heart could suddenly malfunction looming over my mind.



Fractured

Author's Note: This story is about the most recent stress fracture that I sustained at the beginning of the cross-country season. My injury happened soon before the first race of the season, which I unknowingly ran in. I wrote this story through my own personal account to best explain how the events following my injury unfolded.

Written by Remy Short

It's the second lap of the course, and I'm on my way to finishing the race. My arms are pumping, I'm pushing myself to run as fast as I can, my coaches and teammates yelling and cheering as I run past them. I'm so focused on running as fast as possible that all I can see is what's directly in front of me, despite the fact that other cross-country runners are all around me as well. As I near the final stretch, I attempt to push myself even more. At this point, I am focusing less and less on my breathing and more on my form and the speed at which I'm running. Once I make it to the beginning of the final stretch, my coach yells and cheers for me to "kick it" and exhaust all of my energy into finishing the race. I peek at the clock as I finish the race, and it reads 15 minutes and however many seconds. Not the best for a two-mile, but a personal best for me nonetheless, and a good start to my first season of cross country. When I finish, I wait and cheer on my other teammates who are finishing the race, as well as runners from the other schools there, too.

After the race finishes, my team meets up, and we do our chant that we do after each meet, and I head over to reunite with my parents. Now that the race is over, the adrenaline I was experiencing dissipates, and I'm more aware of my surroundings and how my body feels. I begin to notice my legs aching, which is normal. What isn't normal is when I feel a sharp pain in the outer side of my right ankle as I walk, exactly on my fibula. I attempt to stretch it as I assume it must just be some muscle pain. Instead, I am being met with even sharper pain. While I'm in the car with my parents on our way home, I tell them about the ankle pain and demand that we schedule an appointment with a doctor at the orthopedic hospital. I'm noticing similarities to the pain I experienced when I suffered a stress fracture to my hip in my freshman year of track and field. Despite my hope that I hadn't gotten another stress fracture, I would eventually learn that I was, in fact, running on a stress fracture that would put an end to my first cross-country season after only the first race.

Stress fractures occur when the bone is put under too much stress during a weight-bearing activity like running. This can be the result of bones not being able to adapt soon enough to the repeated stress and loading from the activity; in the case of running, it's the repeated pounding of your feet on the ground. Stress fractures simply begin as stress on the bone, and if left untreated or unnoticed, eventually will progress into a full fracture. According to Onward Physical Therapy, about 50% of track and field athletes report 1or more histories of BSI (bone stress injuries), and up to 12% of cross-country and track athletes with a BSI history are reported to have continued BSI for the next 1-2 years. Additionally, stress fractures account for more than 10% of all sport-related injuries, and can be as high as 30% in running-related injuries. Symptoms of stress fractures can be found through bone tenderness, sharp pain, and also pain when running, hopping, climbing stairs, and even while resting. Thanks to this information, it's apparent that stress fractures are injuries that any athlete can sustain. Because a stress fracture is a progression of an already existing injury proves that there is significant importance of catching the injury as soon as possible and also treating it sooner rather than later.

"I feel a sharp pain in the outer side of my right ankle as I walk, exactly on my fibula."

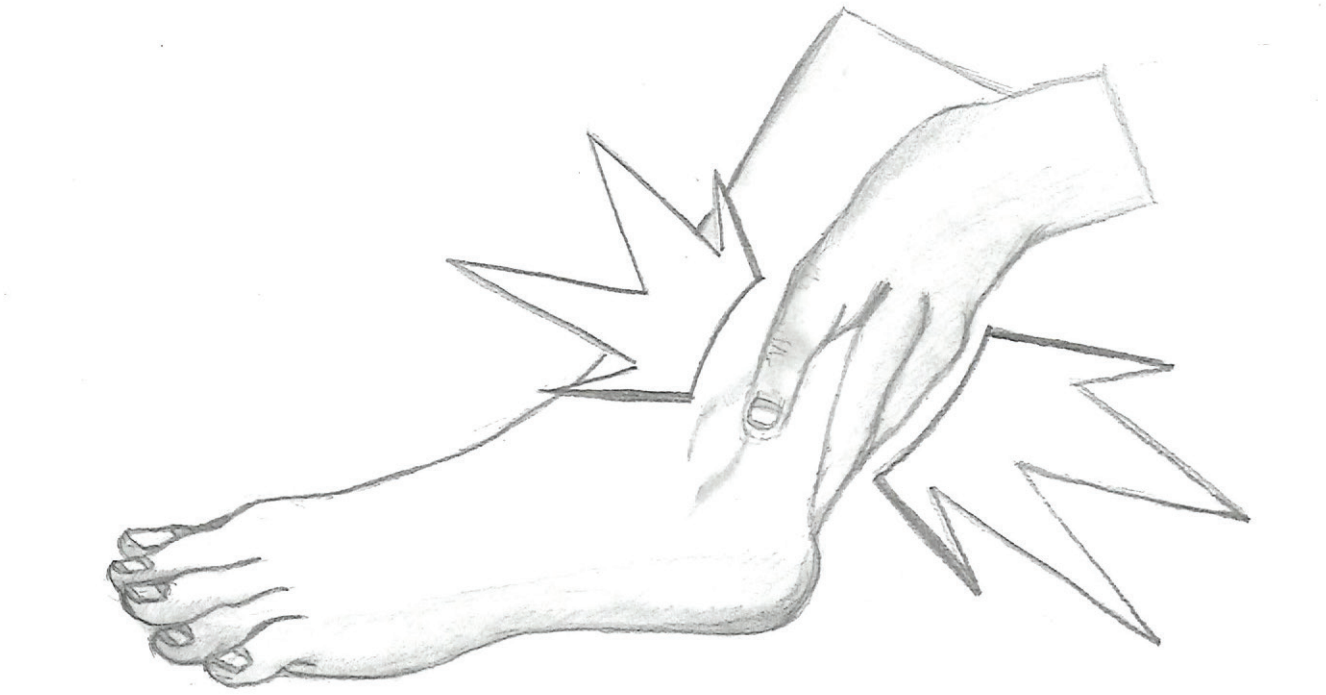
The day after the race, I'm able to book an appointment at the orthopedic doctor's office. My mom and I get in the car, and the entire ride there, I hope to myself that my ankle is just having a muscle issue. Hopefully, I just pulled a muscle that could heal quickly, so I wouldn't miss out on too much of the cross-country season. When we arrive, I anxiously check in and sit in the waiting room with my mom. It feels like an eternity when the assistant finally calls my name, and I take a deep breath before walking to the examination room she directs me to. Throughout the appointment, I explain my situation to the assistant and describe my symptoms

and the sharp pain in my ankle. The assistant asks if I've tried pressing on my ankle to locate the exact spot where the pain is, and I tell her I haven't. She presses in some areas around my ankle to determine where the pain is, and eventually, when she presses on my fibula, I pull back my ankle as the sharpest pain I've felt in my ankle since after the race strikes me. The assistant looks at me, and by the facial expression she makes, I can tell we're thinking the same thing. My fibula has fractured. After this, she lets the doctor know that I'm ready to be seen. It's the same process again, and I have to request that when he presses on my fibula, he does it gently. Despite this, the pain is still enough to cause me to react by clenching my teeth together. He sends me to the X-ray wing to receive an X-ray, and the appointment ends with me leaving the orthopedic hospital in a boot.

"It was really difficult to stay involved when I couldn't even come to watch the races since I was sentenced to limiting my walking as much as possible."

As the month goes on, my ankle pain continues to linger, and I continue to miss out on cross country. Eventually, my doctor decided that I needed to have an MRI done, which I was familiar with since I had to get one when my hip fractured during my first track season in freshman year. Unsurprisingly, the results find that there is, in fact, a fracture on my ankle, and I'm now not only in a boot but also on crutches. I'm told I'm lucky since it's just short of requiring surgery, but I have a hard time agreeing with that. I'd be luckier to be running with my friends and my team right now. Because I now have a history of stress fractures, I'm referred to Gillette's Children's Hospital to get a DEXA scan done. It's something like an X-ray or MRI, but it will help the doctors find out if there's an underlying cause to my stress fractures. The day of the scan, I'm called back, and I lie down on the machine. It's like a cot with a weird robotic appendage that circles my entire body, something straight out of a sci-fi film. Two weeks go by, and I come back to the hospital to receive my results. That's when I learned that I have low bone density for my age group, which is also known as osteopenia.

Low bone density, medically termed as osteoporosis or osteopenia, occurs when someone's bones aren't as



dense or strong as they should be. Low bone density is measured through T and Z scores, which come from the results of a Bone Densitometry/Dual-Energy X-Ray Absorptiometry Scan (DEXA or DXA). According to Lurie Children's Hospital of Chicago, the scan results of a T score diagnose osteopenia between -1.1 and -2.4, and osteoporosis -2.5 or worse. Z scores are also numbers that are found by the amount of bone density you have in comparison to other people of the same gender, weight, and age group. DEXA scans work by using a small dose of ionizing radiation to produce pictures of the inside of the bones to detect the amount of bone loss, which is similar to X-rays and MRIs. Today, DEXA scans are the most commonly used and also the most standard method of diagnosing osteoporosis and osteopenia. Interestingly, research has found that running can be beneficial in improving someone's bone density instead of being dangerous, as many would assume. According to London Bridge Orthopaedics, this is due to several factors, such as how, during exercise, your muscles pull on your bones, having a direct effect on your bone density. As you run, the majority of your muscles are being worked out, leading to more muscle strength and, in turn, more bone strength.

"It was really difficult to stay involved when I couldn't even come to watch the races since I was sentenced to limiting my walking as much as possible."

The time after being diagnosed with osteopenia and being forced to sit out of cross country proved to be a mentally difficult time for me. Running is not just a physical sport but a mental one as well, which became extremely apparent to me during the three-month time period when I was stuck in a boot and on crutches. I attempted to stay in the cross-country loop by communicating with my teammates and attending team events like the banquet at the end of the season, but it was really difficult to stay involved when I couldn't even come to watch the races since I was sentenced to limiting my walking as much as possible per my doctor's orders. It was even more difficult to see messages between my coach and teammates in the GroupMe messaging app, which served as a constant reminder that I was injured, to the point that I muted the notifications from it on my phone. These factors made me feel like I wasn't really a member of the team and affected my mental health.

Sports injuries have been found to directly impact athletes' mental health, even minor ones like sprains, to significant injuries that may require surgery, and both result in a mental and emotional toll on injured athletes. According to clinical psychologist Andrew Ahrendt, sports injuries impact any sports level and commonly result in mental impacts like depression, anxiety, and a lack of motivation. Ahrendt also notes that there are specific groups of athletes who may be more affected by an injury. One group is athletes who value their sport as a large part of their identity. The more an athlete's identity is tied to their sport, the more impactful an injury will be. In addition, younger athletes have been found to have more difficulty handling the emotional stress that comes with an injury due to the fact that sports injuries are typically some of the first serious obstacles that younger athletes face in life.

My stress fracture left me to become anxious whenever something would hurt throughout my sports seasons. I obsess over the location of the pain and try to diagnose what the injury could be, even going as far as consulting Google like it's a sports medicine doctor. It's left me hyper aware of any muscle aches, even when they simply come and go. Despite this, I am still able to find some positive outcomes of the injury I've recovered from. Today, I am able to look back on my experience with sustaining a fibula stress fracture at the start of my first cross country season in a positive light instead of a negative one. Through the injury, I learned how to cope with uncontrollable circumstances and prioritize what is best for me. In that case, it was letting myself rest and allowing my body to recover. I learned that being injured doesn't make me less of an athlete or that it is something I should feel embarrassed about, but instead that it is a natural part of being an athlete. In addition, I discovered how to better listen to my body and develop a sense for when I need to take a step back from my sports. Even though it felt like I wasn't working hard at all during my recovery, I can now acknowledge that I was working hard in a mental sense instead of a physical sense.



A Spot on the Side

Editor's Note: This story is about Anneli's experience being sidelined in the sports she plays due to her hypermobility. She explains the physical barriers she faces to playing volleyball and the mental struggle that surfaced because of it.

Written by Anneli Lofgren

It's hot. I'm cold. Everyone around me is yelling, and it mixes with the various whistles coming at random times from the 40 volleyball courts dispersed in a grid spanning across the main level of the Minneapolis Convention Center. I'm yelling the loudest, cheering my team on from the standing bench. I'm fully suited up, but I know I will not play. My hair is fully slicked back, and I know it will not be disturbed. I'm yelling the loudest because I cannot clap. I tried that already, and it hurt far too much, even with the copious amounts of ibuprofen and Tylenol running through my body, and even with half a tube of Biofreeze coating my wrists under my blue Velcro wraps.

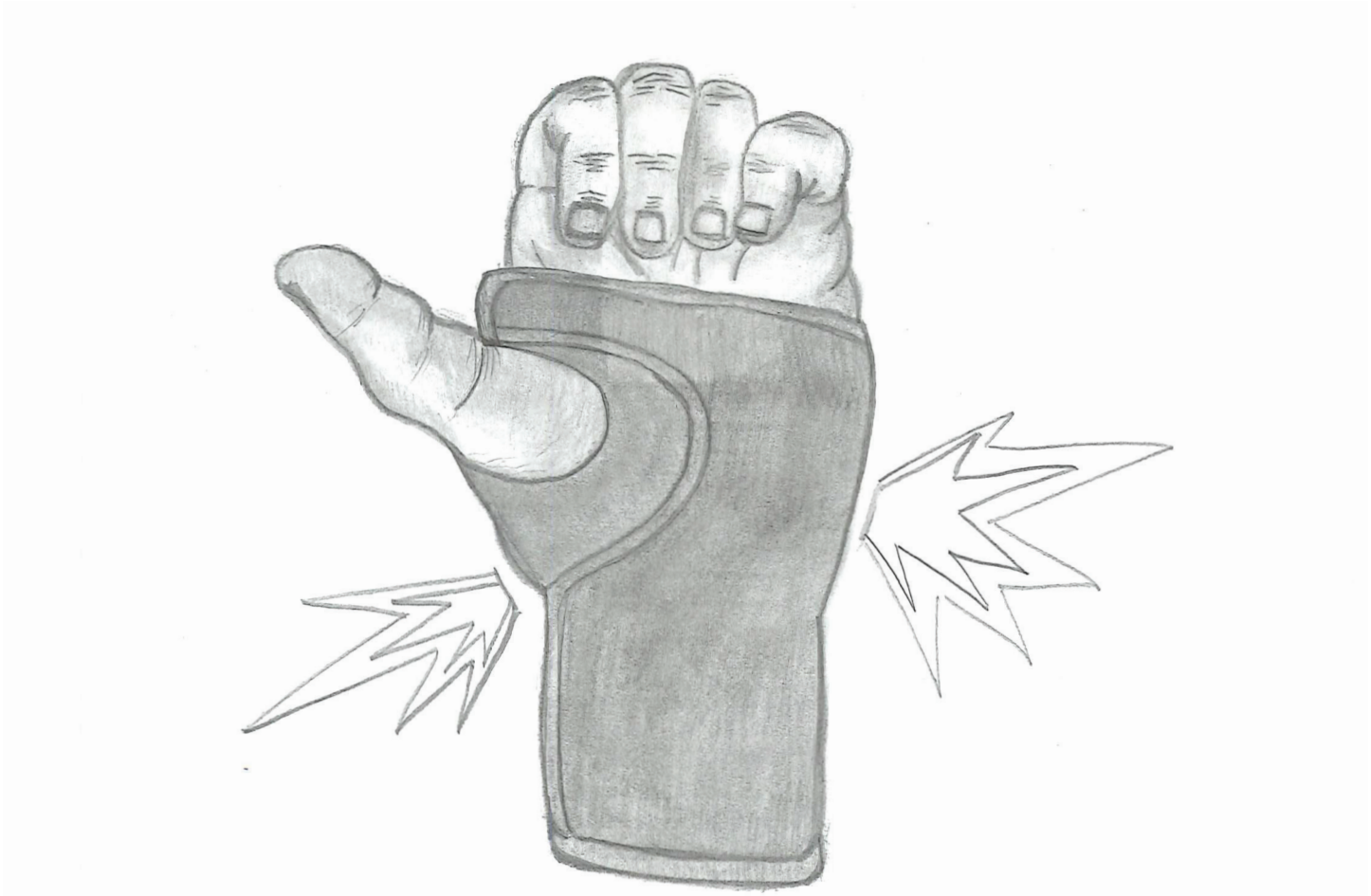
My teammates rotate on and off the bench as the set progresses, each girl sweatier than the previous. I watch their glistening foreheads while the other team is serving, and I notice how cold I am. It's 5:00 pm now, and we've been here since 11:00. We might miss the Super Bowl.

I don't mind. I call back on all the absurd cheers and celebrations running through my mind, and I put them all on display in the real world. We got a kill. I do a trust-fall into my teammate's arms. Our 14-year-old got a solo block on their dominant six-foot outside hitter. I fell to my knees before lying out on the side court because the play was exactly that exciting. I am our team's biggest cheerleader, because that is all I can be.

When I first struggled with wrist pains, I'd told my mom that it hurt to do the cartwheels, handstands, and bridges that we were practicing in gymnastics. All of these actions force wrists to extend, meaning the back of the hand is pulled toward the forearm. Deducing that wrist support could help, my mom bought blue Velcro wrist wraps, and I began wearing them in sports. After starting volleyball, I ditched the bulky wrist supports and opted for a sleeker option of pre-wrap and athletic tape, which did the trick for a while. My wrist joints would 'flare up' randomly, maybe once every month while in season, and I would have to wear the bulky wraps again. Sometimes, the pain would be too extreme for me to play, especially being a setter. During the school season, I would hide a flare-up until it became so severe that I could not even put my hands on my hips—that was too much pressure on the joints when they were so inflamed. I constantly lived with the knowledge that people knowing about my 'bad wrists' may influence their decision if I make a certain team. Every year at club volleyball tryouts, I would tape my wrists and try out for a setting position, fully knowing that there was a chance I'd miss entire weeks' worth of practice if my wrists flared up. This past club season, I made the 18-2s team as the only setter. This was a great opportunity for me to be able to play all-around, as club teams usually run a rotation with two setters that alternate. I would be in all the time. If my wrists failed me, I would fail my team. Conscious of this, I worked to strengthen the stabilizing muscles around my wrists—a tactic that makes joints more resilient. I went to a hand therapy clinic after seeing my fourth orthopedic doctor, and she showed me a better way to tape my wrists with kinesiotape, offering more support to the different joints in and around my wrists.

> *"I'm yelling the loudest because I cannot clap."*

The TRIA orthopedic doctors had determined that I was hypermobile. Being hypermobile means having joints that move past what is considered standard. According to a PubMed synthesis of many medical studies, young females are disproportionately affected by this condition, with an average of 32.5% of girls being diagnosed compared to the 18.1% of boys affected. Those with hypermobility are also significantly more likely to sustain a sports injury, because the joints are more lax and have less support. In addition to this, hypermobility can be the root of chronic pain, fatigue, headaches, and anxiety. But because the condition is severely underdiagnosed, many patients with underlying hypermobility-related pain have to wait years to experience true relief—sometimes too late for the physical and/or mental toll their injuries took. As a result, many hypermobile athletes are forced to quit the sport they love in order to preserve their bodies, many times contributing to poorer mental health conditions. If they don't quit,



many patients face future consequences of high-impact activity as they age, showing signs like higher susceptibility to sprains and dislocations, as well as early-onset arthritis. Hypermobile athletes have to make a decision relatively early on: is it worth it to do sports if it could destroy your body?

"I tried that already, and it hurt far too much, even with the copious amounts of ibuprofen and Tylenol running through my body, and even with half a tube of Biofreeze coating my wrists under my blue Velcro wraps."

I get to club practice at Murray Middle School, pausing for a moment in the car before my mom drops me off. "Can you do it, please?" I ask, offering her the six pieces of kinesiotape I'd cut in the car ride there. She has a better angle to tape my thumbs and wrists. She nods, crisscrossing two thinner pieces of tape to support my thumb joint before using the larger piece to anchor it all around my wrist. Rinse and repeat. I go in with both wrists taped, ready to warm up, but with a sinking feeling that I wouldn't be able to handset today. I chat with my coach, who's been very understanding about my inability to play in the last two tournaments, and she politely inquires if I have any idea how much longer I'd be "out."

Whenever a coach asks this, I always say the same thing. "I'm feeling a lot better! I should be fully good next week." My saying this sets a commitment that I will play next week. If my wrists aren't ready, I'll play through the pain. I'm pretty sure that's okay body-wise, because I remember TRIA orthopedic doc #2 saying that if the pain was tolerable, I could play. He seemed confident that I wouldn't cause any observable injury by playing through it. In hindsight, I think this actually directly contradicted what TRIA orthopedic doc #4 said—if I wanted the flare-up to end, I had to be patient and wait it out. I don't know, it's all a blur.

Each time I go to the doctor, it goes like this: "You have a little bit of hypermobility going on." "We can't find any physiological basis for the pain you're in, but let's take another X-Ray!" "Have you tried icing and ibuprofen?" Yes, thank you for this enlightening waste

of a $60 copay. Over the course of 4 years, ice and ibuprofen have not stopped my wrists from flaring up, or even helped the flare-up go down sooner. I need something that will work in active prevention, not a band-aid to slap on when it's at its worst. Right now, it just feels hopeless.

In a huddle before a water break at practice, my coach is talking through the lineup for the next drill we'll be doing. It's a lineup drill, meaning 6 players will be on the court in their normal positions, playing like how they would in a game. My coach makes a sly reference to my being "out" at the moment, and several of my teammates look over to me. Two of these girls come up to me later and inquire about my wrists. I spew a rather generic explanation that I'm used to giving, saying something along the lines of "the two bones in my arm separate too far at the wrist when I do this," and flexing the back of my hand toward my forearm. This is something that TRIA orthopedic doc #1 told me, but I'm not entirely sure if it's true because my diagnosis has seemed to change slightly with each visit, yet with no new solutions. I explain further by describing how I

"I would hide a flare-up until it became so severe that I could not even put my hands on my hips."

can't do pushups the standard way on flat hands, instead having to put my weight on my fists. I mentioned that I missed a week of APUSH and AP Bio notes because the wrist flicks of writing were too painful. They're really sweet, and tell me they hope it gets better soon. I feel a fast-paced wave of guilt rush over me as I think back to tryouts when I failed to disclose my 'injury-prone' nature to anyone. I wanted to get put on a team. And it's not even a real injury; it's all in my head. Maybe if I were stronger-willed, this pain wouldn't affect me. Am I weak?

When faced with injury, it's easy to fall into a deprecated mindset that feeling that pain is a character flaw—an issue of willpower—instead of accepting a sort of truth that my body was just not well-suited for a sport I love. A tolerance could be built up over time, but impact athletics would always put my body more at risk than if my joints were less lax.

Every time I set the ball, my wrists would bend backward and absorb the ball's kinetic energy. This quick and simple motion, after much repetition over months, was chipping away at the health of some of my most crucial joints.

The medical system places most of its emphasis on diagnosing and repairing things that can be visually observed—injuries and conditions where something actually goes wrong. As a result of this, patients with an underlying chronic condition are left relatively isolated to sift through a sea of conflicting or inconclusive advice. When one doctor says to play through it, and another says to let it heal, I'm left to guess and choose which advice to follow. This uncertainty makes the pain feel even less valid if medical professionals can't seem to agree on anything regarding treatment.

Going back to the question of whether doing sports is "worth it" if it means constantly putting your body at risk, there's no one easy answer. Choosing to keep playing volleyball long-term would essentially sign me up for early-onset arthritis and worse instability as I age. Choosing to quit the sport would preserve my joint health, but I would lose that part of my life. These are the two absolutes, but there is an in-between option. After high school, I plan to play volleyball in moderation, listening fully to my body and being careful and conscious of what I'm doing.

Chronic pain and joint conditions have a case-by-case treatment path, and anyone affected faces a course of choices that could greatly improve or reduce future quality of life. Uncontrollable aspects will always be a risk, and the real struggle is learning to navigate a life balance of continuing to live while also being cautious enough to mitigate later adversity. There's never one, single, right answer.



Saved by Factor V

Author's Note: This story is of the time I sustained a concussion. In the story, I will describe a couple of morbid things, such as what a concussion is and what blood condition I have, in light detail. Mainly, the description of my parents' anxiety before I sustained the concussion might be the worst part. Within the story, people will refer to me as Lexie, which is what I went by at the time. Please do not refer to me as that in any manner.

Written by Moss Windingstad

On January 1st 2013, my neighbors, family, and I went sledding. Up at the top of Mounds Blvd with the beacon to our back. We brought sleds, warm clothes, and especially ourselves. We never thought we would need helmets; it's only sledding. The biggest fear we had was falling off the cliff to our left, but the direction of the hill and the brush in the way assured us we would be fine. The time was around 2:30 PM.

My 10-year-old sister, Maggie, had just gotten a big, clear innertube for Christmas, while my other sister, Sophie, and I had gotten regular foam sleds. I was only 5 years old and still pretty small, so my parents directed me to sled down with someone if I wanted to go down, especially on Maggie's inner tube. I desperately wanted to go alone and be independent. I was going to be sneaky and just try to sled down without anyone noticing, but Maggie caught me with her clear inner tube in hand, and we started arguing.

"I have to go down with you, you're too small!" she'd say, grabbing the other handle.

"I'm 5 years old, I'm the oldest in my class!" I'd retort.

"Lexie," she sighed, "we still have to listen to mom and dad." I stared at her, very harshly, and yanked on the handle of the innertube.

"I can do it myself!" I announced. We yanked and bikered up against the wire fencing of the beacon while parents pushed their kids away on plastic, foam, and wood at the corner of the fence.

"Fine," Maggie agreed, "I'll push you, but it has to be on the smaller side of the hill." I let go of the handle I was holding, and Maggie gently set the innertube on the ground and held it steady.

I stepped on, rather, I stumbled into the divot in the middle. Being small, tiny, little Lexie Lulu, I was smaller than the plastic wheel. I got settled and confirmed with Maggie that she could push me.

Maggie pushed me away from the fence, away from my parents. She pushed me towards the right and not the left, towards some trees.

My head up on the rim of the clear inner tube shifted the center of gravity from the middle. I spun around, no longer facing where I was headed. I saw the sky and not my parents rushing. I had Hello Kitty ear muffs on and didn't hear them yelling at me to roll off the inner tube.

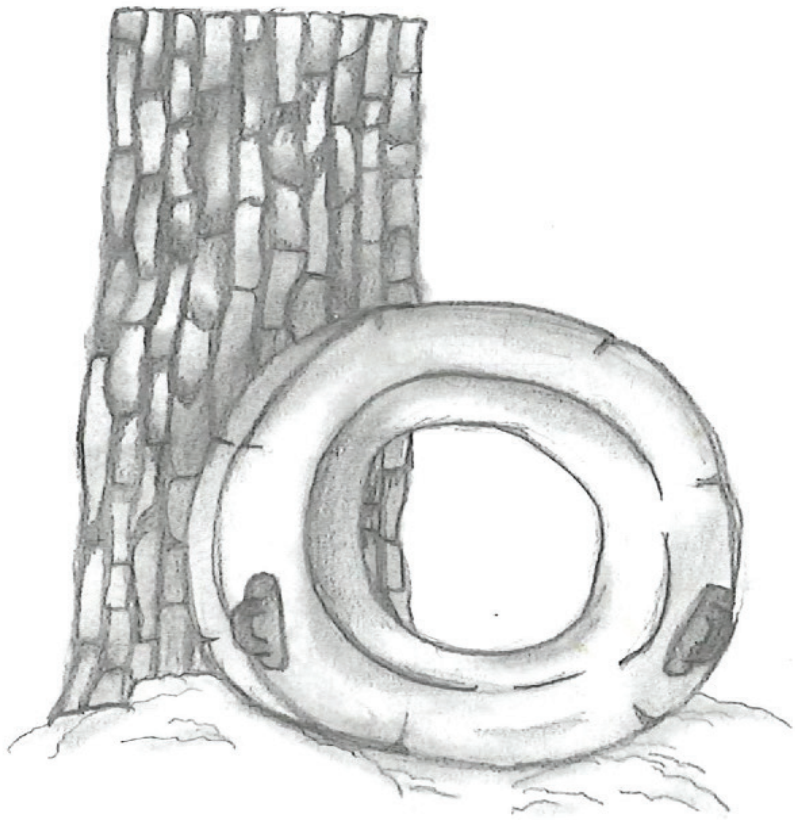
I didn't see the tree; they were so scared I'd hit.

When people hear "concussion," you might think about the everyday one of hitting your head and getting a big bump or headache, you can just walk it off, and get back to what you were doing the next day. But concussions aren't just that; they can be fatal. Mine almost was.

"My weird blood saved me, but someday it might be my end."

A concussion is a head injury. It happens when the brain twists or moves within the skull. They are the most common injuries that people experience, yet it is also widely misunderstood. Experts estimate between 1 and 3 million people in the US visit the Emergency Room for a concussion each year. For kids who are 5 to 18 years old, it accounts for more than half of the ER visits.

The biggest confusion for people is the difference between a mild and a severe concussion. There are 3 grades. Grades 1: mild concussion, you may have trouble focusing, experience dizziness, nausea, or memory loss. You do not lose consciousness and will be able to return to normal activities once the symptoms subside. Grade 2: moderate concussion, symptoms are very similar to grade 1, but this time you do lose consciousness for up to 5 minutes. Some other symptoms include irritability or ringing in the ears. It takes several days to recover. Grade 3: severe concussion, you will lose consciousness for more than 5 minutes. Symptoms are more severe, and it can take weeks before they subside, which include vomiting or speech difficulty. There is a risk of permanent brain injury as a result of the concussion.



It was a good thing my family didn't walk up the hill that day. My dad scooped me up, and my whole family rushed to the minivan. My dad drove while my mom was turned around in the passenger car, trying to keep me awake. "Lexie, you gotta stay awake," she'd say. Maggie was crying in the backseat, blaming herself. Sophie, 7 years old, said she had to stop sledding with her friends, but was still anxious. No one truly knew the severity of my accident yet.

"I can do it myself!" I announced."

