#### **UC Santa Barbara**

#### Raab Fellows 2024

#### Title

In the Absence of Sound

#### **Permalink**

https://escholarship.org/uc/item/06m5z9pv

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#### **Publication Date**

2024-07-30

## In the Absence of Sound



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### "What?"



#### "What?"

#### This is the word I say most often.

I was born deaf and have bilateral cochlear implants, so asking people to repeat themselves takes up a significant amount of my time. Yet, with advanced technology and my family's unwavering support, I have been able to work with my hearing loss.

However, even the most cuttingedge scientific advances cannot replace natural sound. I've lived my life not quite hearing the entire conversation, relying on lipreading and other aids to compensate where my hearing falls short. It is a constant struggle of being surrounded by conversation while comprehension is just out of reach. Sometimes, Iamlonely-caught between the hearing and deaf worlds, even as they cut and bleed into one another.

Living with cochlear implants (CIs) often requires an extra step or two. What

if I'm wading in the ocean and fall in? Not waterproof. Fire alarm goes off while I'm asleep? Can't hear it. Jumping on a trampoline? CIs go flying. Have to participate in a class discussion? It's difficult to follow a conversation as it bounces around a lecture hall. Challenges such as these are part of my everyday life, and I've found ways around them.

When I go to the beach or a pool, I put my CIs in a waterproof case. My room has a fire alarm that flashes light instead of sound. For physical activities, I can tuck my CIs in my hair. I'm still usually lost in discussions, but some of my professors wear a device that streams their voices directly to my CIs, and I always sit in the front.

Sometimes I feel like I am drowning, that if only a person was speaking a little louder, if I could read their lips more clearly, I could tune out all the background noise. But most of the time, I don't mind asking people to repeat themselves, because I like knowing what they have to say. My hearing may not be the best, but I am very good at listening.

### When my hearing failed

Cochlear implants are a relatively young technology. The internal component – the implant – is intended to last decades, ideally, a lifetime. When I was twelve, however, one of my implants failed, and I couldn't hear out of my good ear for months until reimplantation surgery. That implant was from a faulty batch that the manufacturer, Advanced Bionics, put under recall several years prior.

Wisps of dreamlike moments – some entirely random, others so painfully important.

My memories are soundless. When I close my eyes, the past is a silent film. The characters of my life speak and move in a haze without noise. One of my strangest recollections is an experience. I used to remember it vividly, yet it has long begun to fade, and even in the moment, it seemed like a dream.

When I lost half of my hearing, I was unsurprised.

I was twelve and my younger brother and I played in our fort made from pillows, blankets, and couch cushions. Mid-conversation, sound dropped away from my left ear, coating Leo's voice in a sharp, tinny film. Carelessly, I continued our play until the ringing in my head became unbearably loud. Only my inability to understand my brother's warped speech motivated me enough to go change my batteries.

I tried one battery, then another, and another.

My heart climbed into my throat and my unease reached a boil by the time my mom and I pulled down my old, dusty processors. I tried them on my left ear. Still, I couldn't hear even the slightest trace of sound. Terrified, I stared into my mom's face as she watched for any sign my hearing returned. A hundred thoughts and fears pummeled me. Her lips were my only lifeline even as her voice – mechanical and so loud, yet too far away to make out her words – was a stark sign that something was very wrong.

For the next couple of months, I could hear only out of my right ear, which wasn't my favored side. My parents had to explain to people that I could still hear but couldn't understand as well as before. I relied on lipreading more than ever, my other senses working overtime to make up for what had been lost. I could hear the world, but I couldn't understand many of its sounds. What was once clear was now painfully loud and high pitched, hammering the side of my brain, but still too hushed and far away to understand. I felt unsteady and offbalance, unable to distinguish the direction of noises.

While my dreams are silent, the

months I spent stripped of my better hearing have an eerie tilt. The tinny, warped sounds through which I perceived the world cast an uncanny shadow over my memories.

In my fifth grade class, my teacher's voice goes from echoey and booming in all the wrong places to silent. My battery died, and now that I only have one CI, there are no other options but to change it. While my classmates watch a movie in the darkened room, I go up to my teacher's desk and whisper, "My CI battery died, can I go get another one from my locker?" not knowing how loud my voice is – can she hear me, or am I too quiet? Or can everyone else hear me because I am being loud?

Sitting on the floor playing with my dolls, my grandparents are visiting, but I can't make out the conversation with my parents even though they are standing five feet away. I only know that their voices sound much farther away, except for some words, which are excruciatingly close by.

Technology has granted me hearing, yet it is likely I will undergo more revision surgeries in my lifetime. With each surgery comes the risk that my hearing will not return, that the electrodes available will decrease and my implants will lose their effectiveness. There are many other ways to communicate – lipreading and sign language are just a few – but in a world and society that is so reliant on sound, I would have missed so much if I were never able to hear.

### Invisible string

Conversations volley Back and forth Left, right, across An invisible string

I catch a glimpse
Of the tail end
Words slip off a tongue
I'm seconds late

A new speaker Catches the string

Back and forth Right and left it goes Until I'm tangled in knots Of invisible string

My vision trails
Behind their hearing

I have bionic ears
And they're creaky old things
A sentence comes from the left
I look right
Smile and nod

I curl up in a ball Wrapped in invisible string Pretend to understand

Shrink down
Away from a conversation
I lost, the first time
They threw the invisible string

Back and forth Skip and weave

I curl up even more
Tighter and tighter
Let the string slip away
Sink into water
The world gets a little muffled

Clarity

The string loosens
My friend pulls away a section
Stands close to my right

Toss the string And she unravels a thread

Slowly, the string turns opaque As she untangles the string I hear her Loud and clear And I read her lips

The conversation volleys
But the string isn't invisible
Every time I get tangled
My friend pulls away the knots

### **Artificial hearing**

Having two cochlear implants gives me insight into what "normal" hearing sounds like, and what a person might hear if they could listen to a cochlear implant. One of my ears sounds drastically different from the other. It sounds robotic, tinny, echoey, and words are often unintelligible. Often, if the processor on my good ear dies, I will switch my batteries so I don't have to hear out of my bad ear. But with just one processor on, something is still missing.