My dad pulled up to the Saint Paul Children's Hospital emergency room entrance. He pulled me out of my car seat, and my mom took his place in the driver's seat to take my sister home. I was barely conscious. In the emergency room, the nurses cooed at me, peppering me with questions and requests. They fitted me with a neck brace, not knowing if the injury extended to my spine and/or other limbs, and subsequently cut open my favorite sweater to not jostle my body as they examined it.

About 20 minutes after they first checked how I responded to questions, they tried again. This time, I was completely unresponsive, not even opening my eyes to my name or twitching when they touched me. But I was still breathing. During the first couple of days of my stay, my Glasgow Coma scale fluctuated between 12 and 15. The Glasgow Coma Scale is used to measure consciousness on a 1-15 scale, using the senses as a framework for how to score the patient.

I was brought up to the Pediatric Intensive Care unit to be watched. A CT scan of the neck showed no evidence of spine injury. However, a CT of the head showed a left parietal skull fracture with right temporal and right frontal hemorrhagic contusions (contrecoup injury). A subsequent MRI of the brain confirmed the previously known findings but also identified a left Sigmoid Sinus Thrombus. Blood had reached my brain, but not enough to be a concern since the giant clot stopped it.

Sigmoid Sinus Thrombus is a rare complication within the bloodstream where the blood clots way more than it should. At this point, it was brought to the doctor's attention that my family on my mother's side has a history of a blood condition called Heterozygous for Factor V (five) Leiden; my Grandfather, Mother, and a few Aunts are known to have it. It wasn't brought up before due to the chaos of trying to keep the normalcy

for my sisters and attending to me in the hospital.

In an article by Debrah L Ornstein and Mary Cushman, they describe that Factor V is the protein in the blood that is required for normal clotting to occur in response to injury. People with Factor V Leiden have a mutation in the gene for Factor V. Factor V Leiden is an abnormal version of Factor V that is resistant to the action of Activated Protein C (APC). Thus, APC cannot easily stop Factor V Leiden from making more. Once the clotting process is turned on in people with Factor V Leiden, it turns off more slowly than in people with normal Factor V. Having Factor V Leiden, therefore, results in a condition known as APC resistance. Factor V Leiden can be a factor in a greater condition, but it

"The world was quiet as I stared at the sled, hitting the tree softly without my weight."

can be prevented with regular exercise.

My parents switched who stayed with me at night during my stay. At home, my sisters were left alone for quite a bit each day, with people periodically poking their heads in to give them food and enrichment.

I was discharged on January 5th with appointments to do a repeat MRI a week later and a general checkup with my doctor after that. I was still complaining of a headache and was described as being more irritable than usual by my parents.

The official diagnosis was a head injury with loss of consciousness/traumatic brain injury sustained while sledding, resulting in a left parietal skull fracture, and right temporal and frontal hemorrhagic contusions. Left sigmoid sinus venous thrombosis, which resulted in my diagnosis of Heterozygous for Factor V Leiden. My weird blood saved me, but someday it might be my end.

10 years later, on January 1st, 2023, we went sledding again, as my accident did not deter us from tradition. I still love sledding no matter what. At 20, 17, and 15, only Maggie and I go sledding anymore. That day, we brought our dog up to run while we sledded at the same place we always sledded. Mom and Dad were going to come up later.

Since we are older, we didn't bring helmets with us. We know how to handle ourselves when we head towards a tree.

"Moss," Maggie called out to me as I walked back up from where I finished my descent. "Watch this!" She stood on her foam board, the same board that we've had for years. No more innertubes, the last one popped along with my full memory of that day. She pushed herself off, looking like a surfer riding the snow.

"I spun around, no longer facing where I was headed."

"Whoa," my parents say as they walk up to the part of the hill we reside on. "Be super careful while doing that, Maggie," my Mom says as Maggie stumbles off the sled as it comes to an abrupt stop. Murphy, the dog, runs to catch up with her, almost toppling her over.

I set up my shot from the fence, aiming towards the right because I had been veering left a bit too much for comfort. But instead of going the way I was expecting,I hit a bump, giving me air. I hit it where the hill falls off a bit, steering me right even more than I already was. I saw it this time, and I understood what to do. I bailed, rolling off the board that was heading for the tree.

The same tree as last time.

The world was quiet as I stared at the sled, hitting the tree softly without my weight.

10 years to the day, and I almost died the same way.



A Bump on the Head

Author's Note: Surviving brain damage is scary, but possible. This is a story of my experience.

Written by Luke Hobday

The smell of candy is overpowering, making me never want to unwrap another piece. The huge tubs of fruit snacks and conveyor belts of salted nutrolls take up almost every inch of space on the warehouse floor below us. I close my eyes to try to clear my scent-pounded head, and the pain explodes to a level that I've never felt before. The shock of nails in my head forces my eyes open to see a road bouncing up and down. It takes me a moment to realize that the car is shaking and not the outside world. Looking down, I see the bright orange of my Humboldt jersey accentuated by the red blood smeared over my rubber-raked elbows. A look at my reflection in the window shows that my face is similarly scraped. My eyes close as the rest of my memory is wiped from my mind.

In between the trip to the Pearson candy factory and waking up in the car, so many things happened that I won't ever remember. My knowledge of the worst injury of my life and the events that preceded and followed is based on other people's accounts. The gap in my memory can be explained by retrograde amnesia. It happens after a severe concussion, when your brain collides with your skull, damaging neural pathways. When the damage is acute in memory-storing areas like the hippocampus and frontal lobe, memory is lost. In my case, I lost my memory from around an hour before my concussion to two hours after. My recount of the event is imagination working to make sense of the gaps

"What happened? Did I clear the bar? What day is it?"

in others' stories. Scary as that is, I was lucky. In some cases, victims lose whole years to retrograde amnesia.

That was light, I think to myself as I rolled off the mat. 4 feet 6 inches was the beginning height for the meet, an easy jump that everyone was expected to make. I scissor jumped it for fun. Up next is 4'8, still very easy. The others jump, and it's my turn again. I set up across the mat, take my three steps, and hop over the bar…over the mat… and onto hard rubber. My head collides with the ground, and my consciousness fades.

According to my mom, the temporary loss of brain function was "scary and surreal," like something you see on TV. And then, "after a bit, comical." Every 30 seconds, I would ask the same three questions: What happened? Did I clear the bar? What day is it? The opportunity for laughs was too great to pass up, and my parents aren't the type to anyway. They told me it was Christmas, convincingly enough that I fully believed it. I'd then look outside the window and wonder aloud how the hell we didn't get any snow, which cracked them up further.

"Looking down, I see the bright orange of my Humboldt jersey accentuated by the red blood smeared over my rubber-raked elbows."

Laughs come easy when I tell of my many head injuries. A full court shot missed and found target on my skull instead, a jealous senior player throwing an elbow after I beat him in a 1v1, minding my own business on the sideline as my brother comes barreling down the field to collide his knee with my head, bid after bid after bid (3 of them, one was a shoulder high bid in war-



mups), and then finally the missing of the mat. That one has a lot to it. It took me two weeks to figure out I had a broken wrist and back, and then my cousin asked me if I knew the dumbass he saw on Snapchat who jumped over the mat.

My concussions make for great storytelling ammo, but as the anecdotes pile up, so does my fear for my future. As balls are chucked, knees are slammed, elbows are thrown, and fields are met, my brain gains permanent dysfunction along with the funny stories. According to an RSiCC study, adolescents' post-concussion syndrome (PCS) symptoms are more severe and longer-lasting than those of adults. I still suffer from many symptoms, and it's been three years since the incident. Possible PCS symptoms include chronic headaches, fatigue, dizziness, cognitive issues like memory loss or difficulty concentrating, anxiety, and depression. Retrograde Amnesia is a joke compared to the prospective memory loss that messes with me. Prospective memory, according to Wikipedia, is "a form of memory that involves remembering to perform a planned action or recall a planned intention at some future point in time." It causes immense stress, most notably in the form of my chronic lateness. For a long while after the track concussion, there wasn't a time when I didn't arrive late or just barely on time. My teachers knew about it before I even took their classes because my brother complained about it so much, rightfully so. I've learned to live with it and the other symptoms of post-concussion syndrome, creating strategies that work to lessen their impact. However, concussions can create further problems later on in life that make life arduous and that I am deathly afraid of.

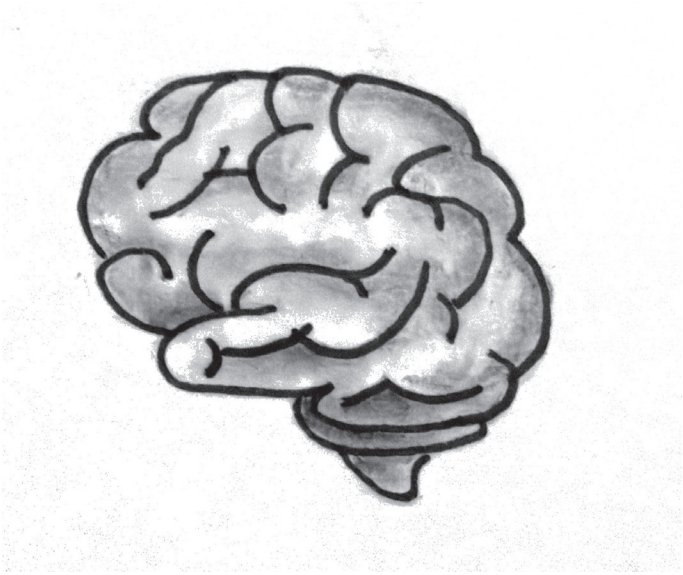
"For now, I feel confident that I live a healthy and happy life on my current course."

According to the University of Queensland, Australia, people who have had just one concussion are 22% more likely to develop dementia. Repeated concussions lead to increased chances of developing Alzheimer's, Parkinson's, or CTE — my greatest fears. I have had 7 concussions. My chances of a cognitively healthy future without intervention seem abysmal.

Despite how horribly unavoidable a cognitively depreciated future may sound, fighting against it is possible. New concussion recovery research is always coming out, giving quality of life opportunities to concussion victims. It's been found that a good diet, exercise plan, and sleep schedule goes miles towards preventing further symptoms, and can actually reverse cognitive decline. Daily memory and problem-solving puzzles also work to crush PCS. I have 4 different brain game apps on my phone that I cycle through daily, and I do my best to get at least 8 hours of sleep a night and 8 hours of exercise a week. These survival strategies seem to work; when I meet my goals, my brain feels refreshed, and when I don't, it feels weak. For now, I feel confident that I live a healthy and happy life on my current course. However, if I get one more concussion, I will be forced to make some hard choices. It would tip the scales of my brain health, and another concussion after that might ruin my life. I'm an athlete, the sport of ultimate frisbee is where I find joy, and I connect with my community through it. It's also where I get concussions. I've come to terms that I can find joy elsewhere, though, somewhere where brain damage is not as likely. I've learned to value my brain at the highest level and to strengthen it as best I can. My survival is a continuous journey, and I feel confident it will be a successful one.

These solutions give hope to concussion victims to work through the survival story that is their life.

Psychological



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Broken Glass

Author's Note: This is a reflection on my journey of navigating my eating disorder for the past four years. It goes through my experience at the Lorde concert this past October during a relapse. The story follows the lyrics of the song Broken Glass by Lorde.

Written by Anya Robertson

Sitting on the concrete floor of the Armory with my knees pulled into my chest and everyone dancing around me, I asked myself; when is this ever going to end? A night that I had been looking forward to for months had turned into my own personal nightmare. There were people all around me, screaming lyrics, dancing so much that they were pushing my friend away from me. The person behind me kneeled down to me and asked if I was okay. All I could do was nod. "I'm fine, I'm fine." The truth was that I was not fine, but I put myself in this situation, which was rather ironic, especially given the artist I was there to see.

Lorde is one of my favorite singers, partly because of the relatability of her songs. Her latest album, Virgin, released June 27th, 2025, had several songs that focused on her experience with an eating disorder. The song that focuses on her eating disorder is Broken Glass, the 9th song on the album, and my personal favorite. Her eating disorder is also mentioned in What Was That, the 2nd song on the album, and If She Could See Me Now, the 10th song on the album. She sings about her obsession with her weight and body, excessive exercise, and restricting food intake, all things that I have personally experienced. I was more of a casual listener of Lorde before Virgin was released, but once I heard the lyrics "I cover up all the mirrors, I can't see myself yet; I wear smoke like a wedding veil; Make a meal I won't eat," from What Was That, I was hooked. Virgin was my 2nd most listened to album in 2025, as I sang along to the lyrics that depicted my experience much better than I could ever explain.

She opens Broken Glass with "Mystique is dead—Last year was bad." For me, it wasn't just the last year that was bad; it was the last four years of my life. It started in the fall of 2021 after swim practice when someone told me not to worry about my body because I was the 2nd skinniest person on the team. I stopped eating enough, started forcing myself to vomit, and worked out until I dropped. In May of 2022, I was sent to intensive eating disorder treatment, which lasted until January of 2023. Treatment changed my life by interrupting the pattern I was in and giving me strategies to cope, but it was far from fixing me. I've had countless relapses where I've fully fallen back into starving, purging, and hating myself, but there are also the good days where I'm fine except for the nagging voice in the back of my head telling me that I should skip my next meal. I've been in a cycle of loving myself, eating enough, being comfortable looking in the mirror, to skipping meals, purging, crying over food, and losing weight over and over again ever since leaving treatment three years ago.

"I felt trapped, both by the food in front of me and the war inside my head telling me that I didn't deserve to eat."

"I let myself get—Sucked in by arithmetic." The day of the concert, I spent my morning at school, serving coffee (5 calories) and apple cider (180 calories) to people watching an ultimate frisbee game in a manatee costume. Afterward, my friend and I went to Starbucks, where I drank a grande Iced Peach Green Tea Lemonade (80 calories), my second drink of the day, bringing my calorie count to 260 at 11:30 AM. I went home to find that I weighed 116.7 pounds. I knew I couldn't have any more calories that day if I was going to be 100 pounds by Halloween in just two and a half weeks. At 5:00 PM, my friend picked me up for the concert, and I was still running solely on those 260 calories from five hours before. I spent the day counting, ignoring my lightheadedness so I could lose weight.

"Felt great to strip—New waist to hip." Although looking in the mirror can be painful as a person with an eating disorder, it can also give me a strange amount of exhilaration. Running my hand along my torso and feeling my ribs, my hips, my collarbone, and the curve of my waist after a day without food gives me chills. I feel complete as I touch the evidence that I'm skinny. On days that I keep food out of my body, it is the most beautiful thing in the world.

"I hate to admit—Just how much I paid for it." As



I run my hand along my body when I haven't eaten, I feel ashamed. I know that some people are naturally thin and that I can only achieve this type of beauty by killing myself. I can't love myself without a dizzy head and a sore throat. I have to push myself to my breaking point. It's embarrassing how far I have to go just to feel at peace with myself.

"I've been in a cycle of loving myself, eating enough, being comfortable looking in the mirror, to skipping meals, purging, crying over food, and losing weight over and over again"

"Did I cry myself to sleep about that—Cheat about that?" At the concert, overwhelmed with frustration, I started to cry. How could I do this again? What is wrong with me? I forced my friend to leave our spot and move to the edges where we couldn't see anything to collect myself. My friend had to bring me outside to the smoker's area because I was crying so hard about cheating myself out of this experience. I couldn't believe what I was doing to myself. Again.

"Rot teeth about that?" Kneeling over the toilet after every meal and snack. Throwing up water and soda. Plunging my fingers into the back of my throat until my food comes up. Looking at myself in the mirror with red eyes and messy hair. Knicks on my knuckles from hitting my teeth as I gag. Bile rising in my throat constantly.

"Sweat hours a week about that?" My list of exercises in my notebook only left my clothes wet and my tailbone bruised. I could never improve in my performance because of how weak I was, but I could never stop. I ran on the treadmill for at least an hour every night and weighed myself after, crying when the number didn't dip low enough.

"Compete about that?" In my treatment programs, I looked at every new girl. How skinny was she? How much does she weigh? Where is her collarbone? I measured her up in my head just to feel vastly disappointed in myself. Every meal, how much other people ate, whether they threw up after, and whether they were forced to have an NG tube. Everything I did wasn't enough compared to them. I was in a twisted game of who could be the sickest. Today, I still look at people

like that. I compare my body to everyone else's, and I measure my own worth based on it. I calculate how much food I can eat based on what the people around me are eating.

"Lose my freak about that." In seventh grade, I yelled at my mom because she told me that I couldn't have my pasta without sauce. I've spent entire hang-

"Thinking about eating a meal and keeping it down when I'm in a bad headspace feels like jumping off a cliff."

outs with friends having anxiety about the food that I ate or anticipating the food I would have to eat. I cry over being given 12oz of chocolate Ensure. I've started shaking after taking a bite of food. I might have a panic attack over gaining one pound or getting seconds, depending on my headspace. After a meal, sometimes all I can think about is running to the toilet and forcing my fingers down my throat until everything comes up. The voices have gotten so loud that I've thrown up anywhere you can imagine, from in a plastic bag to a sink in residential treatment.

"Huh, all of the above." My friend told me that night to breathe. She hugged me as I sobbed about how dizzy I was and how I couldn't feel my fingers and toes. She bought me fries and forced me to eat them even though I told her I was fine. I felt trapped, both by the food in front of me and the war inside my head telling me that I didn't deserve to eat.

"I'm scared to quit—Loosen my grip." Objectively, I know that my eating disorder is not healthy. I know that it is absolutely ridiculous to stick my fingers down my throat after eating. I know that starving myself is not beneficial to anything, but I don't really know that. Every time I feel better about myself or want to eat, I feel like I'm out of control. Being able to control my body makes me feel safe. Thinking about eating a meal and keeping it down when I'm in a bad headspace feels like jumping off a cliff.

"It's tough to admit—Just how much I get from it." Writing this story, I'm well aware of how insane I sound. I hear everything that I'm writing, and I feel idiotic. The truth is, though, that my eating disorder has me on top of the world sometimes. The feeling of emptiness after I throw up is like being purified. I feel superior when I haven't eaten anything. The euphoria I felt when I got down to my goal weight was more than when I saw that I got a 5 on my AP art portfolio or when my writing was published.

Lorde said in a radio interview, "All I was thinking about was trying to weigh as little as possible. Going to sleep thinking about food, waking up thinking about food, and exercise - that was my creative pursuit." Her eating disorder prevented her from being able to create, and it does the same for me. During my eating disorder relapses, I can't do anything except for think about my eating disorder, and for all it does for me, it takes away even more. It took away the end of seventh grade and half of eighth grade. It took away track and swimming. It took away inches off my expected height. It took away my muscles. It took away my relationships with my family and friends. It took away my self-esteem. And most of all, it nearly took away my life.

Today, as I write this, I'm angry. I'm angry that I spent so much time worrying about food that it made me numb to life. I'm angry that I barely remember a concert from one of my favorite artists because I was so stuck in my head. I'm angry that at every social gathering, I feel like an outsider when I get my plate. I'm angry that my parents spend thousands of dollars just to partially fix me. I'm angry that I have to go to therapy every week, even though I know I need it. I'm angry that I will probably have to be on medication for the rest of my life. I'm angry that 60-70% of girls have tried to lose weight by 14 years old. I'm angry that a person dies every 52 minutes from an eating disorder. I'm angry that I fell victim to every self-hating concept directed at women and their bodies. But above all, I'm angry that I can never get away from my eating disorder, no matter how much I try to.



Mental Athleticism

Author's Note: This is a story about how one of my friends got injured in his senior year playing basketball and the obstacles and issues he had to overcome to not make the decision between playing through the injury and getting surgery later, or getting surgery earlier and not playing at all during the basketball season.

Written by Justin Benner II

The sneaker squeaks and the rhythmic thud of the ball were the only sounds in the St. Thomas gym until the silence broke. One minute we were 3-on-3, laughing off the looming Monday deadlines. Next, Simon on the hardwood. Looking at him on the ground made me feel a certain way, a sick feeling in my stomach, and I wasn't even the one who was hurt. The action of him falling hit me hard, thinking of all the possibilities and limitations he could face after this incident. It wasn't the fall that was scary; it was the way he held his shoulder like it was going to fall off. At first, I didn't think anything of it until I saw him get up and walk away. Every minute he was gone I felt an eternity of sorrow for him, and I was getting sadder by the minute. The main thing going through my mind was whether he would be out for his final high school season and if the injury was extremely serious or not. I couldn't even pick up a basketball during the time he was gone, almost breaking out into tears for him. About 15 minutes later, he comes back, still holding his left shoulder. It sat at an unnatural angle, compared to the level of his right shoulder. We end up sitting down with him while he calls his mom, and eventually he leaves the gym with his mom and goes to the hospital.

Injuries can be detrimental for any type of athlete when it comes to their sport. Studies show that positively addressing the injury and fully committing to the rehabilitation process can result in improved athletic ability when it comes to returning to a sport. Athletes are not accustomed to showing weakness, so displaying that emotion and normalizing the situation for patients and families is really important. Some studies also show that stress responses are the strongest psychological risk factor for injuries. It's not only the feeling of being unable to play the sport that you love, but other factors, like the rehabilitation process and cognitive, emotional, and behavioral responses, that will affect you.

"An athlete's psychological correspondence to injury can either delay or enhance physical recovery," said Dr. Britton Brewer. As sports psychologists began to examine the psychology of injury in athletes, they first speculated that people's reactions to athletic or exercise-related injury was similar to the response of people facing imminent death. According to this view, exercisers and athletes who have become injured often follow a five-stage grief response process. These stages are: denial, anger, bargaining, depression, acceptance and reorganization.

When Simon tore ligaments in his shoulder he said he wasn't sure where the injury was, thinking it was in his elbow because of where he felt the pain. When he got up and left the court, he went to get some ice from the front desk, but had realized that this situation was more serious than just some ice when he couldn't move his fingers at the moment of the injury. He started worrying he wouldn't be able to do certain things, even outside of basketball.

"It wasn't the fall that was scary; it was the way he held his shoulder like it was going to fall off."

Although a great deal of research has been done on psychological reactions to injury, one aspect that has been virtually neglected is the meaning or relevance of injuries to athletes. Only a couple of researchers have addressed this topic and have found that the most important thing is the athlete's perspective. Some athletes saw sports injuries as an experience that challenged their perspective on life and sports, and learned from the purpose and timing of the injury. Some athletes discussed the dynamically changing nature of emotions and their increasing willingness to share their feelings. They also discussed the importance of accepting an injury or challenge to overcoming them. They also thought the relationships they formed as a result of their injuries reflected the relevance of social connection and support to their recoveries.

Mental athleticism isn't about getting hurt; it's about the "reorganization" phase. For Simon, and any other athletes who have been injured, their stats aren't points, but inches of range of motion and mental resilience.



Running From Failure

Author's Note: The following is an account of my tenth-grade cross-country season and how stress impacted me both mentally and physically. While I know being overly competitive isn't a debilitating issue, it has still influenced certain aspects of my life.

Written by Aria Kulseth

There I was, looking up at a monstrous rocky hill, in the humid, blistering August heat. It wasn't supposed to go like this. I was supposed to be stronger, better. Yet, only 1.5 miles into my 5K, my legs burned with lactic acid, and a massive side-ache had developed. At that moment, out of breath, and looking up at yet another hill that I would have to climb, I knew that I had failed.

Running has been a significant part of my life for as long as I can remember. I prided myself on being labeled as the "fast kid" at recess in elementary school, and I began signing up for races at age 7. In eighth grade, I had finally worked up the courage to sign up for the track team, and after loving it, I joined cross country the following fall of my ninth grade year.

So how was I here now, a year later, wanting to quit? It was my tenth grade cross-country season, one in which I had expected to be a personal breakout year, but instead, I was slow, under-fueled, and about to break.

Ninth grade cross country had been a very successful season for me, and I had improved quickly for it being my first year on the team. By the end of the season, I had dropped over seven minutes in my 5K time, and I had moved up from being the "rookie" to almost beating the team's top runner, a senior. The spring track season only fueled my self-esteem; substantial PRs in the 400m proved that I had potential and would only continue to improve. I finished my track season, placing third at Sections in the 400m, one spot away from State. After my successful year in sports, I was determined to do even better in tenth grade. I created an intense summer training plan, and as much as I hated it, I stuck to it. I would try to wake up early to avoid the summer heat, go to the nearby Macalester track to do speed workouts, and would constantly push my limits. I wanted to do well. I wanted to make it to State this year. So, as the first race of the season came around, I was feeling rather confident in my abilities. Was I nervous? Of course; but no matter how prepared I felt, being scared was always a given. As I got on that starting line, I had no idea that this, the first race, would most likely be the deciding factor of my entire season. From here, I would spiral out of control in a whirlwind of self-doubt, stress, and improper training, which would only turn into a grueling three-month cycle that would take a toll on both my body and mind.

I have always been afraid of failure; it is one of, if not the sole, driving forces to everything that I do. No matter how prepared I am, it is always looming over me, just waiting for one slip-up, one shortcoming, just one moment to reveal that I had been sneaking by purely on chance, and was unworthy all along. No matter what it is, whether it be academics, sports, or social interactions, I am always bracing for that acknowledgment of failure. When I saw that hill at Lake Elmo, felt the ever-growing pain in my side, there was only one word I could use to describe myself, and although I did not stop running that day, I knew that I had given up. I had not pushed myself enough, and I had failed.

"The minute I got on that start line, the minute the gun went off, I felt weak."

Athletic pressures and stress can often plague athletes. A study done in 2019 found that ⅓ of male student-athletes and ½ of female student-athletes reported being impacted by anxiety in the past 12 months. Younger women in particular are more likely to report feeling stressed to perform well. So why do athletes feel this stress? Is it external factors, people pressuring us to do better, to push ourselves? Or is it all in the athlete's own mind? How can they find a balance between caring for their sport and results and making sure that their health isn't paying the price? Trying to find this balance, especially in endurance sports, can be quite tricky. The whole goal is to put your body through just enough stress to improve. The very popular saying "No pain, no gain" perfectly sums up the runner's mindset, or at least what is thought to be the ideal mindset. A runner can easily get it in their head that if they can push themselves to reach their breaking point but overcome it, only then are they training correctly. But when is it too much? At what point does your body and mind give

up? And how can you train healthily when you are consistently trying to break yourself? A study done on high school athletes found that roughly 60% experienced moderate to severe stress levels, with a quarter of them acknowledging that it negatively affected their performance. Despite this, of the athletes that responded yes to experiencing moderate to high stress levels, 75% of them did not obtain help from a medical professional. Prolonged periods of moderate to severe stress impact not only the mind, but also the body. Chronic stress can interrupt muscular movements, impair immune system functions, disrupt sleeping patterns, and can lead to a decreased amount of focus and concentration. All of these combined not only increase poorer athletic and cognitive performance, but also put these athletes at an increased risk for injury.

When I got home from Lake Elmo, a flood of tears immediately ensued. I couldn't understand how it had gone so poorly. How had I managed to run four minutes slower than my goal time? I tried to convince myself that it was a fluke- the summer heat and humidity had contributed- but deep down, I could sense a more serious issue; I had wanted to give up. Not once in ninth grade did I ever seriously contemplate quitting mid-race. It didn't matter how exhausted my legs were, how hard it was to breathe; I kept going. Wanting to quit was unlike me. I wondered what had changed in the last year, why I now lacked the conviction that I had once had. But most importantly, I was frightened that it would happen again, and maybe I wouldn't be able to push through this time.

Weeks passed, and a cycle began to develop. I would do well in training, meeting all of my times during track workouts, but the minute I got on that start line, the minute the gun went off, I felt weak. One mile was all it took for me to almost quit. Every single race followed the same pattern. Afterwards, a storm of anger, stress, and grief always followed. The stress was beginning to seep its way into my body. I couldn't sleep well, I'd have dreams where I was running, dreams where I had lost. Sleep, which had once been my escape, had now become even more time for me to dwell on my shortcomings. I couldn't focus at school. Every single thought was occupied with analyzing my races. And most importantly, I began to eat less. The stress had gotten embedded so deep within me that I couldn't eat. I started losing weight, which only made me weaker. By October, standing at 5 '7", I weighed only 103 lbs, having lost over five pounds in the past two months. My legs always felt heavy. I now struggled through runs that had once been easy. Despite the obvious signs, I excused my fatigue as a lack of mental strength, and I began to push myself even more. My mind began to abuse my body. I forced myself to run until I cried or hit the ground, just to prove that I was still strong enough. Running was no longer a joy of mine, and had instead morphed into my own self-punishment method. If I did poorly on a test or had acted out in a way I felt was unfit, I would force myself to run until I was exhausted. No matter how much it hurt, I convinced myself that I had deserved it. I felt like I was in my own personal hell. One in which I would never be able to escape, as easy as it may have seemed. I probably should have quit. I should have walked away from the sport that I had once loved. But I couldn't do it, I couldn't work up the courage to tell my coaches, my parents, my friends, that I could no longer run, that the sport had taken a significant toll on who I was, that I couldn't sleep or eat anymore because of it, that my mind was completely consumed by it. But most importantly, I couldn't admit to myself that I had given up, that I had failed. So, instead, I kept running. I bottled it all up the best I could, and whenever I would slip up and voice my stress to my friends, I would lie and say I was alright.

The constant reassurance from my peers and family only made it worse. Always hearing "of course you'll PR," "you've got State in the bag," only proved that their visions of me were completely altered. They didn't know how tired I was, or how much I prayed for sleep. They didn't see the lines in my face as I tried to smile, trying to stretch the already thin skin that lay across my



bones. They didn't know how close I was to quitting every race, hoping that I would pass out, if it meant I could be done. They didn't know that I was weak. I felt betrothed to them- I owed it to them to do well, no matter how much it destroyed me.

Relative energy deficiency or (REDs) is a recurring problem in both women's and men's sports, affecting between 23-80% of women, and 15-70% of men. In women's sports, it is defined as the interrelationship between menstrual irregularities, low bone mineral density, and low energy availability. The main cause of REDs is energy imbalance: when a body is burning more calories than its intake. With such a calorie deficit, the body often can't sustain the energy necessary to improve, or even maintain fitness levels. Energy imbalance can be both intentional and unintentional. Women often face higher internal and external pressures to change their bodies, and primarily in distance sports, to fit the thin "ideal" body type. This causes destructive habits like severe dieting, food restriction, or excessive exercise. Although intentional disordered eating is high among female athletes, unintentional disordered eating can also occur. Athletes often cannot realize just how many calories they are burning and fail to adjust their intake. Whether improper energy intake is intentional or not, they both have significant effects on the body, leading to extreme weight loss, fatigue, poorer performance, increased injuries, higher stress levels, depression, and a cascade of other consequences. Endurance athletes are at an even larger risk for developing REDs, with around 82% of endurance athletes being at risk.

"They didn't see the lines in my face as I tried to smile, trying to stretch the already thin skin that lay across my bones."

My tenth grade cross-country season finally revealed something about myself that I had worked for so long to suppress—I am perfectly willing to destroy my body and mind in order to succeed. My competitive nature takes hold of my consciousness, and suddenly, nothing else matters. Almost everything I do suddenly turns into a competition. I have to put large amounts of energy into suppressing my desire to win. I find my mind competing against those that I love, my friends at school, and even, like in this case, myself.

This may not be a huge problem in the larger scheme of things, but I am still in a constant battle to regulate my competitiveness. I don't want to be an envious person. I can't allow myself to be resentful when others do better than me. I've had to put lots of time into being actually happy when others succeed, even if it leads to a loss on my part. Humility is one of my largest virtues, otherwise I would be insufferable. My whole life, I have been hyper-aware of my competitiveness, but it wasn't until I was 16 that I finally got to see how damaging it could be. My tenth grade cross-country season was an epiphany. It wasn't until after it had ended that I began to dissect what had actually occurred. Being a "weakling" was never the problem, nor were other people's thoughts. It was my deep desire to win, to be the best, that had decided my fate. I never needed the validation of others. It was my own that I was seeking all along. My stress and anxiety were only projected onto others, and I convinced myself that they were the ones who cared about my performance. I allowed my mind to methodically destroy my body, and I became tunnel-visioned, only thinking about success and perfection.

I would like to think that I have changed since tenth grade. I would like to believe that I no longer strive for perfection, and have come to realize that running is not purely about reaching the desired time. And in some respects, I have. When I don't perform perfectly during a workout or race, I don't break down in tears anymore. My initial reaction will always be to panic, to second-guess everything that I have done. Every sports season, I have a moment of panic when I don't meet last year's PR's, and I always get so close to convincing myself that I am weaker than I once was. If anything, my tenth grade season taught me how to override my anxiety, but it definitely did not get rid of it. I still feel in purgatory before each race, I still feel the slight urge to cry when I don't do as well as I have wanted, but I now know that it won't kill me. When all is said and done, running is just a sport, and I choose to do it. I have learned how to deal with my stress surrounding it. Even if I will never truly overcome the anxiety that running gives me, I believe that I am mostly able to compete in a healthier way now, even if it will always be something that I will have to battle.



Survival Mode

Author's Note: This essay explores the understanding of psychological "survival mode," diving deeper into how life experiences shape our own internal safety mechanisms. I have included research about 'survival mode,' and the story of my grandfather, Xaychue Thao, a CIA commander during the Secret War in Laos, and his own experience with survival. By comparing and contrasting these experiences, this essay goes deeper into how survival mode plays out both mentally and physically. With this comparison, it also helps explain how my own experience as the oldest child has changed my own perspective on vigilance.

Written by Valentine Thao

I stood there, in the cafeteria after school, overwhelmed with the warmth that sprawled throughout my face. I, coincidentally, had the chance to talk with the girl who I so badly wanted to be friends with throughout high school. We had volunteered for the same time to help out with homecoming concessions. My words felt all clogged up in front of her, stuck whenever I tried to make sense of myself. There was an uncertain feeling that took over the conscious part of my thinking. What do I say in order to make sense? I needed a good reason to escape this conversation that I was making awkward. To remove myself completely, my own unbearable face of embarrassment. I excused myself fairly quickly, as I let myself breathe, to find myself again. To help keep me stable. To find safety.

There are many forms of what the term 'Survival Mode' means. A person doesn't have to go through a physical survival event in order to achieve this chronic stress. It isn't just for those strategizing during some physical danger, but the overall mentality of those who are facing a challenging time mentally. Stress itself also isn't just one whole thing. There are multiple levels of stress. 'Survival mode' is a level that is far from healthy stress. It is the uncontrollable/chronic stress that spills out in the long term. Healthy stress helps you benefit from things like completing an exam or learning how to drive. But people who have built up long-term unhealthy stress can't control how they feel. In a more chronic stress, the sympathetic nervous system will use its fight or flight response. The body will respond with heavy breathing, a quickened heartbeat, and an increase in your blood flow. It's also known that the stress response itself is supposed to be more short-lived, meaning the rest and digestive nervous system takes over when the environment comes to a safe state.

"I had become way too socially aware for my own good, consistently looking for 'danger' in the emotions of those around me."

For example, here's a personal story from writer and speaker, Elaine Duncan. She talks about her own realization of how she herself was in survival mode. She normalized it, primarily thinking that it was only a temporary thing. She consistently would look out for potential danger, along with finding herself rehearsing any sort of outcome that could happen. She also realized how deeply she had already buried her own feelings because she was scared of her own weakness. She states how her environment was always filled with a lot of chaos. This caught her in a state of looking out and being mentally prepared to get on the right side of people's emotions.

The whole idea of survival mode is overall control. It causes your body to anticipate everything. Still, finding



ways to cope and see survival in a different perspective is something that can help. It takes a lot of time, but seeing it as a chance to grow and learn from it will help you a lot.

I have always been more of an observer, rather than someone who jumped into an unpredictable situation. This meant I took up most of my time predicting any sort of future events. With this chronic long-term stress, it also gave me the skill of helping those who needed ideas or someone to just simply vent to. I observed their situations to help other people make sense of them, or talked them out of a tough situation. It became a skill I've built up throughout the years of being an oldest child. It meant that the achievement of maturity in my younger age made me hyper self-cautious. I soon had the realization of why being this way skyrocketed my own chronic stress little by little. I had become way too socially aware for my own good, consistently looking for 'danger' in the emotions of those around me. It caused me more than just a pit of anxiety, but the physical urge to remove myself from any sort of situation. After the situation with the girl at homecoming, I spent the rest of that night replaying the interaction in my head. I felt frustrated with the way my own embarrassment took over, rather than my own excitement to potentially be friends with her. Back then, I didn't fully understand why I had reacted like that in a situation that wasn't even close to actual danger.

"I knew right there, I died. Still, I could feel every last bit of energy shake within my arms. I began to crawl"

There are both differences and similarities in how physical survival mode plays out and how the chronic stress of survival mode takes place. My grandfather, Xaychue Thao, was a CIA commander in Laos during the Vietnam War (Secret War), from 1961 to 1975. He grew up in an area where you had to learn quickly for your own sake, to mature quickly. Around the year 1961, my grandfather was recruited to a higher command position in the CIA, due to his dedication. There was a time he survived a disaster. My grandfather signaled his men to quickly walk ahead as he stayed put and went last. Out of nowhere, a big bomb started heading straight towards him. The intense noise and heat wiped him off his feet completely. It had struck parts of his waist and leg badly. "My own body was instantly drenched in an intense amount of blood that my uniform soaked up completely. It covered me whole," stated my grandfather. He couldn't even stand up without feeling immense pain run throughout his whole body, yet he had the mental strength within him to move forward. "I knew right there that I had died. Still, I could feel every last bit of energy shake within my arms. I began to crawl," said my grandfather. With every last inch of his breath, he crawled and crawled, slowly reaching his men and calling for helicopters to come quickly. My grandpa had the intention to not only save himself, but those who he called family too. Not only does this show how physical survival mode is quick and efficient, but shows how the brain tries to prioritize solutions over any sort of pain, a mechanism that mirrors the hyper vigilance that is also found in chronic stress.

Overall, survival mode is a state that is shaped from experience, and organizes our brains to protect ourselves within our own lives. The reason behind my grandfather's crawl and Elaine's own "rehearsed outcomes" has changed how I see what my own "clogged words" were. I realized that my own brain was just trying to do its job at keeping me stable at my own comfort level. When I stood frozen in front of the girl, it wasn't that I was failing at a social interaction, but that my internal alarm system was different from others. Being an oldest sibling had basically turned me into a full-time observer, along with my own growth in maturing. My grandfather's experience is on a much bigger scale than mine, but it shows that this "survival" instinct is something we all collectively have within ourselves. It gave him the energy to crawl when he physically shouldn't have been able to.

In the end, we all have the ability to understand ourselves more deeply. "The more internally directed you are, the better will be diving in conditions of many smaller, constant changes," explained Siebert. We have the right to slowly learn and open ourselves to unfamiliar things, to ease into new things in order to help us grow our own experiences.



Synchrony

Editor's Note: This is a true story of Rhoda's experience on a Voyageur Outward Bound trip where she had trouble connecting with her fellow campers. She drew from her own experiences and did research on how the brain can affect social interactions.

Written by Rhoda Wonders

Stepping out of the tent to be escorted into a lightning drill, I regretted ever filling out that google form. 4AM, sitting on a life jacket along a skinny 'trail' and waiting for the next rollcall did not improve my opinion on my situation. But, even with the earliness of the hour, the cold wet drizzle of rain, and the sheer amount of bugs requiring a constant windshield wiper motion from my arm, I was glad to be alone and not with the bizarre assortment of people that was my Outward Bound group.

Lightning drills with Voyageur Outward Bound involve sitting along a trail in a very spaced out line, waiting for the "lightning" to end. To keep you entertained, and I guess for safety, every few minutes the group must shout their assigned number up and down the line. This particular lightning drill lasted an hour.

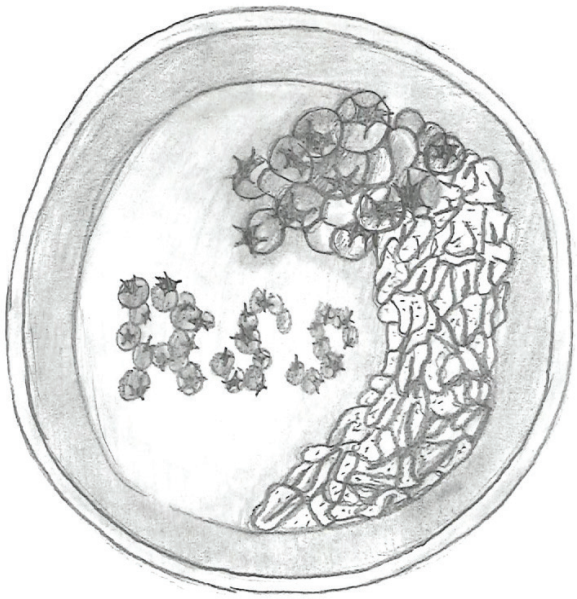
Outward Bound frequently partners with OWL, allowing students to partake in service at their basecamps. This partnership was a bit different, allowing students to actually take an Outward Bound course through their northern Minnesota location. Outward Bound courses are intense outdoor programs, teaching you survival skills, as well as building character. Typically this course is $2,900 per person. For us, it was free. To get on this course, all one had to do was fill out a google form. Fourteen people were picked and distributed between two trips in June. It was nice that everyone on the trip weren't complete strangers, but we definitely barely knew each other. On this trip I was the eldest of seven students, and one of two girls. One of those seven students was supposed to have been my best friend. A week prior to the trip she received a call that wires got crossed and she was not on my trip. I don't usually think of myself as too codependent, yet I felt like a rug was completely ripped out from under me when I heard the news we'd be on separate trips.

I stared into my bowl of wet blueberry granola. Maybe if I keep forcing down spoonfuls of this mosquito-garnished gloop, others will see I'm too busy to chat. The sun was barely up, everyone sitting around the pit was bugbitten and sopping wet. Not one of us got a lick of sleep our first night, between camping with people we barely knew, the less than ideal terrain, and of course, the lightning drill at 4:00 AM. Our campsite was very small and overgrown. It felt cramped already, even without the bugs and humidity. We were all horrifically awkward and uncomfortable. I was hyper aware that I was older than the rest, as well as one of the only girls. That shone through in my awkward attempts at maternal acts. I was like a gazelle learning to walk, except I was trying to make sure people packed their bags right. I focus back on my granola goo and try to relax. There wasn't much to calm down from. We were just quietly on a log eating breakfast, yet I was on high alert, and honestly just wishing I had my friend to chat with.

Relocation-Stress-Syndrome or RSS, is a set of symptoms that occur when an individual moves from one environment to another. Anyone at any age can experience this. A loss of familiar environment can lead to decreased motivation, depression, appetite changes, and even social isolation. Adolescents, more so than adults, are guided by their amygdala. The amygdala is reactive and emotional when targeting fear and aggression. Later in life, the frontal cortex develops and decisions become more logical. Because of the current stage of their brain development, adolescents are very likely to misinterpret social cues and emotions or engage in risky behavior; exact qualities of a person you want to bring on a week long camping trip. All of these symptoms were very present in the group. The boundary waters are undoubtedly beautiful, but they can also be extremely overwhelming for a number of reasons.

"Maybe if I keep forcing down spoonfuls of this mosquito-garnished gloop, others will see I'm too busy to chat."

We stared at the canoe, willing it to move. "Maybe if we bang on it three times and call for Magneto he'll come move it for us? Like a bloody mary situation?" I asked, hoping for it to be true. We agreed to try it and as one can imagine, Magneto the Master of Magnetism did not suddenly come down from the sky and move the



canoes out of the water. Setting down our last canoe, I stared at the unfortunate campsite we settled on. All of it was on a sloped rock, leading down into the lake. Out the back of the rock was a skinny trail that supposedly led to a pit toilet. It was getting late, roughly 7:30 PM, and we had a mountain of work ahead of us before bed. Of course, tomorrow would be another early start at 5:30 AM, regardless of when we got to bed. Tents need to be put up, along with our tarps and bear bags. Dinner needs to be made, wood needs to be collected, and we also need time to air out our feet and change shoes. In no world should this have taken seven people four hours to accomplish, yet at 11:30PM, we finally got to eat our cheesy rice soup, garnished once again with mosquitos. Even though I hadn't eaten since 3:00 PM, it was hard to eat the cheesy mosquito gloop. Not for the taste or the mosquitos, but I was just so exhausted, and this was my last task before bed.

Drained, I looked around at our group, all in the dark trying to hide under a tarp with nets to protect us from the bugs. Everyone looked as frazzled as I felt. Those four hours were spent trying to rally the troops into completing even just one task with varying results. Trying to get people to move when I was older and barely even knew anything about them was weird, and felt controlling. Yet, without prodding it's possible we would still be on that rock trying to make it to dinner. To make matters worse, the instructors held the promise of coffee over my head. "Maybe if you move faster we will have time to brew some coffee!" But I was moving faster, in fact, I was the only one moving. I just didn't understand everyone else's complete unwillingness to do anything. Though, when all huddled in the tarp I realized we were closer than we had been. Many inside jokes had been formed, and people had their buddies they preferred to stick to. But I still found everything overwhelming. It was easier to be on my own.

For meaningful social engagement to occur, the brain must register that the environment poses no threat. If stressed, the brain sends less energy to empathy and reasoning. Instead, it focuses on reactive and narrowed thinking. Returning to the amygdala, new social groups can trigger stress there. This leads to heightened anxiety and fight or flight response. This sometimes is known as Amygdala Hyperactivity. With the brain treating these social situations as threats, it is almost impossible for the brain to participate with the group and partake in synchrony. Brains love synchrony, or acts of empathy and cooperative tasks. Brain synchrony is when brain activity aligns between people during a social interaction. This is absolutely crucial for forming social groups, trust, and learning.

Canoeing our fifth mile of the day, I ran out of ques-

"I slowly spiraled, my attitude giving out, then my body."

tions to ask my partner. After trying to speak about Monster High for twenty minutes, combating wind and not facing each other, we both fell silent. I didn't mind. I was focused on trying to paddle for the both of us. Paddle after paddle, stroke after stroke, I was just so glad to be in the back of the canoe. But keeping the boat straight proved to be impossible in the wind. I felt terrible, and my poor partner was beyond seasick. As well as trying to keep my boating partner well, I was desperate to keep up with the other canoes. They had to stop and wait for us to catch up what felt like every five minutes. Though it was completely understandable why we were slow, it was hard for me to accept it. I felt like a burden to the rest of the group, as well as just… weird. My canoe carried the only female students on the trip, and being remarkably slower than everyone else freaked me out. Consistently throughout the week, I found myself pushing myself to the limits almost constantly, while others definitely weren't. When I had to admit I was too weak to do something, it was beyond hard. As upset as I felt, I was more petrified of my partner finding out my feelings. It felt selfish to be upset

when I wasn't even the one sick, and I felt guilty for that. That day, we paddled 15 miles. I slowly spiraled, my attitude giving out, then my body.

At lunch, everyone was giddy because we were technically eating lunch in Canada. I was already feeling the morning of hopelessness paddling in my body and my mind- I couldn't share in their excitement. I was just completely weak. I sat on a log and watched the chefs for the day pull out food. Tuna tortillas. How amazing. I watched people fight over the different flavored tuna. Oh how wonderful, we don't have enough. I knew I deserved the tuna way more than anyone else here, that tuna was my right. And I could've stood up for myself, but I was so tired. Someone in the group spoke up about how I hadn't mentioned anything about the tuna. It angered me. I didn't need a spokesperson. I respected the gesture but it felt too condescending for me to accept. I slathered mustard on a tortilla and called it good. Amazingly, I got the last two tortillas and put them in my pocket napoleon dynamite style for later. Back on the water, all I could think about was just moving forward to the next portage. I almost didn't care that I would be too weak to help with the boats during our portage. I just kept paddling. Left, right, correction stroke, right, left. I just needed to get to shore. At the shore I could cry, but now was not the time.

"Consistently throughout the week, I found myself pushing myself to the limits almost constantly, while others definitely weren't. When I had to admit I was too weak to do something, it was beyond hard."

On our last day, we finally paddled up to our last and final campsite. By an absolute miracle, we were approaching camp at 11 AM, about five-seven hours earlier than we usually do. Our instructors go up to check the site, and I start buzzing with excitement at the idea of just relaxing. At the okay, we hop out of our boats and start hauling out our packs and other gear. With the food pack on my back, I scramble up the roots and rocks, climbing the hill to where it was level. I set the pack down and breathe for a minute. Thank goodness we finally made it. The best part is we were only three miles from our exit point. Tomorrow is gonna be the easiest paddle. I make my way back down the roots to our boats and I slip. I immediately try to get up but I am forced to just sit down. I try to protest against my body, but then realize, maybe I am too tired and others can help unpack the boats. I sit on the very log that betrayed me and grumpily watch everyone unpack the boats and camp.

My life was never really in danger on that trip, but from a social standpoint, I wasn't really surviving. I wasn't making close connections, and I wasn't reaching synchrony with anyone. There wasn't anything wrong with the people or the course. I just wasn't able to connect with anyone too well. When you set out in life, you either meet people and jive, or you just don't. Social situations are remarkably important. For example in high schools, seating charts can make or break a class for people. Even if the content is the same, the peers you are sitting by heavily influence your experience. If I had even just my close friend on the trip, or having someone my age that I could talk to without feeling like I needed to censor myself because of the age difference, everything would've gone much smoother from a social standpoint. I believe I would've let myself take up more space, and feel like less of a burden. No, it's not that big of a deal, but those were walls my brain put up, and I am positive others have as well in similar situations. My brain would've been more relaxed and able to make connections with others much easier. But unfortunately, that wasn't the case, and I didn't get to walk away from my trip with any close relationships.

Camp Courage

Author's Note: I wrote this story about my own experiences at summer camp in 2023. I used information from other camps, as well as articles about hazing traditions.

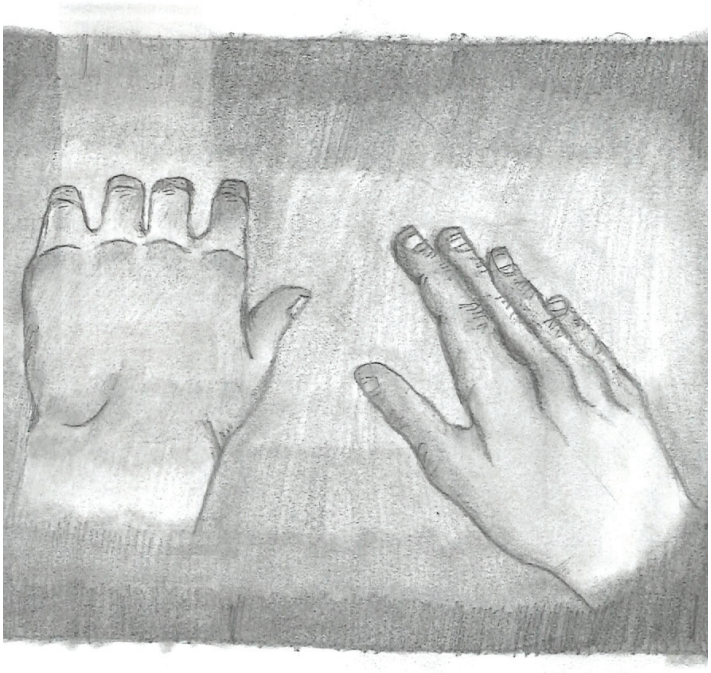
Written by Margaret Moe

"You're fat, you're ugly, you need to shut up and walk forward," our lead counselor says pointing to each member of our 12 person group ages 15-16. I stood at the top of a hill, barely able to identify the trail in front of me. It was 2:00 am, our 20th day at camp, the last day of our three week work leadership program. None of us were processing the things being said to us, especially not the drawn-out and shallow insults we had been hearing for three weeks already. These counselors were trained to be responsible adults that were in charge of camper's safety. Unfortunately, that was not the case.

When I was 13, I was diagnosed with Generalized Anxiety Disorder. This diagnosis meant that I was finally able to be medicated and treated for the overwhelming problem in my life– my irrational anxiety. School is an easy stressor for me. Most of the time, I'm panicking about what other people are thinking, and if it's about me. I'm panicking about my essays, and if my teachers will like them. If there is an opportunity to panic about something, I will panic about it. My anxiety disorder has taken over parts of my life, making me incapable of certain tasks without spiraling into a full-blown breakdown. While Generalized Anxiety Disorder is a key part of my identity, it weighs on me the least at summer camp. Every year, when I step onto the camp property, I am overwhelmed with the sense of love and community that surrounds me. At camp, I feel stronger, more confident, and more capable than I ever do during the school year. Camp has been my lifeline as long as I've been attending. During the rest of the year, I remind myself consistently "at least I have camp" as I count down the days until I'm back there for another adventure.

The "courage walk" was a camp tradition designed to encourage campers to face their fears by testing their sense of direction in the middle of the night. We had done a scavenger hunt to get to this point, navigating the island in the pitch dark. After we received our last hints, we found our way up a hill, around a corner, and ended up somewhere I had never seen before. I looked around, trying my best to use my surroundings and figure out where I was standing. I looked down the path, and realized I had no idea what to do. An overwhelming feeling of distress took over me. I felt my heart rate go up. My breath became shaky, and it seemed like the world was falling apart in front of my eyes. I frantically paced back and forth, The only thing to guide me was the light of the moon, and my own blind sense of direction. "Go ahead," my counselor said, "find everyone else." It felt like I was playing pin the tail on the donkey, except I had been spun around a few too many times, and instead of a tail, it was a safety hazard that would prove my bravery. I was worried, overworked, and terrified of what might happen during my walk, but knew that if I didn't participate, I was letting my fear win. I started by putting one foot in front of the other, using my best judgement to walk along this path I had never seen. When I took my first step onto the nearly invisible trail, I tried to sing to calm down, but the only song going through my head was "I be Flossin" by the Backpack Kid.

Summer camps across the country are built on strong, community-based experiences for campers to develop through. I viewed initiation rituals as learning experiences, things that were not fun at the moment, but critical for character building. Others find these fun in the moment, and a positive memory to reflect upon. Some people in my group that summer had no fun on the cour-



age walk, and no fun reflecting upon the experience. These levels are often referred to as the three types of fun. Type number one is fun in the moment, and fun to look back on. Type 1 fun is things like hanging out with friends, or playing casual games with little to no stakes or emotional depth. Type 2 means something is not fun in the present, but an important and positive aspect of a person's development. This is how I would describe my courage walk and other "hardcore" camp traditions. The last type of fun, type 3, is not fun at all. Type 3 fun means that something is neither fun in the moment or fun to reflect upon. The fun spectrum is a key example of the same practices having vastly different effects on people. Even though every person in my group walked the same trail, our experiences emotionally could not be more different.

"The only thing to guide me being the light of the moon, and my own blind sense of direction."

When we signed up for Work Leadership Camp, we knew what we were getting into. 20 days packed full of team bonding, service learning, and leadership. I knew very little about the traditions we would participate in at camp, and that staff members were discouraged from discussing them around the younger campers. Camp traditions are incredibly important. Things like special days, cleanest cabin awards, and meal songs were harmless things to do to keep campers engaged and make sure everyone was having fun. Traditions are harmless until they reach type 2, fun in retrospect. Type 2 fun is critical for things like growth, development, and achievement, but more common than not when performed by tired, overworked, and underdeveloped teenagers, it can border hazing initiation rituals and leave campers scared.

As I stood on top of this unfamiliar hill, I was able to feel the switch from type 1 to type 2 fun. I was having a great time on the scavenger hunt that we had just gone on, spending time with my found family, and reflecting upon the unforgettable experiences we had enjoyed over the past three weeks. While I looked down what I assumed was a trail, I felt a new emotion that had never presented itself at camp before: fear. I had lost the sense of trust in my counselors that had been keeping me safe, and I realized the only person that could get me over this fear was myself. Walking along this trail gave me some sort of tranquility. The ability to be left alone on camp property was a big deal, and this was the first time I was experiencing it. As I followed the trail, I gained some sense of direction as I passed the archery range. This familiar area was a clear indication that I was heading in the right direction. I thought back to my time growing up at summer camp, and remembered a significant detail about the location of our courage walk. I was just 20 feet away from the main camp road. The road glowed in the dark, as the lighter shade of gravel held onto the moonlight better. I had finally found safety. As I practically ran down the road, I looked up the bluffs surrounding our lake and saw a small fire. I kept singing, running, and overthinking. When I finally made it to the rest of my group, I felt proud of myself, knowing I had overcome one of my biggest challenges. "Maggie's here!" my friend yelled once I made it up the hill. All of a sudden, people came running out to congratulate me on making it to this point. "We all thought you would be crying!" At that moment, I realized that these people knew me better than anyone else on the planet. They had seen my flaws, my strengths, and every time I fell down, I knew that they would help me stand back up.

While my Generalized Anxiety Disorder amplifies itself during high-stress scenarios, I have continued returning to camp. In the summer of 2025, I worked ten weeks of traditional, overnight camp, at just 17 years old. Devoting myself to the hard work that comes with being a camp counselor means that I will always put my camper's experience first, ensuring their safety and well being is my top priority, despite the dangerous situations I was put into as a camper.

Groups before me, and groups after me have had positive experiences with the same camp traditions. Because of this, I know that my anxious encounter was not because of the program, but because of the irresponsibility of the people I trusted. I have made it my goal to be a better counselor than those who came before me, and to prioritize my campers emotions before I put them in dangerous situations.



Absolute Minimum

Author's Note: This is a true recounting of a day in my life with senioritis at OWL. I wrote this story based on a specific day I experienced.

Written by Arlo Northrop-Kiel

"Arlo," the teacher calls out. My heart sinks, I was just called on to give my opinion on a question I don't have the answer to. While the teacher had given us ample time to read through a text, I had instead decided to play the New York Times Mini crossword. "Uhh," I try to stall. I lean over to my friend next to me, hoping they can help me out. They respond with an apologetic head shake. I give up, I tell the teacher I don't know. They look disappointed, but at this point, they've gotten used to it. I get the slightest feeling of embarrassment from my response, but it quickly fades, and I find myself going right back to distracting myself from the lesson.

"There's no way I get called on twice in the same day," I think to myself, knowing that's not how statistics work, and I'm actively falling for the gamblers' fallacy. In hindsight, this seems like terrible decision-making, given that I just faced direct consequences for slacking, yet I find myself unwilling to stop. I've been going through school like this for a little over a year and a half now, just trying to get through each class while working as little as possible, and it's been slowly getting worse and worse.

Senioritis is the term used to describe the lack of motivation and drive felt by many students during their senior year of high school or college. While often considered a joke, senioritis can be very detrimental to a student's academic career, leading to losses of scholarships or admissions from colleges and universities. Senioritis often develops partway through senior year, typically after college applications have been sent in. Because the finish line is so visible, students tend to lose their academic drive, believing that now that they have sent in applications or received admissions, they no longer need good grades. While there is some truth to that belief, it is also a harmful idea because it can very easily be taken too far.

Eventually, the bell rings, and I move on to my next class. As I sit down, my first thought isn't what I'm gonna work on, it's what I can do to distract myself. At this point in the year, I've developed a solid repertoire of games and time wasters. My current favorites are the New York Times games, specifically the mini crossword, but because there's only one a day, I've started paying for the premium games subscription to unlock the archives. I take my iPad out of my bag and open it to see my games already pulled up from last period. Just then, the teacher calls for the class's attention. I pause my game and briefly glance up. They say that with the end of the quarter rapidly approaching, it's very important that we turn our work in, and that they're missing a significant amount of work from a large number of people. I turn my head to look around at the class, knowing I'm exactly who they're describing. I get a bit of comfort knowing I'm not the only one behind, but I still tell myself that I should probably get started so I'll be able to graduate. I decide to make a to-do list. I log into Schoology and figure out the absolute minimum I need to do to pass all my classes. After I see how little is required of me, my nerves quell, and I feel slightly accomplished for making a to-do list. I decide to give myself a break because of my hard work, so I turn on some music and relax until the period ends.

Senioritis is an incredibly widespread phenomenon. It has only grown more prevalent as time has passed. There have been many studies all across the country on the causes and effects of senioritis. At OWL, senioritis is incredibly common. When asked if he believed that all seniors experience some form of senioritis, veteran teacher Leo Bickelhaupt said that he believed so, but that "It affects them in a huge range, though." One senior, Titus Galbreath, claimed he was on the far end



of the spectrum and was "absolutely" experiencing senioritis. Titus claimed that he didn't think he'd done any work in the past two months, and also thought that his senioritis was caused, at least in part, by OWL's lackadaisical grading system. He stated, "OWL makes me procrastinate so hard because I can turn in an essay five weeks after the due date and still pass the class." This claim was backed up by junior Carlos Amaya, who chimed in by saying, "Been there, done that." On the other hand, Leo doesn't exactly see OWL as the issue, claiming "senioritis just finds its way around," and that back when he was in school, he faced a much stricter grading policy, yet still saw seniors slacking towards the end of the year. It is often easier to blame external forces for one's own shortcomings, but understanding the real issue is a very important step in overcoming these hardships.

As I approach my fourth-period class, I feel any energy I may have had in the day start to wane. I started to feel really tired, which was strange because all I tend to do is sleep. Whenever I have time to myself at home, I spend it lying in bed, thinking about all the things I should be doing, yet I never do them. I feel like senioritis is seeping into the rest of my life and ruining everything for me. As I'm sitting in math class, ignoring the lecture, I start thinking about how pointless I feel. I think about how I coast my way through the school day just to get home and sleep till the next day to do it all over again. I tell myself that I'll be better once I get to college. I'm almost out of high school and just need to keep pushing for a little longer. But then I start to second-guess myself. Before I can think too hard about it all, the teacher comes and hands back the tests we took last week. I take a look at my sheet, and I see a 62/100 in big red ink at the top of the page. I didn't pass. Math was always my favorite subject. I used to be excited to go to math class, and I would pride myself on my performance on tests. Before senior year, I had taken every math class offered at the school, aside from AP Calculus and college readiness math. Since calculus wasn't being offered in my senior year, I was forced to take college readiness math. I was a little disappointed, thinking how easy it would be for someone like me to take this remedial course, yet here I am, failing a test I would've been able to ace only a year ago. I start to lose hope in my future, wondering whether I'll be able to graduate or not. Then I snap out of it. I try to scrounge for any motivation I can. I think about how I'll be able to play frisbee in college, I think about how beautiful Washington will be, and I think about how nice it will be to be able to get away from my life in Minnesota. I begin blocking out which projects I need to do when, giving myself a concrete schedule and spacing out my work so it feels less overwhelming. When I get home, I bear down and try my best to pound through the work, making sure to take breaks when I start losing motivation, so that the work I am putting out is at least of a somewhat decent quality. As the end of the quarter approaches, I do end up accomplishing most of what I set out to on my to-do list, and while I would not be able to say that I am happy with the grades I get, I am still able to make peace with them. I tell myself this next quarter will be different, but with the pressures now lifted, I can never be sure.

Though senioritis may seem like an unavoidable obstacle, it is still very possible to lessen the impact it has on you. A common point of advice given by resources for senioritis is to establish a support system, whether that be through your family, friends, teachers, or some other form of connection. You should have a place to go when you need help. It can also be very helpful to plan, make a to-do list, schedule when you have time to do your work, and what work you will do when. The most effective solution to senioritis is also the most difficult one to overcome: you need to find a solid motivation to keep pushing yourself. Up until this point, you have had college admissions, academic drive, or maybe just the desire to impress yourself to keep you motivated, but with those things fading, you need to find a new motivator. Once you can find something that keeps you motivated, senioritis will no longer be able to hold you back, and you'll be able to find success and fully prepare yourself for college.

As I've dealt with senioritis, it has become an integral part of myself. Because it has been so long, it feels as if it is just a part of me, as if it is something that I can't control. Even though I often joke about it, I hate the fact that I think like this, I hate how I put off anything that's even slightly difficult, and I hate how it has restricted my opportunities for the future. I was rejected from my dream school, I missed out on scholarship opportunities, and I have lost motivation and drive for my future. However, I now have a solid goal for college: I need to be able to find the motivation to get things accomplished. I need to be able to find what interests me, and I believe that the massive change in environment provided by college will help me achieve that goal. Most importantly, I need to separate senioritis and lack of motivation from being an intrinsic part of my life. Once I can do that, I will finally be able to flourish.



Treatment Resistant

Author's Note: The following essay is a true story about my struggle with mental health and my journey in finding effective medication. It was written from a combination of my own memories of the experience, the recollections of my family and others who knew me during the search, and research done into the statistical realities of mental health and medication.

Written by M Lind

Run. Panic. Scream. Cry. Panic. Stop breathing. Breathe harder. Panic. Don't let anyone see. Have someone get help. Panic. There's no problem here. Everything is a problem. Calm down. Panic. Panic.

I try to ground myself, focusing on my surroundings. I'm sitting at a desk in a classroom. There's a computer open in front of me, half-finished lines of code across the display. I'm in the middle of a robotics practice, and I have work I need to do. How can I be expected to do work right now? I can't possibly do work. I have to do work, or else everybody will be mad at me. Everyone's already mad at me. I've failed. I did something wrong and made everything worse for myself and for everyone else around me. I'm sitting at a desk, and everything around me is too big, and my mind isn't my own mind, and everything around me is too small, and my body isn't my own body, and nothing will ever be okay again because this was supposed to fix everything. How could something meant to fix everything make everything so much worse?

Is it worse to let this continue? Or is it worse to go back to the way it was before, with no hope of ever feeling better? My new medication was supposed to help my anxiety calm down, not make it worse! What's happening?

I've struggled with anxiety and depression for most of my life. It began growing particularly bad around the time of the COVID-19 pandemic, in which being trapped at home with only immediate family led to both a creeping depression and the onslaught of anxiety. As time went on, this just continued to grow, reaching a point of crushing depression and regular panic attacks. Finally, in my junior year of high school, my parents made the decision to help me find medication treatment for my mental illness. I wasn't aware, however, of how much that treatment would lead me into a downward spiral of worsening mental health.

Unfortunately, I was far from alone in my struggles. Over 1 billion people worldwide struggle with mental health conditions, with anxiety and depression most common among them. An estimated 20% of adults and 17% of children are affected by mental health issues, a number that's growing– the number of adults with a mental illness increased by nearly 30% from 2008 to 2019 alone, and that's before the COVID-19 pandemic that worsened so many of these issues.

For those struggling with anxiety or depression, the most popular form of medical treatment comes in the form of medications, specifically antidepressants, which is the sort of thing I was hoping to obtain. Though antidepressants generally reduce mental health troubles and suicide risk, there are always those for whom the medication approach backfires. In some cases, people under 25 may have an increase in mental struggles and suicidal thoughts when they start taking a new medication. In fact, 34 to 46% of patients with Major Depressive Disorder (MDD) are classified as "treatment-resistant," meaning that antidepressant treatments may have low or zero effect. As I was about to learn,

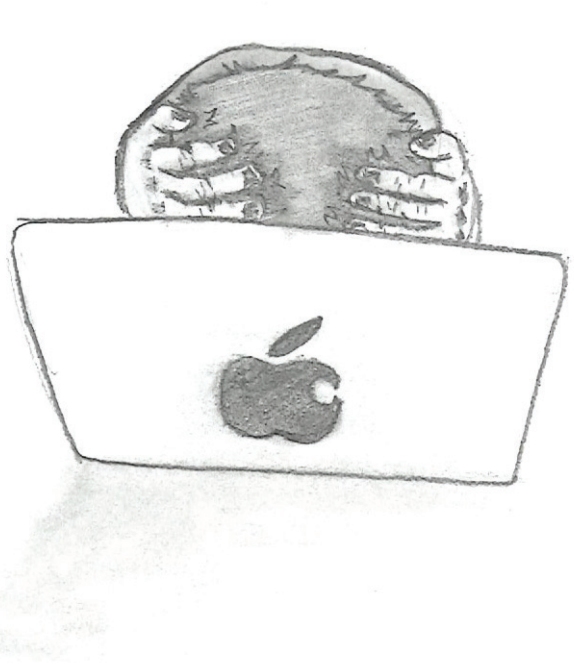
"How could something meant to fix everything make everything so much worse?"

"treatment-resistant" describes me quite well.

Once I finally received the news that I'd be meeting with a doctor to receive treatment for the anxiety and depression that haunted me, I was elated. I dreamed of being able to take a pill each morning and avoid panic attacks, avoid depression, and just feel like a normal person. Realistically, of course, I knew it wouldn't be that simple, but I didn't anticipate just how much the plan would backfire.

Meeting with the doctor, I was given a prescription for escitalopram, a medication used to treat MDD and Generalized Anxiety Disorder (GAD). However, when I began taking the medication, I just felt all the anxiety becoming worse and worse.

Nothing felt okay. My mind felt wrong, like it wasn't my own. Panic attacks hounded me constantly, and I spent most of the day in tears. The doctor, howev-



er, insisted that I just needed to give the medication a few days before it would start working effectively, and because she was the doctor, I agreed. Those few days were among the hardest in my life, as the stress brought about by the escitalopram increased in intensity the longer time went on. Eventually, unable to bear the terror I was in nearly constantly, we reached out to the doctor to tell her the meds weren't working.

The hope was that I'd be prescribed a smaller dosage of meds, or perhaps some different meds that might work better, but instead, the doctor told us to double our dosage, telling us that there was no genuine reason I would react negatively to the medication, and that I must have been lying or greatly exaggerating what I was going through. I, of course, reacted negatively to this, and my parents and I outright refused to double the dosage. After all, if I was in this much turmoil at my current dosage, what would twice as much do to me? The doctor heard our refusal and informed us that there would be only one other option: outright hospitalization.

In reality, hospitalization should be far from the only solution. Antidepressants are known to have adverse effects, sometimes the opposite of what they are meant to do. In fact, the US Food and Drug Administration required that all antidepressants carry black box warnings, the strictest prescription warnings the FDA ever requires, for their temporary side effects (which can include increased anxiety and depression) when the medication is first started. What's worse, some people have genes making them overly sensitive to anxiety and depression medications, meaning these side effects might not go away.

If side effects persist, most doctors would recommend changing the dose, trying a different medication, or adding a different medicine, as sometimes combinations work better than single medications. Due to the way that medications alter brain chemistry, it can be extremely harmful to suddenly add or drop a medication. Healthcare professionals need to be consulted in order to gradually get onto or off of a new medication. In general, healthcare providers are a major part of the process of getting a medication that works for you.

Unfortunately, finding a good healthcare provider to handle medications is another massive challenge, barring the way to treatment for many individuals struggling with mental health. Only 28% (less than a third!) of the U.S. population lives somewhere where there are enough psychiatrists to meet the needs of the population. The majority of states have under 40% of the ideal number of mental health professionals required to meet demand. Plus, over half of all U.S. counties have no practicing psychiatrists, forcing people in those counties to travel further for the chance to receive treatment. Plus, even if mental health professionals are accessible to patients, providers often may not include a patient's insurance, leading to extremely high out-of-pocket payments to get the care, which discourages many from seeking care at all.

I was lucky to find a healthcare provider who could supply me with the treatment I needed in the first place. Unfortunately, that luck did not extend to the quality of that doctor's care– hospitalization is a necessary step for many, but certainly not for me after a bad reaction to one medication.

"The doctor heard our refusal and informed us that there would be only one other option: outright hospitalization."

Thankfully, my parents agreed with me that hospitalization was taking things too far. When we saw that the doctor was unwilling to back down, we returned to the search, eventually finding a new psychologist to prescribe medication. Thankfully, this doctor agreed with us in early meetings that the earlier doctor should have been more willing to find other options.

Up until this point, I was terrified that there was something inherently wrong with my ability to process medications; that my struggles with anxiety and depression would continue indefinitely. The new doctor, however, assured me that it was not the case; that I could find other meds and smaller doses in order to achieve something that worked better-- and it didn't just have to be trial and error, either.

After my first virtual meeting with the doctor, we drove out to their physical office in order to take a pharmacogenetic test. After swabbing my mouth, a sample of my DNA was sent out to a laboratory to be analyzed. It would take some time, but once completed, the test would tell me which medications I was genetically coded to react strongly to, which I'd react weakly to, and how much I should take to achieve maximum effectiveness without having extreme side effects. In the meantime, however, all I could do was wait.

"Panic attacks became the exception rather than the norm; I was able to enjoy life substantially more than I did before."

Pharmacogenetic testing is an important tool that many psychologists can use in order to determine the correct medications to prescribe for a patient. By taking in a sample of a patient's DNA, a lab can determine how their genes will cause them to react to different medications, determining which patients are treatment-resistant to certain meds. This is hugely helpful for anybody needing treatment for mental health conditions, so long as it can be reached.

However, many barriers stand between people and the treatment they need. Getting treatment only helps if you can find the right doctor for you, and that's assuming you find a doctor available at the same time as you are, who takes your insurance (assuming you have insurance), who isn't physically located too far away… and assuming you even know to look for help at all.

Society perpetuates the spread of social stigmas, discouraging people with conditions like anxiety and depression from seeking help. There's the idea that antidepressants don't "help" the issue at all, and merely disguise the symptoms. There's the idea that people who take antidepressants are weak or failures or have something wrong with them. Most of all, many people don't take medication for mental struggles because society tells them, and they themselves believe, that they should be able to get over it on their own. Especially for depression, people can suffer for long periods of time trying to manage it on their own, and still internalize that it is their fault for not being able to get over their depression. Just stop being so sad, right? But of course, depression isn't like that. It's not something you just snap out of, and treatments like medication can help you recover much faster and easier than trying to get through it on your own.

I had to deal with many of these factors along my journey. Finding a doctor that didn't fit my needs, which came only after struggles in finding a doctor at all, which in turn came only once my family and I saw past the social stigmas encouraging me to "just get over it" on my own. I was lucky to find a better doctor, and as it turned out, to find treatment that worked well for me.

When my pharmacogenetic test results came back, they proved what I was suspecting: that I am treatment-resistant to most forms of antidepressant medication. I react overly strongly to many meds, including the one that the first doctor had prescribed. The test was able to show me better options; medications I wasn't as averse to, that I was able to take in much smaller doses. And the best thing was, these helped.

None of my meds "cured" my anxiety and depression –that's not something a medication can really do-- but they certainly made it a lot more manageable. Panic attacks became the exception rather than the norm, and I was able to enjoy life substantially more than I did before. That's not to say that it was the end of my struggles. For instance, there were legal issues keeping my prescription filled once I reached legal adulthood, and private struggles my doctor faced in her own life often made it harder for her to contact me and keep my meds coming, but switching to the new doctor was a major milestone. Though the effort to obtain and keep medication would continue to be an important matter of stability, it was no longer the matter of survival that it had been before.



Time Warp

Author's Note: The following is a true story based on my personal experiences with depression; I have been formally diagnosed with ADHD, bipolar depression, and severe anxiety. Therefore this doesn't apply to all people struggling with depression. I wrote this story from a compilation of memories from over the years, medical accounts to back up my claims and explain more in depth what I was experiencing, and how to identify depression symptoms yourself. If you are in a dark place please talk to someone, don't let it fester.

Written by Maren Sletten

You are sitting at a table, synthetic wood patterning on top, the sides painted black with a bumpy texture to it. The table legs are metal, the chair you are in is plastic, and no matter how you move you can't seem to get comfortable, especially when you are seated right in front of the window and the heat from the sun outside warms the seat beneath you until your sweaty thighs are sticking to the seat. The papers in front of you have average elementary level questions on them and you fill them in with pencil, crayons, and colored pencils, waiting for the clock to tick down while feeling like you are being cooked alive.

Everything is too slow, your palms are sweaty and you just feel drained, everything is too quiet, then it's too loud, too fast, too slow, achingly slow, excruciatingly slow, you just want it to end. You count every ring of the bell but you can't read the analog clock in the room. Your perception of time skewed, you watch the sun and the leaves blow outside of your classroom with a direct line of sight to the blacktop. You close your eyes trying to will time to move faster because you can't wait to get home.

This is what elementary school often was for me. I think as a kid you don't really know what to call it. Those days when you are extra down and the days, weeks, and months seem extra slow and excruciatingly painful as you wait for the relief of going home, only to sit there for long stretches of time without any way to gauge how slow or how fast time is actually moving. It's those times when you wish you could read a clock to at least know time didn't pause all together and aren't going to be stuck here feeling crummy for any longer. You are going through the motions, carving a path without a compass to lead the way, no map to guide you, and no words to describe how you feel.

It's 2010. I can't stay still, I don't like what they are teaching, time is moving too slowly. I am impatient, full of restless energy, I can't say I don't like this, I can't communicate how I'm conflicted – so I'm skipping class, running around the school building, avoiding teachers, reading in the library, falling behind and picking on other students.

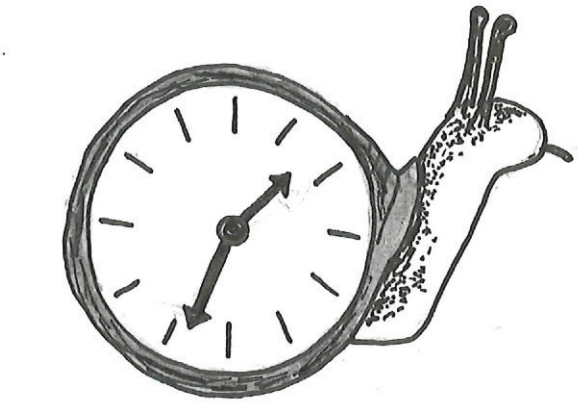
As a kid I didn't have a good word for how I was feeling. On top of my undiagnosed ADHD and my parents divorce fresh in my hyperactive mind, I didn't really think about putting words to my problems. I was maturing way too quickly to really care about labels. I was trying to process everything going on at home and handle it to the best of my youthful ability without a therapist or any way to communicate how I was feeling with the adults who seemed to just let me down. This of course created a strange complex in me where I didn't ask for help until the last minute, and even then, the last minute might not be enough time to fix the already curated mess, and I sure as hell didn't know that I was experiencing it. All I knew as a kid was that time slowed down some times. Which doesn't make any sense because it doesn't. Time doesn't just "slow down," it keeps chugging along no matter how much we want it to freeze in the best moments and speed by in the worst. And the day I described is the best way to put it into perspective for you. My elementary school career was rough. I was admittedly a bad kid– I didn't know how to voice how I was feeling, so my only way of communication was lashing out at students, faculty, my parents, etc. I was voiceless because I didn't have the vocabulary I have now to communicate, and the only words I had weren't enough.

I remember the first time I pointed this out to someone else vaguely. It was one of these weeks when time was moving slowly when I noticed it begin to speed up again. I had formed this theory in my head that time just fluctuated, there was no reason behind it; there were just some days that were slow, weeks that were slow, months that were slow, even though I didn't have a good grasp on time and I could barely tell you what day it was without the aid of an iPad. But as I went through the motions, this day felt different. Time was speeding up again, class was easier and less boring, re-

cess seemed to come sooner than lunch, we were doing our last circle time before the bell and I felt a rush of relief as the bell rang. As we began our march through the school towards the gym for parent pick up, I slipped through the line and I found my friend KC. They were in a different class, and I wasn't supposed to get that far from my homeroom teacher, but it was easy to slip through the waves of students and find my taller classmate among the swirl of bodies around me. We walked side by side. I was closest to the road on the uphill trek, and, despite the fact that sometimes it took forever to get up the incline because of hold ups or "time being slow," today it seemed faster.

We started at the bottom, but as time flew by we were half way up the hill, and I was distinctly aware that it hadn't been this fast in the past. Time had been moving slowly, I realized. I hadn't noticed it before, how the days dragged and the weight settled around me, and as I held KC's hand I said, "time's speeding up again." We had been chatting amicably up to this point, but we had reached a stand still where we couldn't talk about our days anymore and I had just blurted it out to fill the silence. As we discussed "time speeding up," I brought up how I had realized it was happening, that sometimes school just drags and makes everything seem so much slower than it is and once it started speeding up again, I started to feel better, weightless, happy.

At the time it was the only explanation I had for the strange acceleration of time I was experiencing. I couldn't explain it on a fundamental level, it was just something I felt and experienced so I continued, day to day, putting up with it without a thought. However, KC couldn't relate and in hindsight I now realize what I was going through. I didn't have a name for it so I couldn't ask about how to handle it, I couldn't express how I felt about it at risk of being let down, and finally I didn't care anymore. I just let it go, dealt with it, gave up finding words to fix it, just fixed it the only way I knew how—ignoring it. It took me a long time to mellow out, and even then I still didn't have the words to express my feelings or emotions properly.



How does a kid know they have depression? "Occasionally being sad or feeling hopeless is a part of every child's life. However, some children feel sad or are uninterested in things that they used to enjoy, or feel helpless or hopeless in situations they are able to change," according to the CDC.

Depression forms differently in every child, every person. Sometimes you can't catch the symptoms from the outside. Depression isn't cut and dry. There are two main types: major depression and persistent depressive disorder, but there are many, many more that manifest in many different ways with different symptoms that make them harder to identify. Because of this I can't give you a direct definition of depression. I can list symptoms from the NIH like, "Persistent sad, anxious, or 'empty' mood, feelings of hopelessness, irritability, or guilt, loss of interest or pleasure in hobbies and activities, fatigue, lack of energy, difficulty concentrating or making decisions, difficulty sleeping, waking too early in the morning, or oversleeping, changes in appetite or unplanned weight changes—" and many, many more. And as time passes and our medical system develops, we find more and more symptoms and ways to tell, but it's still not easy. Depression has also become more common over the years. According to CDC findings, from 2021 to 2023, the prevalence of depression in adolescents and adults age 12 and older increased from 8.2% to 13.1% from 2013 to 2023, with 87.9% of adolescents reporting depression symptoms, and depression also being prevalently higher in females (16.0%) than in males (10.1%). This shows us a clear outline of just how common it is for people to experience depression symptoms (though this is just the people who know it), now that mental health is more talked about and acceptable in society.

Time would seemingly speed up again, everything was getting done in a timely manner, I wasn't stressed all the time, over thinking, panicking. No, instead I was what I had deemed "normal." But the thing with depression is it's not instantaneous, I don't know what "triggers" me. I slide into my depression, a gradual fall until I haven't even realised it's happened. One second I'm normal, the next I'm slowly wasting away without even clocking it, then finally I'm feeling better and realizing I was just going through it. It had just become a thing

I dealt with. I think the word depression was thrown around me a bit, and with my un-restricted internet access I saw plenty of people online talking about how they knew, and how they processed it, but I was too young to think, "Hey I have that!" especially when I didn't even really realise when my depressive episodes were happening.

Life kind of just moved on. I first heard the term Bipolar Depression after a big burnout that landed me crying in a school hallway tucked between my friends. I didn't want to do school work, I didn't have the motivation for any extracurriculars, I didn't hang out with anyone or put myself out there to find new friends after a big friend group dispansion, and one of the days when time had slowed down, I realized how lonely I was.

"Everything is too quiet, then it's too loud, too fast, too slow, achingly slow, excruciatingly slow, you just want it to end."

I sat in my history class post COVID with bad art block. The school day was winding down, we had no work to do, and I was silently staring at my table listening to a group of girls talk about their plans for the weekend. In that moment, silently staring at nothing, sitting alone with nothing to do but listen, without anyone to talk to, with no one I could really call my friend but an upperclassmen I wouldn't have classes with until much later, and some one in my grade I had no classes with, I felt lonely. Truly lonely.

I had no plans for what to do with my weekend. I didn't have any friends to hang out with and all of the people I was amicable with had their own friends to hang out with. I was lost, feeling strangely empty and it felt like time dragged on forever, constantly tortured and unable to leave until the bell rang. I felt jealousy that they had more of a life than I did, but I had no real motivation to interact with other people, reach out, communicate how I was feeling, or open myself up to have friends. I was between a rock and a hard place feeling solitary. How was I supposed to speak up when I didn't have the words? How was I supposed to process what I was feeling if I didn't know what to call it? How do you tell your therapist that you have no friends to hang out with after school, you can't make plans cause you can't drive, so any plans you make need to be through your parents, and that the only active numbers in your phone are all your family which makes you feel even lonelier?

You can't. You feel jealous, and angry, and frustrated, and empty without a word to put to it so you ignore the feeling and go one with your day, wading through piled up school work that you weren't motivated to do, speaking with people in passing and hoping that you aren't so lame you'll never have any friends, and then push that empty feeling deep, deep down until days start moving faster again as you finally feel like you are achieving something and realize you need to be happy with yourself before you can truly be yourself and that means taking time to get to know me. How do you get to know yourself? Well you never truly do, you just focus a bit more on how you interact with the space around you, the people you know. You stop being performative, finding your own interests, no matter how cringy it feels. Finding out how to be a person outside of your family, your self loathing, and the mask you put on to seem normal for all of those strangers you don't know. You still feel empty, but less alone. You make friends and fill those holes yourself, find ways to express yourself without feeling like a dork, make those friends smile, laugh, try and contribute something while still feeling inadequate.

You think it's good, it feels good. You are motivated again, you are ready to put effort into your classes, you aren't angry with yourself, or your parents, or your lack of a social life because you kind of have one and now you are sitting in yet another history class with a dude in your grade you think you could consider one of your closer friends when the cracks start to show. Time gets slow, you get antsy, you can't make any commitments, or hang out with friends, it's getting colder. "Seasonal depression," your mom jokes, but you feel lost, drifting, un-aware of who you are. That person you took the time to get to know over the summer? Once again lost to a mask, a performance that never ends, you are drained, tired, no matter how much sleep you get, no matter how hard you try and escape reality you'd rather be in bed rotting away without any care for the world or your responsibilities. You think it's burnout, you think you are just stuck in a rut. Maybe it will pass?

Finally I made a decision, I talked to my therapist. It took me time to bring it up, but I managed to find the words. It didn't matter that the year was ending, or that you had just had even more drama, the thing you were trying to avoid by removing yourself from social circles, the reason you stopped interacting with fellow classmates. You let your walls down, stopped protecting yourself, felt safe with who you thought were "your

people." But it all fell through again. You are still struggling with depression. It's a whole new level now. You can't find the motivation to shower, or get out of bed, or do school work because you have lost any care about your academics or social life. You are too tired, too drained, to do anything.

My therapist talked me through it and reminded me that the end of the school year was on the horizon, that I would get some time to myself to work through it. The stress from school work was because I had been procrastinating it. I would be fine, just two months and then I would be fine.

She finally said she had me diagnosed with Bipolar Depression. Despite all I was going through it felt like a breath of fresh air, relief finally having the words to communicate what was "wrong" with me, why I was feeling like this. I wasn't "broken." Enough people had the same diagnosis that it could be a diagnosis to begin with! That means there are ways to handle it, work through it, figure it out and learn to live with it, learn to make it manageable. Despite this I kept drifting… and then I struck gold. Getting away from the drama of my old friends, getting away from the anger and hatred for one particular person, and spending more time with the upperclassmen I clicked with in sixth grade. I began to heal in increments, hang out with new people again, felt stable enough to not feel that constant need to protect myself. I reached out yet again to make new friends and I did; the best friend group I have had yet made up of amazing, smart, intelligent, open minded people who I could bounce ideas off of and connect with, who didn't care about my interests but were willing to hear about them, who wanted to hang out with me outside of school. I started to feel like a teenager again instead of a kid who grew up too fast with too much on her shoulders. It was easy to fall into the crowd, to integrate even when I felt unfit to be a part of them.

I put myself down for a bit in the beginning, I felt they were so much smarter, they were more interesting than me, more driven to hang out and spend time with each other. What if I reached one of those slow points when I couldn't put the time in? What if I got overwhelmed? What if I wasn't good enough to be hanging out with them? Of course that wasn't the case, but I didn't think highly of myself, still didn't truly know who I was, still wasn't happy with the person I'd become, still couldn't fathom people liking me unfiltered. But I got used to it, got acclimated with them, saw flaws, began to better understand them, and the make-believe hierarchy I had formed in my head fell away. I was a person just like they were. It warmed my heart to know that I didn't need to fight to stay afloat in the group.

But just as it was all getting good again, life struck; quick, hard and ruthless. All of that progress became unfounded in the face of my uncle's killing. His death set off my depression again, and I had to find a way to admit to myself that maybe I am depressed. Maybe this is part of it, this sadness that I was ignoring, pushing to the side, procrastinating my grief and jumping straight to anger as a defense mechanism.The NIH reports: "Major depressive disorder (MDD) is diagnosed when an individual has a persistently low or depressed mood, anhedonia or decreased interest in pleasurable activities, feelings of guilt or worthlessness, lack of energy, poor concentration, appetite changes, psychomotor retardation or agitation, sleep disturbances, or suicidal thoughts." MDD is usually paired up pretty closely with grief. Of course grief is complicated to the point of being one of those things that doesn't have an exact answer for what it is; there are theories, displayed symptoms that usually align but after a death, grief tends to manifest differently person to person. For example, the five commonly accepted stages of grief (denial, anger, bargaining, depression, and acceptance), doesn't apply to every person. Because of this we don't have a fully defined definition of grief, or a good way to deal with it. There are ways that we can deal with it. But grief can go awry- the symptoms so overpowering and strong it can sweep you up in the waves of depression.

World Psychiatry says that "Complicated grief, a syndrome that occurs in about 10% of bereaved people, results from the failure to transition from acute to integrated grief. As a result, acute grief is prolonged, perhaps indefinitely." Major depression amplified by grief makes complicated grief. Complicated grief shares similar symptoms with major depression, which can make the situation worse, causing a sense of desperation.. There are many ways to lose yourself to the symptoms of depression, but when the symptoms are exacerbated by complicated grief it becomes harder to manage. As World Psychiatry says, "Bereaved individuals with complicated grief find themselves in a repetitive loop of intense yearning and longing that becomes the major focus of their lives, albeit accompanied by inevitable sadness, frustration, and anxiety. Complicated grievers may perceive their grief as frightening, shameful, and strange." You may learn to live with it, you may have adapted to it, but complicated grief only makes it worse.



Crab-nitive Behavioral Therapy

Author's Note: The following is a partial account of my personal journey with Generalized Anxiety Disorder. I interviewed my classmate, Alva, for her experience and perspective on anxiety as well.

Written by Neve Dawson

I was seven when I went to therapy for the first time. That office was designed specifically to neutralize my nervousness, and it worked pretty well. A dark wall of mahogany shelves filled with books, papers, and toy-filled wicker baskets on my left, a large window on the right wall with curtains blocking most of the light; shafts sneak in and speckle the furniture in a loose circle in the middle of the room. On the back wall, there's a desk and monitor setup, standard of a practitioner's office. Cool browns and greys surround me as I settle into the springy couch opposite my provider, my parents on either side of me. My eyes are wide, taking it all in curiously, despite my trepidation.

My provider's smile is small, but kind as he asks for my name. I give it. His eyes are attentive but patient when he asks how he can help me today. I don't know. I can't say anything. I look to my mom, who keeps all the records, who arranged this appointment. She launches into her notes on my behavior as if on cue, and the man across from us listens intently. I don't talk much this session. At the end of the session he gives me a cheap, bright-colored plastic slinky, and I'm won over.

Truthfully, I don't really know what we're doing here. I'm too young to know that something is wrong; all I know is that my mom made an appointment after I freaked out over crabs.

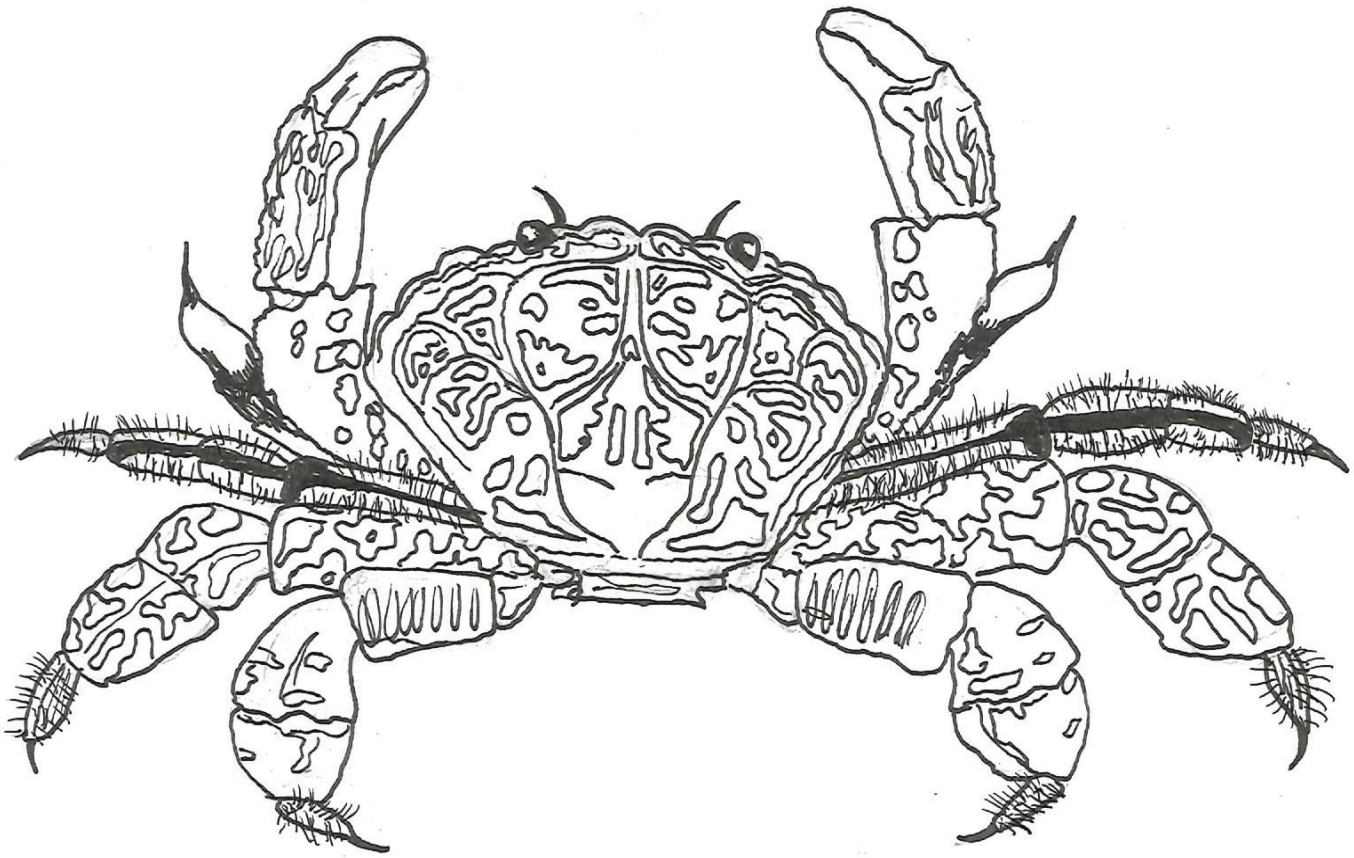
It only takes one or two more sessions before I'm diagnosed with Generalized Anxiety Disorder. GAD, as the name suggests, is an anxiety disorder that causes uncontrollable worry about several aspects of one's life. As per the Anxiety and Depression Association of America (ADAA), "GAD is diagnosed when a person finds it difficult to control worry on more days than not for at least six months, and has three or more symptoms. This differentiates GAD from worry that may be specific to a set stressor or for a more limited period of time." Those "symptoms" could be a variety of things, but irritability or nervousness, feeling on edge, feeling helpless, difficulty concentrating, difficulty sleeping, and even physical symptoms like gastrointestinal issues are common. GAD is characterized by irrational fears, looping negative thought patterns, and a prevalence of cognitive distortions and intrusive thoughts.

GAD affects about 3.1% of the U.S. population, or a little over six million individuals. The vast majority of cases— around 65%— are considered mild or moderate, like me. Still, less than half of afflicted individuals (43.2%) seek treatment. Most with mild and moderate GAD can lead normal lives if they simply learn what their stressors are and avoid them. Unfortunately, many triggers are, to an extent, unavoidable, and the worry of the worst-case scenario can worm its way into everyday life.

Even when consciously avoiding triggers, GAD will at times make itself loud and clear. The definitive instance that pushed me into therapy was one such event: a panic attack.

"My thoughts wouldn't quiet down, and a certain ritual of nightmares and fear ensued after the lights went out."

A few weeks before that initial session, I was watching a nature documentary-esque show, whose whole gimmick was that all the animals they featured were really dangerous and could kill you. They did short features on a bunch of animals and ranked them against each other arbitrarily based on deadliness, in WWE-level dramatic fashion. A feature came on about a species of small crab with neurotoxins that could easily and quickly kill a person if eaten— neurotoxins with no known cure. It was maybe a five-minute segment of the show, but it was enough to send little me into a spiral. I started hyperventilating, pressing hard on my throat and biting my tongue (numbness in the mouth and throat was one of the neurotoxin's symptoms), and panicking further if I didn't feel pain. I felt like I was going to die. It was animalistic— I wanted nothing more than to find a hole to crawl into, and press my back against the dirt until the feeling went away. I was able to calm down eventually, but my irrational fear that a little toxic crab found in transoceanic tropics had somehow crawled



into my store-brand wheat bread was enough to prevent me from stomaching anything for the rest of the day.

This was my first panic attack, but it was nowhere near the first symptom I had. I had trouble sleeping. I would get scared in the dark— not scared of the dark itself, but how alone it left me. My thoughts wouldn't quiet down, and a certain ritual of nightmares and fear ensued after the lights went out, which, after over half a decade, no one in the house wanted to live with anymore. I was too young to track the series of doctor's calls and professional appointments my mom made, but all I know is I ended up in therapy after that.

GAD is a pretty broad diagnosis, and it's often accompanied by lots of smaller cognitive issues or more specified fears. While dealing with GAD, two big parts of my experience were Separation Anxiety Disorder (SAD) and cognitive distortions. SAD entails a lengthy list of symptoms that can be summed up as the fear of being apart from home or a loved one. Crying or panic attacks at the notion of being left alone, constant worry about the death of a loved one, or something bad happening when you're out and about. This fear of being alone was what kept me up at night. Cognitive distortions can be thought of as different "lenses" through which you interpret situations, and all of them are part of negative thought patterns. There are plenty of kinds of cognitive distortions, but the one I struggled with the most was catastrophization. Its epithet, "catastrophe," is accurate to the thought pattern.

Take a bad situation. You left your door unlocked by accident when you ran for groceries. Now make it worse. You left your door unlocked, so when you get back home, someone will have broken in and taken all you own. That would really suck— wait, no, what if they're still there when you get back? What if they have a weapon and threaten you? What then? If there's a possibility, even a 0.00001% chance, catastrophization will take that and run with it. My SAD paired devastatingly well with my habit of catastrophization. However, my experience with anxiety certainly isn't the only way it

"It was animalistic— I wanted nothing more than to find a hole to crawl into, and press my back against the dirt until the feeling went away."

can be felt.

My classmate, Alva Healy, agreed to do an interview with me about her experiences with anxiety. She has Social Anxiety Disorder, another relatively common form anxiety can come in. Social anxiety is characterized by fear of scrutiny, judgment, humiliation, or embarrassment to a degree that can make everyday interactions difficult. It can often lead to sweating, trembling, blushing, or, commonly, IBS, and stomach issues.

"My thoughts wouldn't quiet down, and a certain ritual of nightmares and fear ensued after the lights went out."

For Alva, it was a falling out with a friend in 8th grade that pushed her to seek therapy. "I got into a big fight with a friend 8th grade year. It was not really affecting her, but it consumed my daily life. I wasn't eating. I was thinking about it all the time. People were like, 'you look more pale than you normally [do]'… And that's what got me to go to therapy. And that was also when I [realized], 'oh yeah, l probably have more anxiety than the average individual.'"

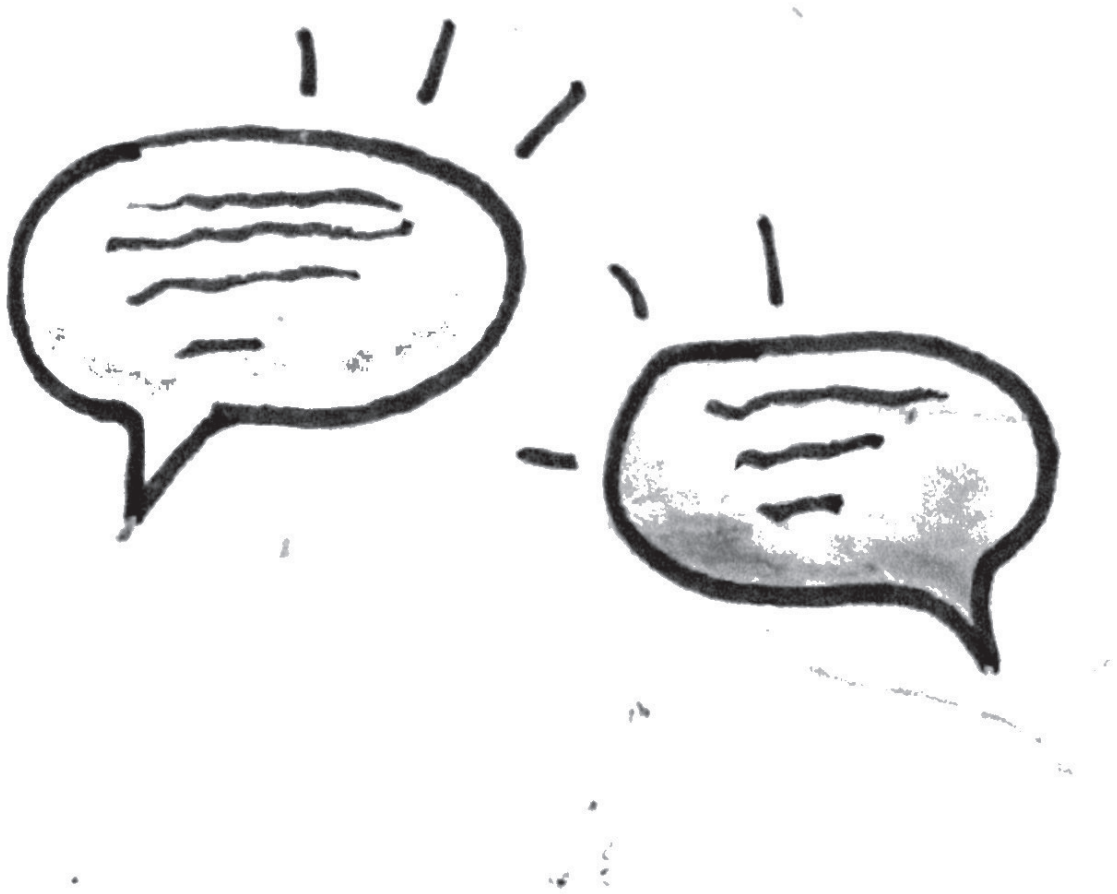
Anxiety often displays itself in indirect ways, being detrimental to mental and physical health. The first step in treatment for most people with anxiety is CBT, or cognitive behavioral therapy. CBT focuses on one-on-one, confidential sessions with a therapist who can help their client recognize their own thought patterns and provide them with the tools to disrupt the cycle. One of these tools— exposure therapy— was an instrumental tactic for me. It intentionally exposed me to the things I feared in small, controlled instances. In one instance, my therapist had my parents leave the room for five minutes as he challenged me to a chess match. I got anxious, but when my parents returned and nothing bad had happened, it proved to my anxiety that I could survive being separated from my parents for a bit. The goal of this kind of therapy is to prove to your brain that the situation you fear won't mean the end of the world.

As time passed, the sessions began to pay off. I began to worry less and sleep better. I was able to be more present, instead of consumed by worry at every other off-putting occurrence. And three years after starting therapy, I had imitation crab for the first time. It was in an otherwise typical cream cheese wonton I had eaten— I noticed the small, stringy bits in amongst the rest of the filling and asked what the unfamiliar ingredient was. My parents supplied: "imitation crab, maybe?" I didn't even register the "imitation" part; all I heard was that I had eaten crab without meaning to. I shut down completely as pressure mounted behind my eyes and my muscles tensed. A kind of lightheadedness came over me that promised a burst of energy and a pending crash. I quickly excused myself and retreated to the basement. I spent maybe fifteen minutes down there, staring at nothing while I tried to detect any sensation of numbness or pain in my body. Nothing felt wrong, but I wasn't able to let the thought go. I spiraled for several more minutes, just barely keeping myself from having a panic attack, before my nerves calmed and I was able to convince myself I would be fine. Still, the experience was a vast improvement on a few years prior: I went from having a panic attack at the thought of crabs to being able to talk myself down from one when I had mistakenly thought I'd eaten the crustacean by accident.

Learning how to manage my GAD on a day-to-day basis is an ongoing challenge. Changing the way you think— which, ultimately, is the goal of treating GAD— takes a long time. I've been going to therapy for about a decade, and I still have to work to acknowledge my new fears and thought patterns, and deal with the way they change according to my ever-shifting life stressors. I'm still an anxious person, and I'm not immune to my anxiety.

I don't really consider myself a survivor of anything in particular. Panic attacks suck, but in no way would I equate my experience to actual survival— it's just my brain telling me I'm in danger. Still, my experience with GAD is something I have to live with, not just one experience to live through. It's a test of endurance. But with support and the right tools, managing GAD doesn't have to feel like you're being poisoned by crabs.

Social



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Blending In

Author's Note: This is a true story about my experience. It contains potentially triggering racist remarks. Many of the memories in this story were difficult for me to think back on, and I only have partial recollection of them; however, I've tried to represent them the best that I can. I intentionally never mentioned the race of these kids and teachers, but they were all white people. I feel like I was always surrounded by that, and in this period of my life, it's how I thought the world always was.

Written by Chloe Best

It was a sunny day at my elementary school. My class was on their way back inside from recess. I was a second grader, too short to even see over the tops of the cars in the parking lot as we walked to the doors. I was talking amicably with a girl I was friends with about her friend's birthday. I can imagine the sound of this moment, with tennis shoes scuffing against the sidewalk and conversations from my classmates floating around me, but I can't remember who else was with me, or what I was wearing, or the girl's face. I only remember she started to say something like "Sorry, you can't come to the party," and I remember thinking I didn't even know this girl's friend, so why would I care, but then, for some reaso,n she felt the need to say why so that I knew: "She's only inviting people with blonde hair and blue eyes." She said that green eyes were okay too, but I didn't have either, so I couldn't come. "Okay," I said.

Interpersonal racism is discrimination or bias between individuals based on physical characteristics associated with racial categories of people. Interpersonal racism is often based on the belief that someone's race makes them morally, biologically, or intellectually superior to another person. White supremacy, the idea that white people are superior to other "races" of people who are fundamentally lesser, was considered a scientific fact by Western geneticists for hundreds of years. This idea of biological race, that different groups of people are genetically clear-cut and that the characteristics of a certain race are inherited together, is a myth that is not supported by human DNA. There is no scientific basis for race, or the idea that someone's race says anything about their behavior, personality traits, or morality.

The roots of this categorical racism can be traced to colonialism. Physical traits like skin color have been used to justify the mass murder and enslavement of so-called inferior African and Indigenous people by Europeans. Today, "whiteness" is still associated with desirability and privilege.

I was born in Roseville, a first-ring suburb of the twin cities metro. While the Twin Cities, which were less than 10 miles away, were extremely diverse at the time, Roseville residents in 2010 were not, with as low as 20% of the 2010 census self-reporting as non-white. I went to a private preschool while I lived there, which, to say the least, reflected those demographics, but I was too young to think that I was meaningfully different from any of the other kids. I knew I looked different from most of them, but I thought of myself as one of them, so it didn't matter to me.

Things changed once I was old enough to go to Kindergarten. My parents moved us to a neighborhood in Saint Paul so that my sister and I could be in the attendance zone of a public elementary school, where I was one of five kids in my class who weren't white.

One day in Kindergarten, my teacher read us a book about the end of Jim Crow and the desegregation of schools under Brown v. Board of Education.

"If you are white, this is not to make you feel guilty," she quickly assured my classmates. If none of it had happened, she explained, then some students wouldn't be with us. She didn't spare us from being singled out in front of the entire class for being different though, she just said our names. Except… she forgot mine.

"What about Chloe?" asked my friend, Mara, who seemed to have picked up on the fact that I looked too brown to have been allowed into an all-white school. Her blue eyes were wide and curious. My stomach sank as I felt the stares of my classmates lingering on me in the silence that followed her question. I hated it. My teacher tilted her head thoughtfully.

After a long pause. "...No, Chloe would be with us," she decided. Wrong, I thought.

11th grader Rahnia Droogsma believes that being a minority sorted into her primarily white school's "gifted and talented" program was harmful to her development as a student because of the spotlight that she felt was put on her for looking different. "I felt the need to sort of switch up my personality and try and sound super

smart, and not make mistakes, because of how I wanted to be perceived," she says. "It was happening at such a young age. I think that way of thinking has sort of followed me throughout the rest of my academic career … I think that especially in schools where there's not a ton of minorities … people try to be less noticed. Whenever I got put into the spotlight, or a teacher called me out for something that I was doing, then I would get really upset, and I would start crying."

It's common for minority students at schools like this to want to avoid being seen as different. When I was in elementary school, I was aware that my appearance made me stand out to the people around me, so I decided I would make it so it didn't matter. I acted just like all of the other kids at my school.

The term "code switching" refers to when someone changes the way they express themself in certain social contexts to fit what they perceive to be appropriate for the environment that they're in. When a person code-switches, they are trying to change the way they appear to other people. A person "switching codes" may change the tone of their voice, how they decide to participate in a conversation, or even their words and speech patterns. For a person who is a member of a minority group in a social context dominated by a majority, code-switching to fit in is often a survival tactic.

As much as I tried to control how other people saw me, I could never change how I felt on the inside. Unfortunately, that didn't lead me to be outspoken whenever I encountered hate. Instead, I avoided it.

I was nine, a fourth grader, in the fifth-grade classroom for math. Our desks were pushed together in table groups for work time. I sat pouring over the activity instructions in my math book. A group of fifth-grade girls I didn't know sat across from me, talking among themselves quietly. My eyes traced across the neatly printed rows of equations on the page, one after another. The hour dragged on slowly. My pencil scratched against the paper in lines and loops.



"I like your braid," one of the girls said.

"Thank you," I said. "My mom made it for me."

Later, I noticed they had stopped working, speaking in hushed tones. They were laughing. I paused my writing as I stopped to listen to them. I picked up that the conversation was about someone they knew - a boy.

In my memory, their mouths form words, but there was no sound. I don't know what they were saying about him. All I remember was the sound of them laughing.

One of the girls suddenly stopped whispering. She pulled the skin at the edges of her eyes tight, turning the corners up. Something rotten twisted in my chest, but I didn't say anything. I felt knocked off balance. The girl tilted her head and squinted at her friends, who laughed and laughed as I sat with my feet rooted to the floor. They didn't realize that their hate could be targeting me just as easily as the boy.

When you are a minority student attending a primarily white school where you are "othered" because of racism or simply because of the way you look, you learn to form an identity separate from your culture in order to survive. "Being teased for things that are out of your control at such a young age harms you. It harms you so greatly that you instantly want to conform to their standards rather than standing up for your own," says author Stephanie Jones in "Being a Minority at a Primarily White Institution."

For me, growing up with this detached relationship with my skin has caused me to struggle with imposter syndrome in my cultural identity. It's difficult for me to connect with my cousins of a similar background to me who had different experiences in school. However, my experience struggling with being attacked by some people and accepted by others regardless of how I presented has taught me that no matter the conditions of my environment, no matter what parts of myself I make palatable or ignore, I can only be me. And even though I find that suppressing aspects of my culture or myself when I'm around different groups of people feels safer than authentically being myself, I continue to work towards accepting the multifaceted aspects of my identity every day.



Don't Bring Your Parents

Author's Note: This essay contains both a dramatized version of a true story and a couple other true accounts about grappling with online grooming and/or abduction. It was written with the intention that readers can learn more about one of the primary issues in the ever expanding digital world, and hopefully glean some advice on how to navigate it.

Written by Xander Gottfried

Imagine for a moment that you are a young, barely teenage girl. You're emotional, hormonal, and conversations with your parents always seem to be fraught with tension. Most of these conversations reach a point where you lose grip of your emotions and the tension bursts open into unwanted confrontation. As one accusation is followed by another you find yourself speechless. You know they're wrong. But as you open your mouth you only inhale a small burst of breath before you quickly shut it again, the right words clouded in rage. You exclaim loudly and storm up to your room, head full of what you believe to be justified anger. Any clear thought is muddled by an explosion of irrationality and the raw tugging in your throat. On the outside you're angry, but right beneath that infuriated and stubborn shell is a little girl sitting all alone in the vastness of her mind with her knees clutched close to her chest– powerless to the bone.

Despite all this, as you enter your room you feel a sense of relief begin to cool your rage—a steamy fog of ignorant bliss beginning to waft in your head. You crash on to the comfort of your bed with phone in hand and tap into Instagram. You feel a pang of happiness in your chest as you open your direct messages with him. The "him" that understands you, the "him" that you know will always take your side, the "him" who will validate how you feel and tell you just how beautiful you are as a person. You may not know him in real life, but you find his tender care and shy withdrawal to be ever so endearing.

"Theyre being jerks again, r u able to talk right now??" You type rapidly then follow up with multiple crying emojis. Barely a second later he responds, "Of course, always for you. What happened?"

You proceed to rant about everything, the tension, the confrontation, the anger, and the real vulnerability you feel deep inside. After a little while of chatting back and forth, you finally ask, "Why don't we just call?? I know how you feel about it but it would be SO much easier if we could just talk."

Despite this reasonable attempt, as per usual he responds, "I'd love to hear your beautiful voice, but I don't think you'd want to hear mine. It's just as ugly as my face…"

"Im sorry, I bet your face isnt ugly at all!"

You pause for a moment, seeing the opportunity, "Id love to talk to you though! Can we plzzz meet at Target??? I promise not to bring my parents!"

"This is him we're talking about. How could someone so caring be a creep?"

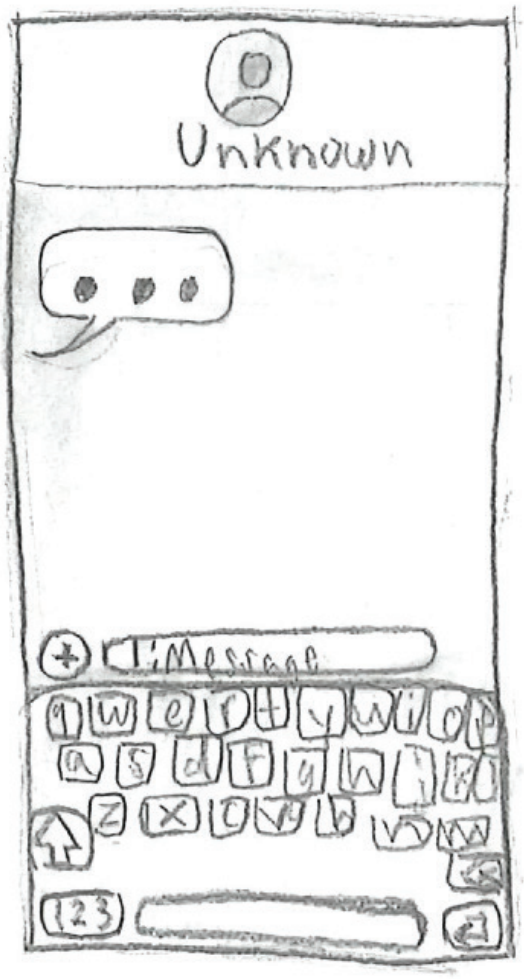
He doesn't respond immediately, but after a second he asks, "And you won't bring any of your friends either?"

"Of course!! I just really want to see you!"

It takes a little more convincing, but eventually he agrees. And upon his message of confirmation, you feel a shiver ripple across your body, a giddy excitement beginning to take you over. However in the back of your mind, you do find his requests a little strange. While your parents are wrong about many things, they did warn you to avoid any "creepy weirdos" online. But this is him we're talking about. How could someone so caring be a creep?

One of the most important things to remember when you're using the internet, from the reviews on a hotel website, to the comments on an adorable cat video, is that you don't know everyone that's giving a five star for the service or leaving doting comments with heart emojis, nor do you know whether or not they are being truthful. Now in such simple scenarios this isn't much of an issue, but when it comes to chatting with strangers through the voice chat of a video game or the DMs of a social media app, we arrive at the complications that have concerned many parents and sparked debates amongst activists, private companies, and numerous governments.

Our story roughly follows the experiences of Cleo, a name chosen to keep her and her family anonymous.



She was a girl of about 12 or 13 years old sometime in 2018 when she met "him" on Instagram, a site which was and still is festered with cases of grooming and abduction. 70% of grooming cases involved a social media platform in the late 2010s, with 14% coming from Snapchat, another 23% from Facebook, and 32% from Instagram. These grooming cases generally result in the victim sending a sexually explicit image of themselves. While it may seem impossible that this is a common result of grooming—as someone has to make the active choice to send something online—the truth is there are people in this world that are more vulnerable to manipulation, especially children and those grappling with external and/or internal issues. This can be seen in a study from 2014 that interviewed a pool of eight people who were groomed online as a child and found that 75% of them had parental issues, 38% were victims of bullying, and another 75% suffered from low self-esteem. This is also a fact many predators are aware of, as the primary targets of grooming are aged 12 to 15.

The data also correlates with the experiences of Charlotte, a once lonely teenage girl of 15 who had a difficult time making any friends at school and was often bullied. Because of this she had a lack of confidence, and considered it far easier to make friends with people online where she doesn't have to talk to others physically. She had posted her number on Facebook, and eventually received a message request from a girl she didn't know and began chatting with her. But after a few days of what she considered a friendship, the girl started constantly asking for a naked picture. Charlotte could have said no, but that lack of confidence weakened her boundaries and her sense of reason, and so without thinking, she sent a picture. Then the girl kept asking for more, and when Charlotte finally gave a definitive refusal the girl attempted to blackmail her with the picture by threatening to post it on Facebook where her friends and family could see. Charlotte didn't be-

lieve the girl would follow through, but after a couple days she found the picture in a public group chat with her name on it. Eventually her mother found out and reported the incident to the police. After Facebook was contacted, they discovered that the girl was a man who has been extorting not just Charlotte, but many others as well.

In the case of online abduction, the strategies of predators aren't all that different from the ones used in grooming. Ashleigh Hall was a 17 year old girl who had become friends with someone on Facebook who she thought was a handsome teenage boy around her age by his shirtless profile picture. He called himself Peter Cartwright, and from his messages with Hall it was clear that their relationship was becoming something more intimate. Peter called her "sexy as hell" and they called each other "babe" in their casual conversations. Ashleigh was someone with notably low self-esteem, so she never questioned the blatant sexual advances, or the fact that when they coordinated to meet on October 25th, 2009, it was Peter's father picking her up. She even told her friends that she was "giddy" to meet him. However, she was actually driven out to a random field and bound in duct tape, raped, and left murdered by the real "Peter": Pete Chapman, a 33 year old registered sex offender who had previously been involved in the rape of two teen sex workers and multiple other investigations of rape. Afterwards Chapman admitted to the murder and was later sentenced to life in prison. Overall, Ashleigh's death was an early example that brought a lot of attention to the possibility of online abduction. It is important to note however that only 1% of abductions are non-family related or online, but that doesn't mean that these horror stories should be disregarded or are any less true.

As Cleo made her way down the sidewalk, hands burrowed in her pockets to hide from the cold, she was still preoccupied with that rush of excitement. She was also a little nervous, unsure of whether she would like him, but primarily worried if he would like her. Her phone made a short buzz in her hand, and she hesitated for a moment thinking it could be one of her parents getting suspicious, but checked it anyway remembering that it could be him. Looking at the notification from Instagram she felt a slight sense of relief, but then she saw the message itself. "Hey, my dad is going to be picking you up if that's okay?" written in ambiguous white letters on the screen of her phone, changing her face to a look of confusion. That wasn't the original plan. She feels her nervousness beginning to contort into caution, her parent's advice trying to shout past the euphoria from the back of her mind. Despite her concern, she quickly responds, "Sounds good!" then puts her phone back into her pocket.

Eventually she crosses into the familiar parking lot of Target, regaining a small portion of confidence as she recognizes the place she knows well. She scans the lot for a moment and then hears a man shout, "Hey!" to her right. She turns to see him waving at her as he

"Hey, my dad is going to be picking you up if that's okay?"

exits his car, gesturing for her to come over. With some reluctance, she inches close enough for her to touch the back of the car.

"You're Cleo, right?"

She gives a small nod.

"Oh, great!" He quickly looks her up and down, "You can climb in the back. I know my son is excited to see you."

She maintains a withdrawn expression. She doesn't know how to describe it, but she knows something is wrong.

"No." She takes a slight step back, shrinking further into her small child form.

For just a second he looks angry, but then his face attempts a reassuring smile, "Please, you're all my son's talked about for the past month. It would mean a lot to him if you came," he says as he takes a couple steps forward and gets on a knee to be at her level.

She stares into his eyes, recognizing a strange glint of desperation and some other desire she can't discern. All she knows is that it contains a deceitful, frightening hunger.

She continues to back away, "I need to go home now."

As soon as those words leave her lips his hand shoots out and grabs her by the arm, wrenching her into his grasp. She tries to scream but his hand moves to cup her mouth. She bites his hand and kicks and flails her body, but no matter how hard she struggles he doesn't relent. She creates as large of a ruckus as she can, but no one hears. Or no one cares.

He forces her into the backseat, holding her still until he's driven out of the parking lot and onto the street. They drive for a little while, the girl completely oblivious to the passage of time. Each second feels like it stretches on for hours, her young mind scrambling to

rationalize the situation. Eventually they pull into a driveway, an unfamiliar and foreboding house standing nearby.

"Is your son in there?" She asks innocently, only to be greeted by a sneering laughter.

"There is no son kid, and don't even think about trying anything. No one will hear you."

To this day Cleo tries not to remember what happened for the four days she was in that house. Her parents had hired a private investigator after they discovered she was missing, and the investigator managed to track her down, break into the man's house, and return her to safety. Afterwards the police were called and the man was arrested. Cleo had to testify in court and all she knows now is that the man was given prison time. Since her experience she has received therapy, but to this day she still gets scared easily, often getting nightmares, and has nights where it's hard to fall asleep. She also has become more reserved and dislikes going out with other people. Cleo's habits match the long term mental impacts abduction can have on someone, with many cases resulting in depression and post-traumatic stress disorder, or PTSD. The abduction can also have

"She stares into his eyes, recognizing a strange glint of desperation and some other desire she can't discern."

an impact on the family of the victim, as the stress of believing they could have lost a loved one often leaves emotional damage that can take years to heal. And at the end of the day, there are some wounds that will never mend.

Both online grooming and abduction remain an issue to this day, with reports of online enticement from 2021 to 2023 increasing by 300% according to the National Center for Missing & Exploited Children (NCMEC). Because of this, many have developed some rules for individuals to stay safe online or defined some of the warning signs that you may be in danger of grooming and/or abduction. There are many instances of predators creating a fake identity or even faking their age to try and become more familiar with the target, so it's important to keep an eye out for any inconsistencies in their character and to not take anything suspicious lightly. Bear in mind that they will likely not be immediately hostile unless they have something to use against you, such as an explicit image of you that they could send to your friends or family. They are prone to start off as being kind and caring, attempting to create something resembling a friendship, or in some cases something romantic. It's important to ensure that you know that you can trust the person you are talking to before you reveal anything vulnerable about yourself or share

"There is no son kid, and don't even think about trying anything. No one will hear you."

anything explicit. Unless you are a child with restricted access to the internet—and even still in that situation—no one can control how you immediately react to being contacted by someone online, so it's crucial that you at least make educated decisions in these situations.

If you are going to meet up with someone that you met online or when you are communicating with someone online in general, you could follow Ashleigh's Rules. After Ashleigh Hall died, her friends in college wanted "to make a difference," so they developed rules to both promote and aid internet safety including never go on your own to meet up with somebody you don't know, inform someone of where, who, and when you are meeting, never fully trust anyone you meet online, and don't tell strangers online anything personal about yourself. And at the end of the day though, it is most vital to listen to Cleo's advice: "If it feels weird and wrong, it probably is."



Gaming Trust

Author's Note: The following is a fictional story about a character of mine's experience with trusting people, and a deep dive into what it means to trust people in different situations. I wrote this story from a combination of my own experiences and articles regarding game theory and the prisoner's dilemma.

Written by Ian Oberheide

"ARC orbiter on route. Fifteen minutes remain… move to extraction raiders." Shani's voice crackled over the radio. I double-checked my backpack, which was full of resources I had scavenged on our trip to the surface. I had definitely put that Dam Surveillance Room Key to good use. I called out to my partner, who was looting one last locker. "Axol, you get anything good?"

"Ho-oly, a bobcat blueprint! We need to extract," he responds. He was right; an old-world blueprint is a valuable resource, and we needed to escape below before any prying hands or looming ARCs could try to take it from us. We started running towards the Swampside Elevator, which would take us back to Speranza, where we would be safe.

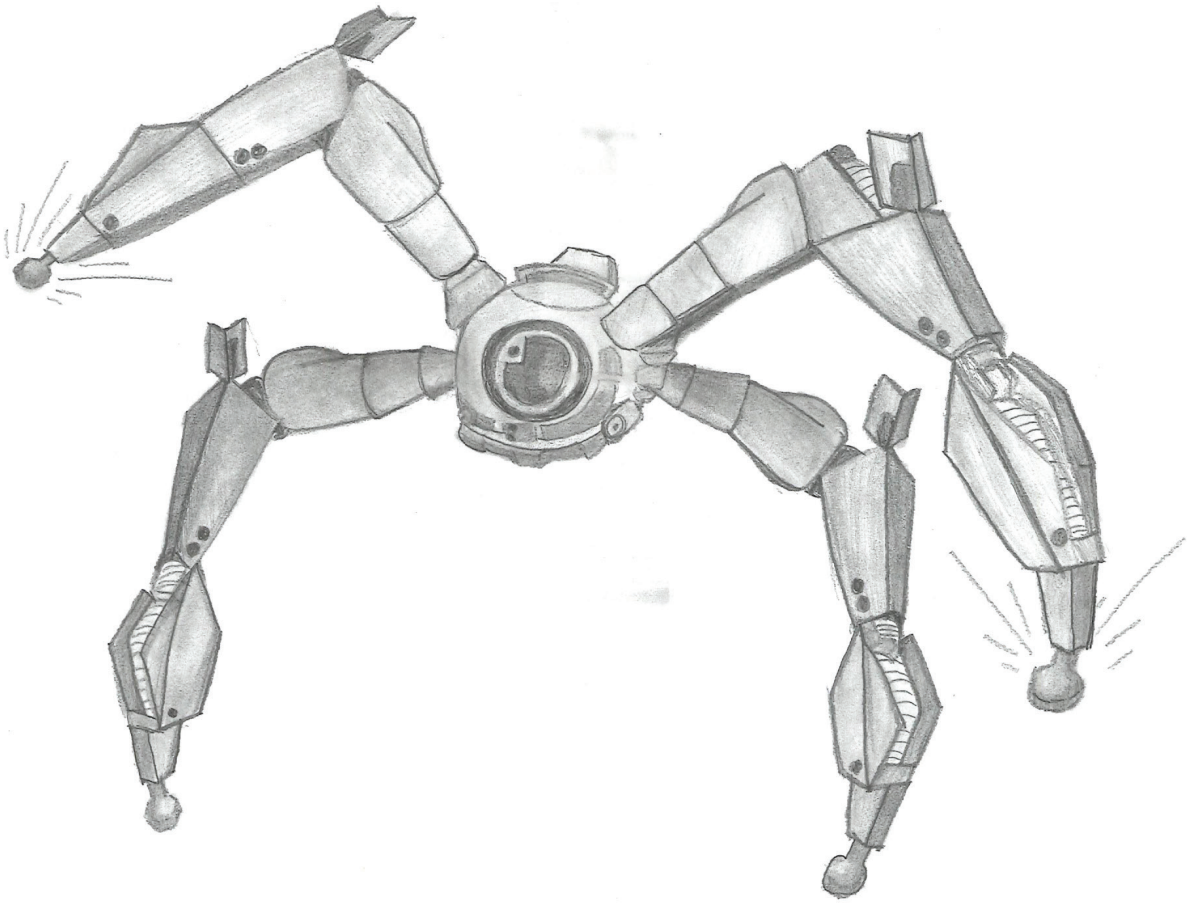
ARC Raiders is a game made by Embark Studios, released in October 2025. The game takes place in post-apocalyptic Italy in the year 2180. Generations after social collapse, hostile alien robots known as ARC have invaded Earth to strip it for natural resources and forced humanity to hide underground. However, some semblance of society has remained in underground settlements, such as the safe haven and central hub known as Speranza. While a somewhat comfortable life can be lived in Speranza, resources are scarce. People known as raiders journey to the surface in hopes of finding scrap materials and old-world relics to make a living, as well as hunting ARC for their valuable alien components.

As we reached the elevator, I spotted a leaper trudging around it. Leapers are hulking, four-legged, spiderlike machines that are heavily armored and prone to jumping on and crushing raiders. I knew that we would, unfortunately, have to fight it if we had any hope of getting home, but we had come prepared. With heavy ammo and powerful hand cannons, it was possible to take one down. We ran up the far side and hit the button to call the elevator. Orange lights started flashing, and Shani's voice rang out over the speakers, "This is security... got your call... Everything looks good, so I'm sending the elevator." We heard the low grumble of machinery as the leaper was alerted to our location. Axol took the machine's attention by firing shots off at it while I ran around to its backside, firing my hand cannon right into its core. Just as it started to smoke and spark, we heard an unfamiliar shot ring out, finishing it off. Another raider had appeared over a ridge.

"A couple of seconds passed in silence before a shot rang out. Axol cried out in pain, shouting, 'I'm down!'"

The prisoner's dilemma is a common example of game theory in which two people are caught committing a crime, such as robbing a bank, but the police don't have enough evidence to convict them of anything more than stealing the getaway vehicle. They bring each criminal into separate interrogation rooms and tell them that if they confess and their partner doesn't, they'll get off scot-free, while their partner will get, say, 8 years of prison. If both criminals confess, then they both get 6 years, and if neither of them confesses, they will both get only 2 years each. The common "solution" to this dilemma is that both criminals overcome their selfishness, neither confesses, and both walk away with less prison time overall. "The Prisoner's Dilemma captured the essence of the tension between doing what is good for the individual and what is good for everyone," says Robert Axelrod, a political scientist, mathematician, and expert on this problem. This is very similar to raiders meeting each other on the surface in ARC Raiders. If both raiders team up, or even just ignore each other, they can each take home their own bags of loot and go about their days. But if one raider feigns friendliness, betrays the other, and takes them out successfully, they get both stashes of loot, and the other person gets nothing. If they both fight each other head-on, then they are both likely to die and lose everything, or lose out to the aggressive ARC, who don't choose sides and are hostile to everyone.

Just then, the flashing lights turned green, and the



elevator doors started to open. “Elevator on-sight. See you soon, raider.” Shani said over the loudspeakers. Not wanting to stick around any longer, we loaded into the elevator and called out to the raider, “We’re friendly, you want to extract with us?” thinking the best of the stranger. A couple of seconds passed in silence before a shot rang out. Axol cried out in pain, shouting, “I’m down!” as I unholstered my gun. Not friendly. We exchanged fire, but with me and Axol being too trusting, the stranger had gotten the jump on us. Our wounds too great, we collapsed to the ground, immediately crawling to the terminal and desperately clattering away at the keyboard, trying to speed up the extraction. I looked over my shoulder and called out, “You good, Axol?” but only saw my friend unmoving on the elevator’s floor. He would be okay if we could just make it to Speranza. As I pulled the lever to finalize the extract, I saw the stranger running at the elevator to finish us off. Thankfully, the doors closed before they could get in, and the lift shuddered to life as we moved down towards safety.

“Being trusting can be frustrating.”

What’s interesting and unique about these dilemmas is that you and your “opponent” do not need to defeat each other to win. Victory can be achieved through mutual cooperation as well as through fighting. The issue with both the prisoners’ dilemma and ARC Raiders, however, is that most humans are selfish and unlikely to trust each other in scenarios where they know that they can betray each other and benefit from it. Think about it; if prisoner 1 chooses to cooperate and gets ratted out on, they get 8 years of prison, but if their partner was already going to confess and prisoner 1 confesses in defense, they only get 6 years of prison. Additionally, if prisoner 2 is too trusting and chooses not to confess, then prisoner 1 gets off with only a slap on the wrist! So mathematically, the best-looking outcome for prisoner 1 is to confess either way. The only issue is that if prisoner 1 is able to come up with this sort of logic, then, naturally, prisoner 2 also thinks this way. If that’s the case, then prisoner 1 has to confess in self-defense to at least get the lesser sentence, right? This is the sort of loop that goes through people’s heads when in scenarios like this, which makes trusting people unfavorable, even if you mean well and would like to cooperate with each other. Looking for a solution to this dilemma, Robert Axelrod set up a tournament with mathemati-

cians and game theorists alike, where they were given the option to cooperate or betray their opponents and gain points accordingly. The "solution" (being the strategy that accumulated the most points by the end) was named "tit for tat". The "tit for tat" strategy was structured by cooperating on your first game, and then choosing whichever option your last opponent used in the previous game. This had the effect of evening out the score if you were betrayed, while still being willing

"But being trusting has also led to some wonderful moments of meeting and playing with people that I wouldn't have if this were a strictly player-versus-player game."

to cooperate when given the chance. In ARC Raiders, you face these situations every round, and using the "tit for tat" strategy has worked well for me. But ultimately, in this game, facing off with other raiders is inevitable, and deciding whether to fight or cooperate is left to the heat of the moment.

I base my assumptions on a raider's character on a couple of different factors. The map, for one. Generally, raiders who play on maps like Dam Battlegrounds are more friendly. It is the first area you unlock in the game, so raiders there are either less experienced or are veterans who are comfortable with their surroundings. It is also a very open map, so you have much more time to judge situations before engaging with raiders. Whereas on a map like Stella Montis, conflict is encouraged by design. The high resource values, close-ranged ARC, and claustrophobic hallways emphasize split-second decisions and short encounters. Another factor that influences whether or not I trust raiders is my own skill level. I am confident in my ability to defend myself if I have to, so I can be generally trusting while ready to retaliate if necessary. But I'm not so confident that I can hunt other raiders down regularly. The third main factor is how late in the round it is. While individual matches are a maximum of thirty minutes long, you can leave at any time. This means that raiders who stay longer generally have more resources and are less trusting, or are hunting for said raiders.

There are also other factors, like a raider's body language, my own arsenal, or the cosmetics they have equipped, but those are less consistent. But the most influential factor is my own character. I like to assume the best in people, and that can be VERY punishing sometimes. I have had matches where I trusted someone's "I'm friendly!" claim while looting a room, only for them to shoot me as soon as I turned my back. I have also had matches where I had extremely valuable resources and was eliminated at the last second by somebody who I had let come onto the extraction elevator with me. Being trusting can be frustrating. But being trusting has also led to some wonderful moments of meeting and playing with people that I wouldn't have if this were a strictly player-versus-player game. I have had games where somebody gave me a specific resource I was looking for, or we teamed up to defeat a large ARC, and both left all the richer from it. While a gamble, I think that being trusting leads to more fun games most of the time, and that's the reason I play this game, and the main reason I trust people.

An Artificial Future

Author's Note: My survival story is about the implications for our future due to our increasing reliance on AI. It explores the effects of AI already being seen in humans, and the possible effects that may be seen in the future.

Written by Alva Healy

What does it mean to think like a human? With the rise of AI in our society, this already complicated question has grown more complex as intelligence other than human beings becomes more and more prevalent. Artificial Intelligence (AI) is a computing system designed to simulate human intellectual processing. Whereas other computer models follow rigid codes that enact very specific actions, AI is meant to analyze inputs as they come, allowing the system to build pattern recognition and rationalize challenges and problems. AI has been a concept since around the 1950s, with a few creditors to its name, including men like Alan Turing and scientists at the Dartmouth Conference in 1956.

If we look at it most recently, generative AI emerged during the 2020s and has become a topic of much ethical and logistical discussion across the world. Generative AI is a type of AI which creates "original" content in the form of images, texts, videos, audios, etc. Generative AI must be trained in order to create the desired products, and this looks like feeding the AI model massive amounts of data and information to train its ability to create content. Though it has been around since the 1950s, what we would consider the first generative AI of the modern era is DALL-E, released in January of 2021, which generates an image from a text prompt. However, generative AI became more popularized with OpenAI's ChatGPT bot, which provided "human-like" responses to user questioning.

Due to its quickly evolving nature, AI has embedded itself into both professional and daily life at a breakneck speed. In 2024, 78% of corporations reported using AI in some way in the workplace, which had drastically increased from the year prior, when only 55% reported using AI. We can also see, in a non-professional lens, how much AI is affecting students. In 2025, 90% of students say that they have used AI academically before, with nearly three-quarters saying their usage increased from 2024.

The classroom was buzzy with the chatter of students, though there were only a few when I visited to get an interview for this paper. The room belongs to Leo Bickelhaupt, who has been teaching at OWL for over 30 years and has been my AP Lang teacher all year. All around us, as we settled into a brief conversation before the recording started, I could hear other students making comments about the newspaper and other assignments they had to do before the end of the quarter. Despite being common, it was a comforting sight. Students engaging with one another, discussing assignments, and planning their course of action in learning. I can only assume, looking over at my interviewee, that he feels the same.

Leo's job as an English teacher has changed drastically over the past five years. Kids always cheated, but with the rise of AI, it has become more prevalent, as well as harder to distinguish. When talking to Leo, he expressed frustration, but seemed to see the situation as inevitable as well. He stated that AI "provides a shortcut, a very tempting shortcut, that will lure

[students] into not learning those [writing] skills, because writing is hard and learning to write takes a lot of work."

This translated into the human thinking process as well. Leo discussed how it's not just the quality of learning that changes, but also the entire critical thinking process of a student as well. We talked about anti-intellectualism in our society, and when I asked him how he



thought AI played into that, he said, "It provides a tool for people to shortcut intellectual processes and critical thinking processes, real thinking processes…That movement is literally handing our intelligence over to machines.

"That movement is literally handing our intelligence over to machines."

Leo, being a teacher and a writer at that, offered a more biased perspective on my topic. I understood going in that I would want to couple his interview with a perspective that was less adverse to AI. Along with Leo's interview, I also talked to multiple students, all of whom I've decided to leave unnamed, to get a more pro-AI side of the story. Most were not completely pro-AI, with caveats like asking ChatGPT to give an example of an essay based on a prompt, or to answer a question they were stuck on. One student told me, "I think there's a way to use [AI] right. For me, it can explain a problem when I can't figure it out on my own." Another student spoke about using it to review their work and edit where necessary. The common argument among those I interviewed was that AI could be used correctly. However, most also admitted to using it to complete an assignment or two when the workload in school became heavy.

The future of AI development plays into the future of human development. As said above, AI is already changing how humans interact with everyday tasks, like work and school, and in the future, this is likely to increase. In the near future, at least 60% of current jobs will be significantly adapted due to AI. Because of the integration of AI more and more into our daily lives, it's likely that human thought processing will change along with our AI usage.

AI is already negatively affecting humans in multiple ways. First, the increase in usage of AI-generated content on social media platforms is able to, and has already been used to spread misinformation. According to a survey from the Pew Research Center, 52% of Americans have little to no confidence that they have the ability to tell the difference between a human and AI-created media. It is also shown that the leading AI tools and chatbots relay false information up to 35% of the time when asked a question about a controversial topic. In an era rife with false information already, AI is continuing this pattern in a way which will evolve to be more difficult to detect as the technology improves. This has many possible consequences for humans, including rising levels of polarization and distrust between people.

Human creativity and thinking will also be deeply impacted by AI technology. Overreliance on AI is shown to weaken a person's ability to think critically, primarily through a phenomenon called cognitive offloading. Cognitive offloading is when our brains transfer our own mental abilities onto a tool, which diminishes our independent thought processes. For example, if you used the answer key to answer every question on your homework, you'd never learn any of the content; similarly, if we continue to implement AI into every facet of life, we will no longer need to think critically because we will have a tool doing it for us. This comes with many caveats, including the debilitation of our ability to tell the difference between biased or hallucinated information.

When thinking about my concept for this survival essay, I was immediately drawn to AI. Most other ideas that came to mind were stories about events that had already happened, and took their meaning from what was learned or taken away in the end. The topic of AI is intriguing because it's something that hasn't happened yet; an impending survival situation, looking at whether human identity can survive AI. We, as humans, can't be sure what our future in correlation with AI looks like; we can only go off our current understanding of the technology and where it is going in the near future.

AI is capable of incredible efficiency. As I've already talked about, it has generative abilities far beyond those of a human. Due to this efficiency, it has already become a huge part of our lives, only a few years after its introduction to the wider public. It is rapidly becoming, and will likely continue to be, a part of school, work, and daily life. While it can be conceded that AI is useful, we also know that it will likely do more harm than good. AI is already changing the way we think and learn, and as it grows to be a bigger part of life, it will continue to deteriorate our ability to do things like think critically. Human survival ends when our most defining traits, our thinking process and creativity, are destroyed. Over the following years, we will survive by continuing to do the things we have been doing since the beginning of our species: reading, writing, learning after we are out of school, and, of course, thinking by ourselves and for ourselves.

Matrescence

Author's Note: I was inspired to write this story after I did a project about childcare expenses in the US. During my research for that project, I started realizing how many different hardships new parents face, and how little empathy they get for it. To write this story, I read about and talked with moms and caregivers who have struggled with mental health and societal expectations (which basically every parent ever has stories about), and learned more about the psychological aspects of motherhood that are often overlooked.

Written by Kate Houle

Matrescence (noun): the process of becoming a mother.

The baby wouldn't stop crying. Hiccuping sobs echoed off the walls as the clock ticked further into the early hours of the night. She had been up for hours, pacing back and forth throughout the house, desperately trying to calm the bundle in her arms. She knew that having a baby would be hard work, but she had to be an awful mother if even the simple task of getting her baby back to sleep seemed impossible.

What if the baby was sick? What if she had done something wrong and hadn't noticed because she kept having to take calls from her office? Weren't mothers supposed to have an instinctive bond with their children? Why couldn't she figure out what to do? Why could she only feel worry and guilt when she looked down at her newborn's tiny face?

Bringing a new baby home can be incredibly challenging for caregivers, especially in the US. Over 80% of new mothers report experiencing the "baby blues"— a juvenile term for the intense mood swings and stress that occur in the first couple of weeks after birth. Around 12% of them go on to experience postpartum depression, an isolating condition involving severe anxiety, guilt, and lack of energy that can affect both the mother and child.

Author and influencer Bridget Croteau wrote a book about her experience with postpartum, sharing that, "I felt alone, scared, miserable and like I couldn't handle anything. I felt like a complete failure. I felt inadequate as a wife and mother and felt enormous guilt…I had expectations of this wave of "love and euphoria" flowing through me when I held my daughter the first time. I didn't feel this at all and I felt horrible about it. While going through this, I felt like I was "crazy" – I had a beautiful daughter and everything I wanted, why was I so unhappy?"

She got to the far side of the house and turned around. If the baby wasn't okay, it would be her fault, but as long as the baby was fine, she should be fine too. Everyone said her worries, her pain, and her exhaustion were normal. Getting less than 5 hours of sleep a night was normal. As long as the baby was happy, she should be happy. But the baby wouldn't stop crying, and there had to be something wrong with her.

After giving birth, women often have to make the difficult decision between immediately going back to work or giving up their income for extended periods of time, as only 35% of employers in the US actually offer paid maternity leave. While the sleep deprivation that comes with having a newborn is fairly normalized, the effects of getting suboptimal levels of sleep (which 60% of new parents do) mean that being awake and attentive, especially when trying to work a 9-to-5 job on top of taking care of an extremely dependent small being, is a practically impossible feat.

Everyone wanted to know how the baby was doing, and the baby was good- had to be good, the best thing



that ever happened to her- but nobody seemed to care how she was doing. From the moment someone found out she had a baby, all they wanted to do was give her advice or share their own stories. She wanted to scream that the first words and first steps felt like they were a million years away right now! She was in constant pain, couldn't hold a routine down for the life of her, and was so, so tired.

"She had been up for hours, pacing back and forth throughout the house, desperately trying to calm the bundle in her arms."

Society likes to focus on the life-changing wonders of having a kid, and it's often painted as one of the most joyous and fulfilling experiences in a woman's life. But when you start looking at all of the physical, mental, and financial strain that new parents have to deal with, it's no wonder that the US birth rate has dropped 20% in the past 20 years. As Linda Blum, a sociology professor at Northeastern, put it, "We are an incredibly stingy society when it comes to supporting women and children and families… Some states offer paid family leave, but we haven't learned from other wealthy democratic nations, because they offer very generous paid family leave, and their economies are not broken by it. It makes the decision of when to have a child so weighty. It's a really tough choice for women."

The crying got impossibly louder.

Maybe she just wasn't cut out to be a mom. It was supposed to take a village to raise a child, but her village seemed to be disappearing by the second. It felt like every night she ended up right back here, praying that somebody would take pity on her and give her some actual guidance. Or at least tell her that she wasn't crazy for worrying! All of the other moms seemed so happy and carefree. Was she the only one feeling like this? What was wrong with her? No wonder no one seemed to care about how she was doing. She had to be overreacting.

According to a recent study, over 85% of mothers don't receive the support they need during the postpartum period. It's common in the US for mothers and babies to be discharged from the maternity ward only two days after giving birth, and not see a healthcare provider again for the next six weeks. These follow-ups are often focused on physical health, yet across the board, mothers say what they need most during the postpartum period is emotional support. The impossible standard for moms to be constantly happy and grateful while dedicating their whole lives to their children can make it very difficult for women to advocate for the reassurance and care they truly need. In maternity circles, the idea of "mothering the mother" —trying to ease caregivers' guilt around getting overwhelmed by providing emotional and day-to-day support— is gaining traction as a necessary ideology as more and more moms report feeling isolated and out of their depth when adjusting to their life with a new baby.

Julia Jones, founder of the postpartum care site Newborn Mothers, sums up why this is needed well: "Being a new mom makes you feel wholly unprepared to do anything, which is exactly the opposite of the way we'd want a new mom to feel. Ideally, a new mom would go through this process of this transformation and come out the other side feeling confident and prepared and strong and capable. But instead, the way that our system works just completely undermines all of her intuition, all of her trust in her body and her baby and her ability to do things. And so she comes out the other end feeling completely useless and hopeless, like it's never going to work, and she's not enough, and all of that kind of thing."

In many non-Western cultures, the period of matrescence is centered around the fact that a mother has given birth. In America, we've shifted the language and the focus to the fact that a baby has been born, taking attention and support away from the family unit. From mommy blogs to medical journals, the attitude towards counseling new moms likes to fixate on assuring them that taking care of a baby is hard work and the pressure they are feeling is to be expected. This overused (and understated) language however, doesn't address the root problem: our society is simply not equipped to care about caregivers. It's all well and good to advise new moms to be vulnerable and lean on others for support, but first, we need to collectively understand that matrescence is a genuine life-changing experience that goes far beyond the baby blues.

It Takes A Village

Author's Note: The following is a true story about my mom's experience being pregnant with my brother in high school. The information in this story was primarily gathered from an interview I had with her along with various stories she has shared with me.

Written by Claire Ales

Erin was in the bathroom for what felt like hours, but it was really only 10 minutes. 600 seconds that would change the entire trajectory of her life. She waited impatiently as the test processed the results. She began to think, what if it's positive? What am I going to do? Finally she thought, How am I going to tell my parents?

She was brought out of her daze by the sound of her 10 minute timer. Erin slowly turned over the test, awaiting her fate. There was the result. Positive. She was going to have a baby at 16 years old and she didn't know what to do about it. A wave of emotions rushed over her. She was afraid. She was shocked. She was alone.

Erin turned off the bathroom lights and retreated to her room to come up with a plan, making a step by step list in her mind.

Step 1: Figure out what I am going to do.

Step 2: Figure out a way to tell my parents.

Step 3: Actually tell my parents.

Step 4: Tell my boyfriend.

Erin began the descent of the stairs to the dining room where she would find both of her parents sitting. She just needed to rip off the bandaid and tell them. She sat with her parents at the dining room table preparing herself for the worst possible outcome, and then, she told them.

"Mom, Dad, I have something to tell you. I'm pregnant."

The room went quiet. No one spoke for several moments. Erin was waiting for the yelling to start, but it never happened. Her parents were of course surprised, and probably a little bit angry, but their main reaction was one of concern. Concern for her future, and the future of the child she would be having. Erin's parents presented her with all of her options, and most importantly, provided her with the most valuable thing they could have given her in this difficult time: they gave her their support.

When they found out, Erin's parents were concerned for her well being and how this would impact her future. They wanted to protect her. Erin's parents didn't want her to make these big life decisions that could negatively impact the rest of her life. They struggled with the balance between giving her autonomy in her personal decisions while also grappling with the feeling of needing to protect their daughter.

One of the main things pregnant teens are lacking in is support, whether it comes from family members or public resources. For example, teen moms who don't have any support from their families are less likely to receive adequate prenatal care, physical or mental. Additionally, the depression rate for teen moms is between 16% and 44%, as opposed to adult moms where the rate is 10%-15%. Dr. Yael Smiley, a pediatrician at Children's National Hospital said, "This should come as no surprise. Young parents say they do better – and their children do better – when they have the material and social support they need."

In high school and all throughout her school career, Erin was bright, dedicated, and interested in everything she was learning. She was a straight A student and played #1 singles for Harding's Varsity Tennis team. Erin always followed the rules, never got in trouble, or caused problems for anyone. She had her sights set on Cornell University in New York for college and was well on her way to graduating at the top of her class.



However, in addition to all of these things, she also struggled with self-confidence.

Being pregnant at a young age did not do any favors for her self-confidence. "Now I was walking down the halls and people were staring. I'm sure they were talking," said Erin. "They weren't talking to my face but I'm sure they were talking about me and I didn't like that. I don't like that kind of attention drawn to myself." Erin also had to deal with people perceiving her and her parents differently when they were out in public. Her parents even lost some friends over the pregnancy.

In addition to struggling with self consciousness, Erin struggled to figure out where she fit in the world, and how the rest of her life was going to change. Whether this was in terms of school or her career, "I struggled with figuring out, not only who I was and how it was going to be changing my life, because, yes, my life was on a path to change," said Erin.

School should have been a struggle for Erin. In a way, all of the statistics were rooting against her. She took the doubts coming from people around her and channeled them into motivation and determination to prove everyone wrong. "I was more determined than ever to not become one of those statistics," said Erin, "I was driven to graduate, driven to maintain all of my schoolwork."

She went to school in person for as long as she possibly could and then once she was at home, she still managed to complete all of her coursework and maintain her GPA. All of her teachers would send her homework to her homeroom teacher and then her boyfriend would collect everything at the end of the day and drop it off at her house on his way home.

Most of her work she could figure out on her own, but geometry really did not come easily to Erin. Her teacher, Mr. Davis, knowing this since the beginning of the year, arranged to call her after school every single day to help her with that day's lesson.

After her son, Daniel, was born on April 8th, 1992, Erin finished the remainder of her sophomore year at home and returned to in-person school at the start of her junior year. With her returning to school came the problem of childcare. Fortunately, there was a daycare attached to Harding High School run through the Early Childhood Family Education (ECFE) program. Erin dropped Daniel off there everyday before going to school and often took advantage of the location and visited him during free time she had while she was at school.

While being a teen parent, Erin often struggled with people, particularly professionals, taking her seriously. She had to learn to advocate even harder for her son because of this and grew very protective over him. "I now had someone who I was responsible and had to advocate for, and I was very protective over Daniel. All I wanted was to be taken seriously, and I could tell that people weren't," said Erin.

Throughout the rest of high school, Erin continued to work hard, balancing all of her normal teenage stressors with the responsibility of caring for a child who wasn't even one until around three quarters of the way through her junior year. She maintained her over 4.0 GPA and graduated within the top 10 of her high school class. In the fall of 1994 she started at the University of Minnesota, majoring in Political Science and minoring in Native American Studies, with a full ride scholarship for all four years.

"All of the statistics were rooting against her."

According to the Minnesota Department of Health, only 50% of teen moms receive a high school diploma by the age of 22. For all other teens, the proportion is about 90%. Having a child during high school adds an extra layer of responsibility and stress in addition to the regular stressors teens already face in their daily lives, forcing them to turn their attention away from their schooling and towards the care of another individual. So, we come to ask ourselves, how do those in the 50% do it? How can we make that number rise? What is the rest of their life like after giving birth at such a young age?

The answer to every single question above is simply, support. Without the support of everyone in her family, close friends, and teachers, Erin would not have been able to be as successful as she was. In addition to support from her own parents, Erin had the support of her boyfriend's parents, during the pregnancy, and after Daniel was born. They were able to help financially as well as with childcare. Support is the most important thing that can be given to someone going through a rough period or experiencing a hardship. Initially after finding out that she was pregnant, Erin felt alone. She didn't know what to do. But after talking with her parents and everyone around her that served as her support system, she was able to navigate through it. Erin's experience with teen pregnancy shows how with the right support system you can get through anything.

Family



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Gender Unicorn

Author's Note: This story is about my and my mother's experiences with growing up and being transgender. To write it, I interviewed her and did research about the mental health of trans youth.

Written by Antimony Compton

My mother faced a lot of difficulty growing up. "I felt scared and isolated," she told me. She wanted to be a girl, but did not see any such thing as a real possibility. She had heard about the concept of transgender people, but only as a shocking idea, or being condemned from the pulpit. She spent as much of her time as possible practicing music or hanging out with friends in order to get out of the house.

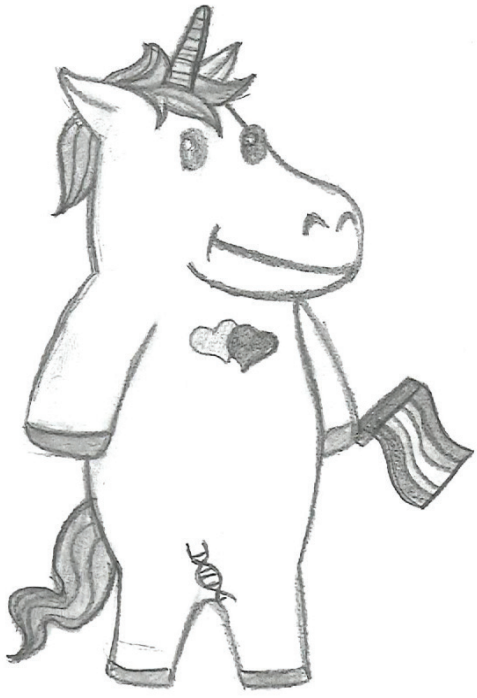
Many young trans people face similar struggles with mental health because of lacking a supportive environment and access to gender-affirming medical care. In a 2025 study by the Trevor Project, 40% of transgender and non-binary youth had seriously considered suicide in the last year. Gender dysphoria is often a significant stressor. General societal attitudes around trans people are sometimes very unpleasant, and can have an ill effect on people's self-image and overall mental health. Beyond that, many young trans people face a choice between much more direct negativity from their families, or the isolation, distrust, and fear that comes from hiding their identities.

"She wanted to be a girl, but did not see any such thing as a real possibility."

Mental health outcomes are much better for trans people in a supportive environment, though. Being able to access gender-affirming medical care with family support is very good for helping with gender dysphoria and overall mental health. One study found that being on hormone replacement therapy or puberty blockers was associated with 60% lower odds of depression and 73% lower odds of self harm or suicidal thoughts. Being able to publicly live according to one's gender identity, without needing to hide from family, is also a good thing. An overall supportive family is also very good for dealing with negative attitudes from other sources.

My experience with my family, by contrast, has always been very supportive of me when it comes to being transgender, to the point where my decision to start hormone replacement therapy was enough of a non-issue with my parents that I don't even remember how I told them I was interested in it. We scheduled an appointment with a doctor who specialized in gender-affirmative care, and, after the usual length of time one has to wait for an appointment after scheduling it, the process of showing up to the clinic and getting checked in was no different than any other doctor's appointment. We got there, and sat in the waiting room for a bit until they called my name. A nurse took me to the office and did the usual measurements of my height and blood pressure and such, and then left us to wait for the doctor. I was a little worried then– would I have to go through some rigorous process to prove to the doctor I was really trans enough to need hormones? Would I need to get a letter from a therapist? The flowchart on the door about whether you should get screened for colon cancer offered me no reassurance.

I had to fill out a sheet with a 'gender unicorn' on it. I think I've done that exact sheet before in GSA, so it was not, in fact, a terrifying experience of any sort. The doctor then proceeded to tell me about the various options available, and gave me an informational packet. I survived that appointment very well, after all, and after a follow-up appointment, I was able to start hormones, which has been a very good experience.





Lily

Author's Note: My survival story is about my experience with the unexpected and complicated death of my sister, Lily, that happened before my sophomore year. It involves the details of her death, which includes mentions of drugs, overdose, and mental health issues.

Written by Annabelle Wilson

By the look on my dad's face as he came up the stairs, I could tell my sister had died.

The morning of August 27th, 2024, was uneventful. I woke up, made breakfast, and sat on my phone. Until out of nowhere, one of my sister's friends, Jesse, followed and DM'd me.

"Hey girl are you with Lily?"

"Right now? No," I replied

"Ok lol I just got a weird message lol and I wanted to let her know she was hacked or something."

"Want me to send her a text or something?"

"No don't do that, I think her phone was stolen. I'm just trying to figure out who she was with is all."

I was confused. I had seen my sister the day before, and everything had seemed fine then. But Lily was forgetful at times, leaving her phone places. Maybe she had left it, and someone stole it? Maybe she got robbed? Lily had started quitting cigarettes and would often ask random people outside of her apartment to have a cig for a dollar. I was worried she might have been hurt or attacked while doing this. But I didn't think much of it. I mean, I bet it was fine. Nothing bad could have happened, right?

My sister and I are technically half-siblings. She's 7 years older than I, with a different dad who is out of the picture. Even though we didn't share fathers, she was my sister. Growing up together was hard. After my dad and our mom divorced, it was a struggle to have a constant place to live, food, and a stable environment. We would often move at short notice, stuffing all our things into garbage bags, because my mom couldn't afford rent. Lily and my mom got into many fights around school, money, behaviors, etc. I don't remember most of what their arguments were about, but I remember the violence of it. My sister was the most extreme version of a teenager you could imagine. Almost every morning was a fight for my mom to get Lily to go to school. Lily struggled with extreme anxiety, often not being able to handle things like school. I don't know the full extent to which she struggled or what caused it. I never had the chance to ask. It may just be genetic, anxiety does run in my family. It may also be caused by the trauma she faced. My mom, her dad, and her classmates inflicted a lot of trauma on her I don't know the full details of. Lily struggled the most with car rides and plane rides, often getting massive panic attacks. She would abuse substances to calm herself down and deal with her anxiety. As a kid I saw her her battle suicide, self-harm, and drugs.

Trauma makes people more vulnerable to developing an issue with substances. This is to cope with the experiences they faced. Substances allow for a release from the pain they experience. Drugs can make people feel extreme highs and lows, making them want them even more, chasing the highs. People easily become addicted and feel that they are needed for survival. Trauma causes people to withdraw, lash out, and have a change in emotions. I saw my sister turn to substances in this way.

Even with all of this, I appreciate all she did for me at the time. She would defend and stand up for me against our mom, steal food from her work so I could have food, and keep me happy. I have many fond memories of hanging out with her and her friends. She struggled greatly. I saw her abuse pills, alcohol, etc., to keep herself going. As the years went by, she got better. I think moving out helped, finding a place on her own. She stopped abusing substances as much. She would sometimes relapse, but never to the point of what she used to do. She had a wonderful boyfriend, a nice job, loved volunteering at a local pet shop, and was on the journey to heal. I had finally seen my sister truly happy. She had plans for the future, something she never had in the past. She wanted to move to Seattle after her lease was up, be married by 25, have a family, and start a cat cafe.

My house has thin walls. You can hear everything going on from the top floor down. I could hear from downstairs that my dad was on a phone call. I overheard my name being mentioned as he walked up the stairs. His face had an expression that I can't describe, but something about it, I just knew. I knew by the way he was looking at me that something bad had happened. Something bad had happened to my sister.

He approached me, still on the phone, and said

"Annabelle's here."

My mom was on the other line. At the time, she was

over ten hours away in Kansas. My mom started to speak on the phone

"Annabelle, I'm so sorry, Lily overdosed this morning. I'm so sorry."

The only thing I did in that moment was cry. I just burst into tears. Lily was someone who was not supposed to die, she was not meant to die, not ever. In the past, I was always scared of my sister dying. It was a thought in the back of my head during our childhood as she was struggling. I could not believe it actually happened, just as she had gotten better.

I didn't want to hear anything else my mom had to say. I felt like I couldn't breathe, and the only thing in that moment that I could do was cry. At some point, I got away from my parents. I called my closest friend and mouthed what was probably nonsense since I was crying so much. All I said over and over was "She's dead, she's dead." She was able to calm me down to some extent. She asked me for details, but I didn't know them. All I knew was that she overdosed on fentanyl early in the morning, around 1-3 am, only a mile away from my house, up in Oakdale. I didn't know who she had been with, what had happened, or how she had overdosed. My friend and I talked, she asked if I wanted to come over, and I declined. She said if I need anything, to reach out, and I said I would.

Fentanyl is a drug 50% stronger than heroin and 100% stronger than morphine. It is undetectable without a test. You can't smell or taste fentanyl. Many street drugs contain small traces of fentanyl or are laced to be cheaper. Even a small dose, 2mg, can kill. Originally, fentanyl was produced as a treatment for extreme pain, such as with chronic illness. But fentanyl is also used illegally. It's easy to produce and is a powerful drug. Lacing the drug with fake prescription pills has become increasingly common across America. In 2022, six out of ten fentanyl-laced prescription pills contained a lethal dose of fentanyl. Over 100,000 people died from drug poisoning in 2021, with 66% being caused by synthetic opioids such as fentanyl. Fentanyl causes people to feel an easing of pain, and affects their decision-making. Side effects of fentanyl include confusion, drowsiness, nausea, visual disturbances, constipation, muscle stiffness, and the chance of overdose. Fentanyl overdoses have increased with the rise of laced pills. Many people go to buy what they thought were script pills but turn out to include a lethal dose of fentanyl, causing many unintentional overdoses.

After hanging up the phone, I came back to where my dad was, now needing to figure out what the next steps were. My dad told me that Jesse was not the only person reviewing strange texts and calls from Lily's phone. Our family was as well. Someone had Lily's phone and was using it to try to get money. Whoever had it was pretending to be my sister and texting grandparents, friends, and distant relatives. They were asking for $10,000. The police must not have taken her phone, along with the rest of her items, when she passed. Luckily, Lily had just bought a new phone, had fully set it up, but hadn't yet fully switched over. This phone had access to her cloud, photos, texts, etc. I remembered that new phone being on her nightstand the last time I had been to her apartment. I hoped that this new phone would still be in her apartment, and we would be able to figure out what was going on.

Getting into her apartment wasn't hard, someone let us into the locked elevator space. Going up to her apartment, we discovered that she had left her apartment unlocked, something she did often. Her apartment looked normal at first. But upon settling in closer, things were weird. There were beer cans everywhere. On its own, it wouldn't seem suspicious, but for Lily, it was weird. She didn't drink much anymore, and when she did, it was never beer. To her, beer was disgusting, and she would rather choose types of wine or gin. The amount of beer was also weird. The amount was astounding. Half-empty cans were stacked across her living room, with empty boxes in the recycling can. There was no way she had all those beers herself, someone had been



with her. She had also left her keys, wallet, and bag in the kitchen. She would sometimes leave her keys at home, but leaving all her items was strange. There was an order of uneaten Jimmy John's in the fridge. Two sandwiches and a cookie, doordashed late at night. Someone else had clearly been with Lily. It was strange to have left the food uneaten and gone somewhere else. The time of night was strange as well. Lily was not the type of person to go out late. Occasionally, but not often.

"Annabelle, I'm so sorry, Lily overdosed this morning. I'm so sorry."

As we made our way through her apartment, we found her new phone. It was out of sight, hidden under some random things on her night stand. Finding her new phone only made things more confusing. I started to go through it. Everything about the situation felt off, and I wanted to get to the bottom of it. I entered her password "696969", remembering it from that previous Sunday where she was shocked to find I didn't know it.

The contents of her phone were jarring. The main thing it revealed was what had happened to her old phone. Her old phone had been on her when she passed, it was included in her forensic photographs just in the background. But instead of being at the police station or the morgue, her old phone was still located where she had died. The people she was with when she died still had her phone, and they were using it. They had been calling people pretending to be Lily to convince them to give them money. I could see in real time whoever had her phone texting people. Saying they were in trouble and needed money. They texted Lily's boyfriend, Nick, saying they were sorry. "She was turning blue and there was nothing I could do. She owes me money." They were messaging everyone in her phone. The people had sent a photo of Lily to every person on her snapchat list, texting anyone who responded. They were even contacting people on her Facebook.

It made me sick.

In her wallets, Venmo, Zelle, etc, there were thousands of dollars worth of attempted transactions. All from the time of her passing. As soon as she died these people's first instinct was to steal money. There were photos, showing the police cars outsides. They had called the police, but hours after her confirmed death, around 4am. Screenshots of attempted changing of passwords. Multiple calls to a person named Lexi. 42 missed calls from her boyfriend. One last goodnight between the two at 10pm. Going through her phone broke my heart. The life my sister had lived was not supposed to end this way. I wanted to know the full story so desperately. It didn't make sense that she had left in the middle of the night. I couldn't comprehend the idea that my sister might've died in pain. My dad, using the new phone, locked the old phone. This made it so that when you tried to open the old phone it wouldn't work, only showing a message that included my dad's number. The person called right away.

The person was Luna, a friend of Lily's she had mentioned. When I brought up the name to Lily's friends, they said they barely knew her. Luna on the phone wasn't very clear. My dad asked for Lily's old phone back, Luna stepped around the question. Luna asked to go to Lily's apartment to retrieve some items, my dad denied. The conversation was confusing. Luna did not give much information, did not explain anything, and in the end we walked away with nothing. The phone was still in Luna's possession.

I continued looking through her phone, trying to find more information. On her Instagram I found who Lexi was. A drug dealer. One Lily had known for ages. Messages between them were asking for scripts. The account Lily was messaging was deleted but it wasn't hard to figure out who it was. I knew to an extent Lily might have been buying prescriptions. She had confided in me weeks ago how her anxiety prescription wasn't enough, and she told me that she had been taking larger doses. Her regular dose had not been working. But she was worried to ask for more, she didn't want to come across as a druggie. She just needed to help her anxiety. My sister must have gone to Lexi for more.

We were meant to go on a trip in a couple of days, my sister, my dad, and I. Long car rides caused my sister the greatest anxiety. She must've been running out of her prescription, and felt like she needed something. So she went to Lexi. That was my theory at least. I didn't have the full story. I never got the full story. Looking through her phone, I saw her search history. I was in anguish. Her search history was filled with things like "how do I tell if something is laced with fentanyl, how do you know if your drug dealer is scamming you, fake xanax vs real xanax, overdose hotline, fentanyl stripped, how to report a trap house, how to report a drug dealer."

Lily must've known. That was the only thing I could think of at that moment. Lily must have known something was wrong.

I could not believe it. Lexi was a degenerate. It was coming together in my head. My sister had money, she gained a big inheritance after her aunt passed. She lived in a nice apartment. Those people knew that, they had seen the money that she had given them already. There was no way Lily owed $10,000. Drugs do not cost that much money, especially simple script drugs. But I didn't know. All I could hope was that the police would notice all of this. Notice the weird things in her apartment, the money, the messaging everyone. I would just have to wait.

It took the police over two months to sign off on her autopsy. The morgue told us it was weird, that it shouldn't take this long for a normal case. I hoped this meant they were investigating and had found something. I had one interview with the police over 6 months after her passing. I told them all I found. They agreed it was weird. I hoped something would happen. We had a funeral for her. Life carried on, school, jobs, friends. I figured it was just taking them time, the police have lots to do.

"Lily must've known. That was the only thing I could think of at that moment. Lily must have known something was wrong."

I think back to the last day I saw her. We went to our grandparents' farm. Lily wanted advice on land ownership. Her boyfriend and friends were with us. We got Culver's, our favorite roadside snacks. The entire time we were at the farm, she was very clingy to me. I assumed she was a bit tipsy. On the way back, she fell asleep on my shoulder. When they dropped me off, I asked if she was free on Labor Day to hang out. Lily said yes. She said she loved me more than anything. I am forever grateful I got to say goodbye. Sometimes I wonder if she knew what was going to happen.

They closed her case a couple of months after her death without telling us. I had to continue on. I don't know what happened. I don't think anyone was charged. It's been a little over a year since she passed. I think of her every single day.

Going through the grief of her passing was one of the most horrible moments of my life. When my sister first passed, I did not think it would ever get better. The day after her passing I attended my first PSEO class. I felt sick, I could barely eat and wanted nothing more than to have everything stop. But I did it, I pushed her death to the back of my mind. I saw my friends for the first time the following Friday. We all met up at the state fair. My friends were in shock hearing the news, I told them I didn't want to think about it. I again pushed my grief back. I could not handle all the emotions that came with her death.

When school first started, I could not stand it. I would beg my parents not to let me go. My brain could not focus on anything except the fact that my sister was dead. I didn't do my work, I wasn't showing up to my classes, and I was letting my life fall apart. I could tell my friends were worried for me, but they didn't want to overstep. I was running away from it; from my grief and my life. I was so busy with the first bit of school, having to go through all of Lily's items, planning her funeral, and dealing with the fact I truly didn't know what happened to her. I neglected my life. I was in a wall of my emotions, refusing any type of help. It wasn't till I had a friend call me out that I started to realize my mistake. He said to me, "You think that if you never let it catch up, somehow everything will go back to normal. The truth is it won't…But you will learn and grow and change and learn slowly that you aren't forgetting her by living your life as a way to honor her."

It gave me a new perspective of what I was doing. I knew I could not spend my life living it as if it had ended. Even though Lily was no longer around, I still was. Even though she was not able to live the life she wanted, I could. Grief is not a linear path. There are days where it sucks, where I can't handle doing anything but cry about her. But there are always better days. As time goes on it's easier to handle. I will never lose my love and grief for her, but I have found a way to handle and enjoy her memory. I try to live my life to the fullest for her. I love to volunteer with animals, I visit our grandparents as often as I can, and I'm taking a trip to Seattle this summer.

I had a dream of her a month after she passed. I had wished everyday beforehand to have a sign. To have a sign she was okay. She came to me in my dream. She hugged me. She said she was sorry. She said she loved me. I think of her everyday. I know I always will. My sister was the most important person in my life. I wish everyday that something will come out of her death. I don't know if it ever will. I just hope it wasn't painful for Lily. I never wanted her to be in pain.

Bridging the Spectrum

Author's Note: The following is an accurate account of the daily experiences I have being in a family with a disabled child. It includes my interpretation of how my brother feels during sensory overloads and excerpts of an interview with my

Written by Rahnia Droogsma

"BEEP, BEEP, BEEP, FIRE, FIRE." I felt scared. What is that noise that is attacking my head? The whole world drops away as all I can hear, see, and think about is the noise. Where is it coming from? I plug my ears to try and block out the sound. Even when I close my eyes I can see the intense, flashing lights. It feels like there is a train thundering through my head. Am I safe? Will I be ok? Where is mom?

This is my interpretation of what my brother experiences during a fire alarm. Including my brother, there are four people in my family. My mom, dad, myself, and my 11-year-old brother, Ru. We are a transracially adoptive family, meaning that my parents, who are white, are a different race than me and my brother. I was adopted from Ethiopia, and my brother was adopted from China. My brother is autistic, which we have known since he was very young. He also has Tourette's Syndrome and is developmentally delayed. Despite these challenges, my brother is the happiest person I know. He has this uncanny ability to find joy in the smallest and most insignificant parts of our world, and then share his joy with us. As my mom says, "He notices things others probably don't notice. He can remember exactly how many doors or lights or signs his favorite trains have on them and draw them from memory." His brain works in a way that other people's brains don't, which is a blessing as well as a constant struggle. Like many autistic people, Ru struggles with occasional sensory overload. If a sound is too loud or food doesn't feel right in his mouth, it becomes overwhelming. "When he was younger, this happened in public fairly often and looked really concerning to other people, I'm sure, since all we could do was comfort him until we could get him to a quieter place where he felt safe," said my mom.

Autism, also called Autism Spectrum Disorder (ASD), is a brain disorder that affects cognitive function. Autism is consistently referred to as a spectrum because of the different ways it can affect different people. This spectrum can also refer to the severity of the symptoms. Autism symptoms usually reveal themselves in the first year of someone's life, and many people are typically diagnosed in early childhood. One of the primary effects of autism is the inhibition of communication between the autistic person and their caregivers, family, and peers. Children with autism will sometimes interact without eye contact or physical interactions. In addition to these barriers, most conversations with an autistic child often revolve around topics of interest. Despite these challenges, some children and adults with ASD are capable of all normal daily activities. However, many others still need support throughout the day. There is no cure for Autism Spectrum Disorder, however, having supportive people in your life and getting treatment early on can make a big difference.

"ENOUGH!" A loud shout reaches my ears from across the dinner table. We grow silent. My brother, who had previously been sitting quietly, suddenly took offense at our laughter. My dad, the loudest of us, quieted down."What's wrong?" asked my mom. "Just stop laughing!" Ru repeated. "We aren't laughing anymore, but we are allowed to laugh, Ru," consoled my mom gently. "Nope!" Ru disagreed. Frustrated, I push away from the table and head to my room. My dad had just told a joke. The joke wasn't at my brother's expense, and there was no reason for him to freak out. Even though I understand that he just didn't know why we



were laughing, and why it was so loud, it was disappointing to be interrupted from experiencing a moment of laughter with my family.

People with autism can also have a more difficult time communicating with other people. Sometimes it is because they don't understand social cues, and other times, it can happen as a result of not wanting to talk about things outside of their special interests. For example, Ru's favorite things are butterflies, Harry Potter, and trains, which he has been obsessed with since he was a baby. His interests do rotate, but when he becomes invested in something, it lasts for a long time. When a conversation isn't about one of those three topics or one of his rotating interests, he isn't super receptive. "I think those things are always going through his brain even when others are talking, and he can suddenly blurt stuff out about those topics because he doesn't even notice other people are talking about something else. While in his head, he's having his own imaginative thoughts about his favorite things and just wants to share them," my mom commented. Ru also has delayed receptive language– it takes him longer to comprehend the things that are being said to him. He also has delayed expressive language, which means that it takes him longer to respond and say what he wants to say. As my mom explained, "He's had years of speech therapy and social skills lessons, both privately and at school, to help with these, and it's gotten so much better. But Ru often seems like he understands things when he really doesn't, which can be tricky. He can seem clueless or rude when he actually just doesn't understand what's going on around him very well."

Ru does many things that kids with normally functioning brains do. He just does them differently. For example he recently joined the Special Olympics as a swimmer. Childcare doesn't really work for him because of his separation anxiety. That means that he and my mom are pretty much attached at the hip. It has gotten better in the past couple of years, but most kid friendly activities aren't accessible to him. Finding communities like the Special Olympics really helps Ru because of the complete lack of judgement and total positive support he experiences there. My mom, who frequently brings him to Special Olympics practices, can see it easily. She says, "He really lights up when he's with his team. You can tell he feels really comfortable and accepted there." However, those communities are often hard to come by. Even in our own family, it is hard for him to fit in. My mom explains, "Even extended family stuff is hard… there are expectations based on non-disabled kids that Ru won't ever meet because that's not who he is."

ASD is the kind of disorder that doesn't just affect the person who has it. It influences all of the relationships that the person has with other people, and often hits their family the hardest. Siblings can often feel obligated to assume the role of caretaker. Siblings of children with ASD have reported to feel negative emotions, including anger, embarrassment, jealousy, guilt, loss, anxiety, and loneliness. Because of this, ASD can cause barriers to the sibling bond. Furthermore, a study conducted by Giuseppe Quatrosi, Dario Genovese, Emanuele Amodio, and Gabriele Tripi stated: "According to the considered research, non-autistic siblings of autistic individuals experienced decreased psychological well-being, less perceived social support, increased aggressiveness and conflict-proneness, and higher levels of anxiety and stress impacting their quality of life." The effect of ASD on siblings of autistic children is an understudied topic. Not many people understand the effects of ASD or make the connection between a child with ASD and their sibling. However, one study conducted by Susan McHale and her colleagues revealed that siblings place a higher value on a relationship with their ASD siblings when they understand the disability, they have well-developed coping abilities, or when they witnessed their siblings having other positive interactions with peers.

"There are expectations based on non-disabled kids that Ru won't ever meet because that's not who he is."

"Where is the remote?" My brother finds me in the kitchen. I tell him I don't know where it is, even though I do. My mom didn't tell me if he was allowed to have screen time. He asks again. "Where is it?" This time I relent. I don't want him to be in a bad mood while I am babysitting him. I tell him to wait in the living room while I get the remote from its hiding place. He turns on YouTube and immediately starts watching a video with dancing trains. After he finishes the video, I ask him for the remote back. As I round the couch and put my hand out for the remote, our dog, Ringo, who acts as Ru's guardian, bumps into my leg. Ru refuses to turn off the TV or give me the remote. Annoyed, I try to grab it from his hand. He pulls away, starting to yell. At this point, we are wrestling on the couch, fighting for

possession of the remote. I eventually end up with the remote, but at that moment, I suddenly feel pressure on my right ankle. I have thin leggings on, so I can feel every sensation as Ringo latches on to my ankle. I scream. I try to stand up. I yell at Ru to do something, forgetting that he doesn't understand what is going on. I successfully push up from the couch, but Ringo follows, still hanging onto my ankle. Ru is still oblivious as I try to make my way to the kitchen and the swinging door that offers hope of escape. I don't make it to the kitchen. Ru has gotten off the couch and is beginning to push me towards the wall. He is still mad about the remote, and doesn't understand what is happening. My back hits the wall. My brother, taking advantage of the fact that I am trapped, starts grabbing for the remote I forgot was in my hand. I freeze. I can't think about anything other than the dog gnawing on my ankle. I don't feel individual teeth, only the recognition of pain. As I snap out of my dissociation, I yell at Ru to let me go, and throw the remote back into the living room. I hope Ru will follow it and release me from the wall. He does and I take my chance to get to the kitchen. I successfully get on the other side of the door and close it. I back away, heading now for the basement door, which actually latches, when Ru, looking for me, opens the kitchen door, and consequently lets Ringo into the kitchen. I retreat, running for the basement stairs. I close the door and take a deep breath. The door doesn't lock, so I have to hold it shut. Ru forces the door open only a few inches, but Ringo slips through the small opening anyway. At this point, I am crying trying to hold Ringo away from me, hoping that my mom gets home soon. Now, Ru seems to understand that something is wrong, but he doesn't know what. He tries to comfort me in the only way he knows how to in the moment. He hugs me. I continue to hold Ringo away from me via his collar. Then, I hear the back door open. She's home. My mom comes in and immediately realizes what is going on. She grabs Ringo, closes the basement door, and leaves me in the dark. I try to calm my breathing.

"Growing up with a disabled brother has taught me to find value in all people and things I might find insignificant."

Ringo is three years old. We have had him for a year and a half. He acts as Ru's therapy animal, sleeping in his room, and calming him down. That day, Ringo thought he was protecting Ru. Ru never had experienced dog aggression, especially since Ringo had never done something like that before. He didn't recognize that it was an emergency so he didn't do anything to help. I blamed the encounter on Ru, which wasn't great for our relationship. We have worked through it more now, but even months after the Ringo Incident, I was afraid to be alone with Ringo until he went to a dog trainer. Ringo has been a very good dog ever since.

Having an autistic sibling can also lead to positive changes in the way you interact with the world. For example, siblings often report having higher levels of tolerance, patience, compassion, and understanding. Siblings can be strengthened by having a family member with ASD, but it can also be stressful. A sibling's response to growing up with a child with ASD can be influenced by age, temperament, personality, birth order, gender, parental attitudes and modeling, informal and formal support, and resources available.

Right now, Ru is doing really well, partially due to the support he is receiving. My mom explains, "It's also helped to be around other families of kids with disabilities, to see doctors who understand Ru's needs, and to get Ru the therapy and medication he needs to feel better in the world." But another big reason that Ru is doing so well is that he is constantly growing and improving as a person. Sometimes, people forget that autistic people have the capacity to change and evolve, but they can. It can just take a little longer. "Ru is on his own learning trajectory. He's learning and growing all the time, just not at the pace of most of his classmates, and that's ok. What's most important is that he feels safe and connected at school and accepted for who he is," said my mom. When asked if raising a child with autism is harder than raising a child without autism, my mom said, "Well, yes, it's harder, but not for the reason most people would think. It's not that parenting Ru is harder, it's more like 'the world is harder for Ru.' I think our society isn't very understanding about disabilities. There's a lot of judgment, and school and social stuff and activities aren't really designed with kids like Ru in mind."

Growing up with a disabled brother has taught me to find value in all people and things I might find insignificant. I definitely agree with my mom. It can be hard to connect with disabled people in spaces that are built to keep us separate. However, what I have found is that when I do seek them out, it is well worth my time.

Life on the Line

Author's Note: My survival story is about my father, Dusty Thune, who was a firefighter at the Falcon Heights/Lauderdale Fire Department for 5 years. The storyline is centered through some of the experiences he faced in his career, and the hundreds of lives he saved along the way.

Written by Ingrid Thune

My dad's days as a firefighter were pretty normal, at least until the fire pager went off. Then it was time to get to the station and jump on a rig to answer a call. He was in a small department that was not staffed by full-time firefighters, meaning that they came from areas all over the city to man the trucks and answer calls. Once at the station, he donned his bunker gear, and hopped into one of the fire engines.

For cases like a car accident, they would drive truck #752, a special rescue engine that housed the "jaws of life," a hydronic tool that could cut a car in half, and other extrication equipment. Fire calls involving multistory buildings meant that they needed to use truck #757, which had a 100 ft ladder on the back, and a combination engine system that released 750 gallons of water per minute. After rescues, my dad would wash down all the rigs, replace or service all equipment used on the call, clean his bunker gear, restock supplies, write-up the call for the call log, then finally scrub down, rinse, and hang-dry the fire hoses in the hose tower.

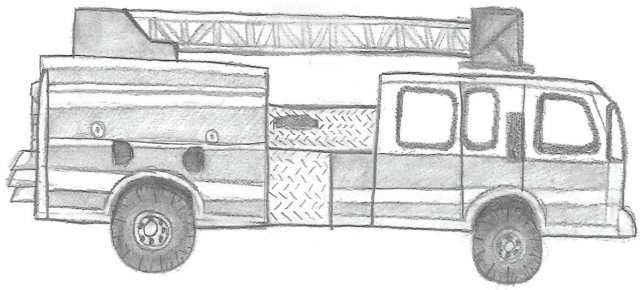
One afternoon, the fire pager went off — the Industrial Chemical Plating Corporation was up in flames off Larpenteur. It was the biggest fire he had ever witnessed. When he and his crew arrived at the scene, they found that they were going to be battling three major chemicals that kept the fire going in the building. This meant that only water could not kill it, they needed Class AFFF foam. This is used specifically for chemical fires, because it's lighter than water and smothers the flames. There was so much melted plastic and caustic fumes. Smoke rose from the industrial plating and tainted the air quality, causing damage to anyone who breathed it in, sending many rescuers and victims to the hospital. They pumped 475,000 gallons of water that day, which beneficially diluted any chemicals drained into the storm sewer system.

Firefighters are usually the first point of call for domestic emergencies, meaning they are frequently exposed, first hand, to traumatizing situations. Firefighters repeatedly put themselves in danger to rescue the lives of others from emergencies such as fires, vehicle crashes, certain injuries, natural or artificial disasters, and more.

On September 11, 2001, four planes were hijacked by 19 Islamist terrorists, and flew two of the planes directly into the twin towers at the World Trade Center in New York City. Hundreds of firefighters and first responders fled into the burning towers, and evacuated over 25,000 civilians. 343 FDNY firefighters died on duty that day.

During the first plane-strike, my dad was in bed. By the second, he was on his way to the fire station to cover the University of Minnesota Twin Cities campus. He was told that the University was on a list of potential targets, and that he would be staging to go out until further notice. "I took an oath to protect people, and felt that it was right where I needed to be. Sitting in the cab of Engine #753 in full turnout gear, listening to the scanner for possible airplanes headed our way." He was scared, confused, nervous, and overwhelmed with emotion. "I didn't know if I would make it out alive. No one knew what was happening, just that we were under attack."

After the twin towers had collapsed, tens of thousands of responders across the United States were called to Ground Zero in search of bodies under the 1.8



million tons of debris. The search and rescue went on for nine months after the initial attack, and officially ended on May 30, 2002. It's estimated that 400,000 people were exposed to the toxic environment following the collapse. Studies by The World Trade Center Health Program (WTCHP) have found that 19,000 first responders, and nearly 17,000 civilians have died from cancer since 2001 due to the toxic chemicals, dust, asbestos, and carcinogens in the air. It is so heartbreaking to me that over twenty five years later, thousands of first responders and survivors' lives are still being lost from exposure to Ground Zero. I've told my dad many times how grateful I am that he wasn't sent, because I know that if he was, the chances of him having cancer or not being alive today would be incredibly likely.

"'I took an oath to protect people, and felt that it was right where I needed to be. Sitting in the cab of Engine #753 in full turnout gear, listening to the scanner for possible airplanes headed our way."

Even off duty, my dad was taught to put the lives of others above his own, and he's continued to do that for his entire life. On his honeymoon with my mom, in Playa Del Maya, Mexico in October of 2005, they were hit by Hurricane Wilma, a category 5 hurricane with winds that reached an intensity of 185 mph. Everywhere and everything was flooded, including an entire tour bus that was full of sick and infirm people. They were trapped in the bus as it began to sink into a flooded ditch they had attempted to cross. My dad was the only person tall enough to be able to wade himself through the six foot deep mud, so he carried the passengers one at a time back to dry land and the Mexican Military. Hurricane Wilma lasted only two days, but being awake for every second of those 48 hours made it feel like the longest span of his life. When my dad went to the hotel room to retrieve their luggage, he found himself face to face with a crocodile that made itself a little too comfortable on their bed. He slowly reached for the suitcases, and was able to make it out safely. My mom and dad were stuck in Playa Del Maya for 5 days. They were barely able to communicate with their families back in Minnesota, who had no idea if my parents were safe or even alive.

One of the only times I was unlucky enough to witness one of these moments was in the car with my dad on the way to one of my final driver's ed classes. We were running behind, arguing, and I was freaking out. On the first day of class, the instructor told us that if we were ever late, he wouldn't let us in. It felt as if we were catching every red light. I remember it like it was yesterday. We were driving up Montreal, about to turn left onto West 7th to get to Highland high school. Just as I was about to complain about missing the green arrow, and our ability to turn, a kid flipped over the handlebars of his bike right in front of us. He slammed his head straight into the ground, and laid still. Luckily, he was wearing a helmet. My dad immediately stopped the car and ran to the boy's limp body. He got down onto the ground and moved him into a spinal recovery position, holding his head still as he yelled for a nearby witness to call 911. I somehow got out of the car and just stared at him. Eventually the ambulance came, what felt like hours later. They rushed the kid to the hospital, but after that, we could only hope he made it out alive. My dad had been retired from firefighting for nearly two decades at that point, but his rapid crisis response was still perfect.

My dad always wanted me to become a firefighter like him, and I used to believe that was my calling. But with all of the things my dad has seen, shaping him into who he is today, I knew I couldn't. He's lived through so much, more than I can even imagine, and way more than I could ever handle. Whether it was being a first responder, a lifeguard on the dive team at Phalen lake, or even a special education teacher, my dad is the strongest person I know. I'm so incredibly grateful and lucky to have him in my life. I often think back to all of the times he put his own life on the line to save others, and all of the many other risky jobs in our society that so many others risk their lives for. Where would our world be today if there wasn't anyone that chose to sacrifice their safety for a career?



Away from Trouble

Author's Note: The following is a true story about my dad's upbringing in Colombia and how he eventually ended up in the United States. He lived through many hardships, including foster homes, homelessness, and rough orphanages, before he was finally adopted by my grandpa, Rev. Delwayne Hahn, and brought to Minnesota.

Written by Carlos Amaya

My dad, Jairo, was likely around four years old when his mother said the words that would change his life forever: "Jairo, we need to make a change. It's going to be temporary, but I'm going to send you to the city, and you're going to stay there for a week."

It was a beautiful day. The sun sparkled off the mountain tops while a cool breeze drifted through the valley. As the morning dragged on, Jairo and his mom walked the several-mile trip to the bus stop. When the two finally arrived, it was early in the afternoon, and the wind had disappeared, making the valley hot as the sun beat down on the gravel road. As the bus came up to the stop, crunching the gravel beneath its wheels, Jairo's mom turned to him and said, "Jairo, you are going on the bus by yourself." Not expecting to ride the bus alone, Jairo became frightened and began to cry. His mother attempted to reassure him by insisting it was only temporary and she would come to get him in a week. However, her attempts were in vain, and Jairo lay flat on the ground, his chest pressed against the hot gravel road, sobbing and grabbing onto his mother's leg. As the scene unfolded, the bus driver was becoming impatient, and despite doing everything he could to not get on the bus, Jairo eventually found himself in a bus seat, watching his hometown fade away.

My dad was born in Suesca, a small town located in the mountains, roughly an hour and a half drive from Colombia's capital, Bogotá. Suesca rests at an altitude of 8,900 feet and covers just 68 square miles. In his free time, my dad would play in the grassy fields flanked by the massive walls of rock that bordered his town. He lived with several other siblings, with whom he would play in the mud and snack on vegetables from the garden, his favorite of which was raw peas.

Looking back, my dad says he believes that he was sent away because his mother could not afford to raise him. He remembers a time when she was walking around the town looking for work. Shortly after, she decided to send him away. He does not know what happened to the rest of his siblings, but he suspects that maybe he was sent away because he was the youngest.

Jairo arrived at a foster home in the bustling city of Bogotá. Instantly, he felt scared; he was alone in a new environment and did not know what to do. In the home, there was another child, a girl, in a similar situation to him. Jairo's foster parents showed him to his room and coldly told him the rules of the house and his responsibilities. There were no toys, no easy or welcoming transition, just a room and a list of chores. He was told to clean and cook, things he had never done before because he was so young, and to him it felt like punishment. All his memories of the foster home were unhappy. It felt as if every spare moment of free time he found would turn into more laborious housework. But it wasn't all bad; Jairo's foster family took him to the Catholic church every Sunday, and during the week, they sent him to school.

He walked to school every day wearing his navy blue pants, ironed to perfection, along with a clean white shirt. Even though he always left on time, he would often get in trouble for arriving at school late. The punishment for his slow walking was a sharp smack with a ruler on the back of his hands.

At home, he would be punished if he made mistakes; at school, he would be punished for being late. Sometimes he didn't even know what he was being punished for. One day, Jairo was behind schedule, so to make up for the lost time, he decided to run to school. He ran oblivious to his surroundings, completely focused on making it to school on time. Then all of a sudden, bam! It felt like a strong gust of wind hit him, throwing him to the ground. And just like that, everything went black.

He woke up in the hospital in agonizing pain, where he learned he had been hit by a car while crossing the street. This was his final straw. Feeling as if he was being put in danger and fed up with the chores and punishment, he decided to run away from home. He ran and ran, hoping that someway, somehow, he would be able to find his way back to his hometown of Suesca. Yet despite his best efforts, it was hopeless for a five-year-old boy running through the streets of Colombia's largest city, and he was soon caught.

Jairo was brought back to the same foster home, and

it felt as if he was punished and worked more than ever. He was told to cook and to vacuum, things he had never done before. He would even burn himself attempting to cook on the stove. One time, while he was going about his chores, he accidentally left the vacuum running. The home's vacuum had a motor, and left unattended on the wooden floor, it began to burn the floorboards. When the adults came home, Jairo was terrified of what they would do, what punishment he would receive, and so he did the only thing he knew how: he ran.

This time, he was determined not to get caught, and so he took a bus, getting as far away from the foster home as he could. Now alone, out on the city streets, Jairo had to watch others to learn how to survive. One of the first things he learned was not to sleep at night. Instead, he stayed awake and on the move, as to avoid violence or theft. He found time to sleep during the day, sometimes resting so well he wouldn't even remember how he got there. And yet there were times when he wouldn't sleep at all, because his usual spots were taken, or he simply didn't feel safe. Using cardboard as his mattress and newspaper as his pillow, he learned the best places to sleep were high ledges underneath bridges. He was always on the move, always searching for the next bridge, the next refuge.

One day, Jairo made a discovery. He was sleeping near a construction site, and littered all along the sidewalks were small carts handing out foods of every kind. After watching them for several days, he started to form connections with the vendors; some were even generous enough to give him leftover food at the end of the day. After a while of eating leftovers from the food carts, he made yet another discovery. He saw other children sitting on the side of the street holding their hands out. They were asking for work, offering to watch cars while people went about their business, in exchange for money. He would yell out to people on the street offering to watch their cars, and as soon as he got his money, he would move on to the next customer, and then the next. As a kid, he thought he was doing a great job making money, and even though the cars weren't really being watched, he felt it was his first job. Using the money from watching cars, he would buy food, although more often than not, he would end up losing everything he had.



For Jairo, every day was about surviving. Parks became one of his favorite spots, because they were clean, well-lit, and often adorned with fruit trees, his favorite of which were cherry trees. Believing the fruit to be free, he would take them from the park to snack on. But still, he was always moving, always running. Oftentimes on the street, people would approach him asking him to join their groups, but he always refused, instead choosing to fend for himself. He just never had it in him to trust the strangers he met.

Then just as suddenly as it had started, Jairo's life of living on the streets came to an end. He was found by the city police and taken to an orphanage. It was a rough place, an orphanage where children were processed and cleaned before being moved to a more permanent location. His hair was completely buzzed off and sprayed with a solution from a can. He felt like an insect. Later, he would come to learn that this spray was to kill off lice. There was no shower when he arrived; he was simply grouped up with the other children and hosed down in a cement room.

In the orphanage, life was rough. Jairo would often find himself being bullied by the bigger kids, always standing his ground and only fighting when necessary. If he could manage it, he would simply ignore them and keep to himself.

One day, while playing around in the courtyard, he noticed a tree standing in the corner of the wall. As the days passed, he began to study the area and eventually came to the conclusion that it was feasible for him to climb up the tree, over the wall, and escape from the orphanage. So that's what he did. Waiting for the perfect moment to set his plan into motion, he ran over to the tree in the corner, slipped over the wall, and out into the

bustling city.

For a while, he went back to his routine of moving through the city, always fighting to survive, and searching for a way back home. However, this didn't last long, and he was soon caught and brought back to the very same orphanage. This time, he wasted no time in escaping and ran away the same day. And so Jairo went back to the same routine of constantly moving and living on the streets. He lived like this for what felt like a long time, although as a child, living day to day, time was a tricky concept. Eventually, he was caught again and brought to the same orphanage he had been in the previous two times.

"Jairo's foster parents showed him to his room and coldly told him the rules of the house and his responsibilities. There were no toys, no easy or welcoming transition, just a room and a list of chores."

By this point, Jairo had begun to make a few friends in the orphanage, and they recognized him upon his return. But he was still unhappy. Even the few friends he had were out of necessity for survival rather than a genuine connection. And so, once again, he planned to escape. He wandered away from the playground, towards the tree in the corner, climbed the branches, and just as he was lifting his foot over the fence, he stopped. "I'll just be caught again," he thought to himself. Concluding that there was no point in running away, he turned around and went back inside.

It was uncertain how long Jairo stayed at the orphanage in Bogotá, but eventually, he was moved to a new orphanage in the mountains, outside of the city. They told him that for his own safety, he should not run away because he would not survive on his own in the mountains. The mountain orphanage had a school which he would go to during the day and two sets of staff, one for the morning and one for the night. The orphanage only housed boys and was very well structured and organized. The staff were very nice to Jairo and the other boys, however being made up of boys of many different ages, there were often arguments and confrontations. For Jairo, this was simply a fact of life. The boys would often form groups, always fighting over one thing or another. The older, rougher boys fought with rocks, throwing them at each other. Of course, there were also the fist fights, much more common than the dangerous rock fights. It was in this orphanage that Jairo met his best friend. His name was Pedro, and he took Jairo under his wing, teaching him how to stand up for himself, how to fight, and most importantly, how to avoid dangerous situations. It went like this for a while, living day by day, never knowing who was going to pick a fight.

He lived in this orphanage for around two years, which he counted by the coming of Christmas each winter. Every Christmas, each boy in the orphanage received the same toy: a bright red, Coca-Cola truck filled with candy. Jairo loved his Coca-Cola truck. As soon as he got it and emptied it of the delicious sweets inside, he would dig a hole in the dirt and bury it so that nobody would take it. Unfortunately, he did not remember where he had hidden the truck when he went to look for it, and so when the next Christmas came around, he was brimming with excitement. Sure enough, he got another Coca-Cola truck that winter, and every day he would play with it and hide it when he was done.

In the orphanage, there was a large concrete structure in the shape of a boat. The boys in the orphanage would play king of the hill, battling for control of the boat. One day, as Jairo was playing with the other boys, he was accidentally pushed off the boat. He landed on a large metal drum, slicing his hand open. As he got up, blood began pouring out of his hand, and the adults ran over to try to stop the bleeding. However, it was not enough, and the orphanage staff quickly rushed him to the hospital, where he received stitches to close up his wound. He stayed at the hospital for several days before finally returning to the orphanage with a scar that would never leave him.

Despite his accident, the orphanage was a place where he felt safe, never as if he needed to run away. Even with its dangers, he just took it as a fact of life and part of what he had to do to survive. Jairo even came to like school, to an extent. At the orphanage, school was very strict, and he quickly learned not to be late to class. Sometimes the teachers would take the children on hikes into the mountains where they would eat lunch while listening to fairy tales. For Jairo, the orphanage was a peaceful place, and often he would go off on his own to explore the rivers and lakes that surrounded the orphanage.

Jairo had been at the orphanage in the mountains for

several years when one day the staff told him they were going to take him back to Suesca to try to find his mom. Jairo was able to remember the area where he lived, yet despite their best efforts, they could not find his mom. Concluding that it was unlikely he would ever be reunited with his mom, the orphanage made the decision to put him up for adoption. Once up for adoption, Jairo was placed on a waiting list for a new orphanage. When a spot opened up, Jairo said goodbye to the mountains and moved back to the bustling city of Bogotá. The new orphanage was smaller and co-ed, with the girls living on the bottom floor and the boys living on the top. Jairo was given lots of freedom to go explore the city, and this time he always came back. The orphanage was his home now; he felt safe, never as if he needed to run away. There were hardly ever any fights, and when there were, they were never more than scuffles between children.

In Bogotá, Jairo got a job washing cars. He had two customers. One was a big red Jeep, his favorite color, and the other was a white car, which belonged to an older woman. She was his favorite because every time he washed her car, she would invite him inside for milk and cookies. He washed the cars once a week, and at night he spent the money at the candy store or the movies with his friends. But his favorite way to spend his money was buying sweet bread from the local bakeries. In the mornings, he could smell the sweet scent drifting on the breeze from blocks away, growing stronger and stronger as he got closer.

One day, the adults in the orphanage came to Jairo and told him he had the choice to go to Canada, France, or the United States. He asked what they meant, and they told him he was getting adopted because they could not find his parents. They showed him pictures of the places and told him the family that adopted him would be like his new parents. After thinking about it for a while, Jairo decided to pick France because he remembered it was where his friend Pedro had been adopted.

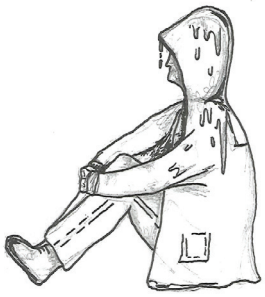
While he waited to be adopted, he moved to a new orphanage called Los Pingüinos. Los Pingüinos had recently expanded to a bigger and newer facility, and Jairo loved the fresh environment. In that orphanage, they told Jairo that France was no longer an option for him. He was very disappointed, but immediately he was swept up in a new opportunity: being adopted by someone in the United States. The adults in the orphanage showed him pictures of the US, and to him it looked like all the homes were buried half in snow. Eventually, they showed him pictures of the family he was going to be living with in a small town in Minnesota. At first, he dismissed the notion and focused on his toys and sweets. However, he soon learned that his new dad was coming to Colombia to visit and fill out paperwork. Jairo was judgmental and defensive at first, unsure of how to react to this news, but eventually he learned to accept this new development in his life.

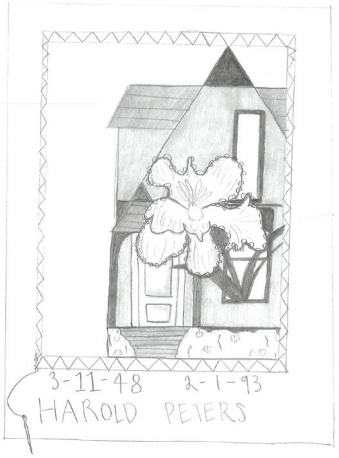
When his dad came to Colombia, they spent time together exploring the city and the countryside. Jairo's dad was very kind, buying him new things, including his first pair of pajamas and a little white bear, which Jairo always kept with him. After getting to know his dad in Bogotá, the time came for Jairo to leave for the US. When it was time to leave, Jairo found himself overcome with fear, scared of leaving the life he knew behind. And so he ran. He hid on the property of Los Pingüinos for the entire morning. Nobody could find him, and he didn't want to come out. He was scared to leave, and when they finally got him to give himself up, he was taken to the airplane in tears. Because of the drama at the orphanage, they were late to their flight, but he didn't care. He was a mess of emotions, mad, scared, and sad, all at the same time. Yet despite it all, he got on the plane, and as he watched the mountains of Bogotá fade away into the clouds, he remained strong, ready to face a new life in the United States.

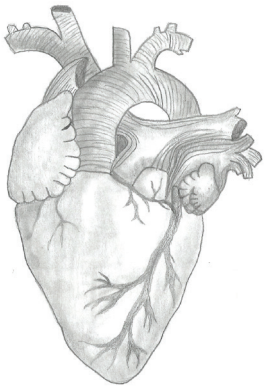
I first heard my dad's story when I was seven, around the same age my dad was when he came to the United States. Hearing the same story nine years later, I'm still amazed by the resilience and courage he had to make it through the numerous hardships he faced and find success as an adult in the US. When I asked him how he got through his childhood, he said: "The belief that I knew right from wrong." Because of his strong moral compass, he tried to stay out of trouble and out of fights, instead choosing to run away to a safe place. Running was his coping strategy and how he avoided trouble. "I feel like I was always running," he said. While he was a high schooler in Minnesota, he joined the cross country running team and learned to use his survival skill to compete. He continued running after high school, eventually competing in several marathons and an Iron Man.

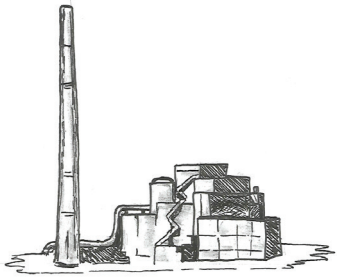
After recounting his experience growing up in Colombia, my dad told me he felt very fortunate and blessed to have survived. Since leaving in the 70's, he has not been back to Colombia, although he often tells me how he dreams that one day we can go back together to see the country where he was born.

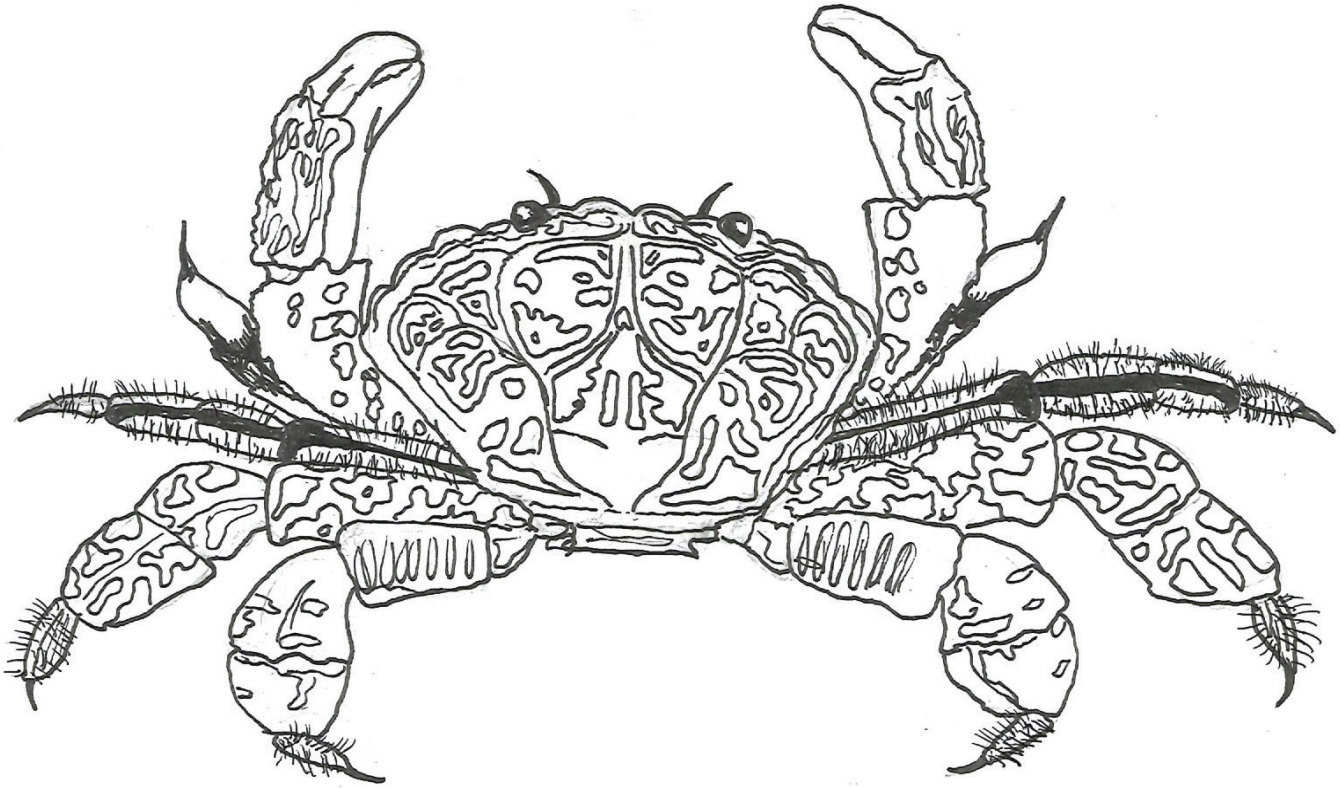





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HAROLD PETERS







We Survived Creating a *Publication*

Layout
Claire Ales

Copy Editors
Halie Karre, Kate Houle, and Rahnia Droogsma

Artists
Aria Kulseth, Remy Short, and Isabelle Best



50 stories, 50 pieces of art, 148 pages, and at least two rounds of editing. Every story– whether it's about camping trips, intense storms, triumphant revolutions, sports injuries, social anxiety, or the future of humanity–feels as if we've been handed someone's child; raw, vulnerable, and ready for us to help shape it.

Creating a book takes a lot of planning. Our first job was to categorize all 50 stories into seven topics. After that was done, we had to create a spreadsheet listing every person, story topic, title, category, and the editor assigned to read each one. We then created a Google Drive folder to assemble all the stories into the predetermined categories. We ran into the issue that many people had either not finished their story, not shared it with Leo, or we didn't have editor's access, meaning we had to track people throughout the school and ask them to fix the issue. After we had all of the stories in one place, we finally split off into our own separate corners, putting on headphones and preparing for the inevitable eyestrain and carpal tunnel.

On paper, copyediting seems simple. Read the essay, watch for misplaced commas, inconsistencies, and incorrect spellings. But we had fifty 3-plus-page stories to go through, each needing to be proofread twice with only three copyeditors and 3 days to finish.

Editing actually requires great care; each piece is a unique manifestation of the author's style and tone. Even the change of an m dash to a comma, or a semicolon to a period, has a tangible effect on how the piece sounds, and we had to be very careful to try and maintain the author's style of writing. The first round of proofreading took the longest. For each story, we had to look for mistakes, find multiple pull quotes, and heartbreakingly edit down pieces we simply didn't have space for. Some cuts were easy: overly descriptive exposition, redundant quotes, and, for some essays, merely editing out the sheer number of "howevers" or "althoughs" was enough to get it to a more reasonable length. Cuts got hard when it came to personal narrative, flowery—and we mean that in a good way—imagery, and wondrous descriptions of mental and emotional state that no doubt the author was incredibly proud of. Our job was not just to be grammar pedants, but to help the author publish a piece they were proud of.

As well as proofreading, we also had to create art for each story. Our designated artists were Remy and Aria. To them, the pile of 50 artworks was almost more demanding than AP Art. By day four, Aria's hand felt stuck in a drawing position, and Remy's eyes were twitching. As the tower of crumpled-up drawings continued to grow, the only thing that got them through was blasting ABBA, David Bowie, the Marías, Taylor Swift, and Tate McRae on repeat. Despite the challenge, seeing other people's stories come alive on paper was more than worth it.

By mid-week, all of us were caffeine dependent, and Halie was completely fed up with reading about boats. It became less of a sprint to the finish line and more of a gradual process of worrying about all of the details we could possibly worry about. We felt protective of the stories by then; they were more than just rows in our spreadsheet. So while Claire battled with margins and pull quotes in InDesign, we wrote an excessively nostalgic editor's note and came up with increasingly unrealistic titles for the book (RIP Survival 101). It's up to readers now to dive into these stories and find the potential in them. Hopefully, all of our work has made that a little easier.

Thank you for reading,
Claire Ales, Rahnia Droogsma, Kate Houle, Halie Karre, Aria Kulseth, and Remy Short.