Dancing,

jumping to the beat,

faces half illuminated by the sagging faerie lights. The music

soars

and thuds, washing me in sound, clutching my heart.

A sharp drop,

and the world tilts.

The sounds war p, the bass disappears into the gloom, whistles scream into my mind, the world is tinny,

mangled,

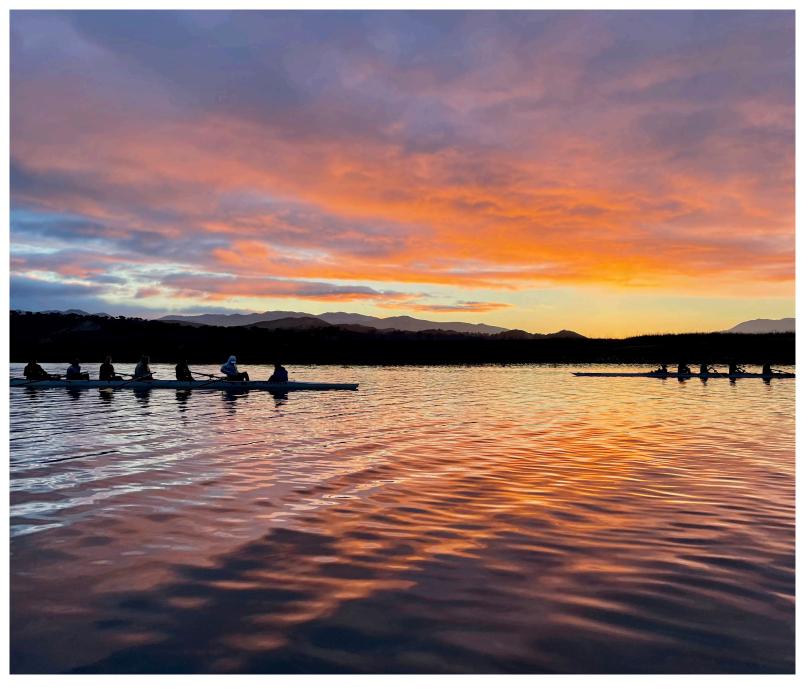
synthetic.

It hurts. I lurch to a halt. It's everything I can do to not scream in synchrony.

Agonizing sounds pummel my skull. I rip off the device hooked behind my ear.

The world is silent.
Sound is a phantom now.
The beat thuds, vibrating every cell in my body.

Calmly, I take the dead device off my other ear and replace it with the one that, just moments before, inflicted sharp agony. A moment passes and sound comes flooding back in. The world is as it should be. Yet, a dimension is missing. Sounds, once so beautifully textured and layered, lie soft and flat. Words dart and glide past, now incomprehensible. I couldn't understand the music if I tried. Disorientation grips me and I can't tell which direction the sounds come from, so they all converge at once. Half the world is silent, but I continue dancing.



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## Above water

When I joined the rowing team at UCSB, I told my coach that the boat could not flip with me in it, because my processors aren't waterproof. I thought staying above water would be the hardest part of the sport.

Instead, the biggest challenge has been hearing. On the water, the wind drowns out anything my teammates are saying. In the vans to the lake, I can barely follow a conversation, no matter how hard I try, only catching bits and pieces.

Over the years, I've grown to appreciate the small things. Individual conversations with a teammate. The synchronized click of the oar locks with each stroke. The sun rising over a sleeping world. This early in the morning, nature is akin to a dream, hazy and quiet.

I've been to Lake Cachuma hundreds of times, spent hours gliding along inches from water that is sometimes glass, other times three foot waves reminiscent of the ocean. The roar of the wind has become a familiar melody. I have become more comfortable in the boat, figuring out how to hear and feel the water move beneath us. Outside, I've learned to be content with letting the rhythm of conversations wash past me..

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Silence is not merely the absence of sound.

A piercing memory

Raging void that swirls with mimicries
Howling, fit to burst
crashes, crushes, carves a cavern

A shadow ebbs and flows

Sharpening

Still, an ever-present ghost

Dreams full of color, grayed Shouts echo, lips move

No matter how vivid the memory, sound remains just out of reach

The vibrations in my throat Never reach my ears.

I put on my cochlear implants

and I can hear my voice again

## Listening breaks

While having less than stellar hearing has its downfalls, there are some perks to being able to turn off my hearing at will. I can nap in the noisiest places, and I've been told that I've slept through some major events. This doesn't mean that I can just shut out the world at any time, though. It's uncomfortable for me to be outside of my house without my processors, and nerve-wracking if I am alone. Within the safety of home, however, I love nothing more than to take off my processors and just breathe. This can lead to some funny situations.

I'm studying at my bedroom desk when a brilliant white light flashes through the room. I look up to see the smoke detector emitting strobes of light. It flashes for several minutes before I reluctantly drag my chair over and pull the alarm off the wall. Unhurriedly, I make my way into the living room with what I know is an earsplitting alarm in my hands. I fiddle with it, lost in my own world.

My roommate comes running in, hands clamped over her ears. She says something, but I can't hear it. She takes the alarm from me and pushes at the

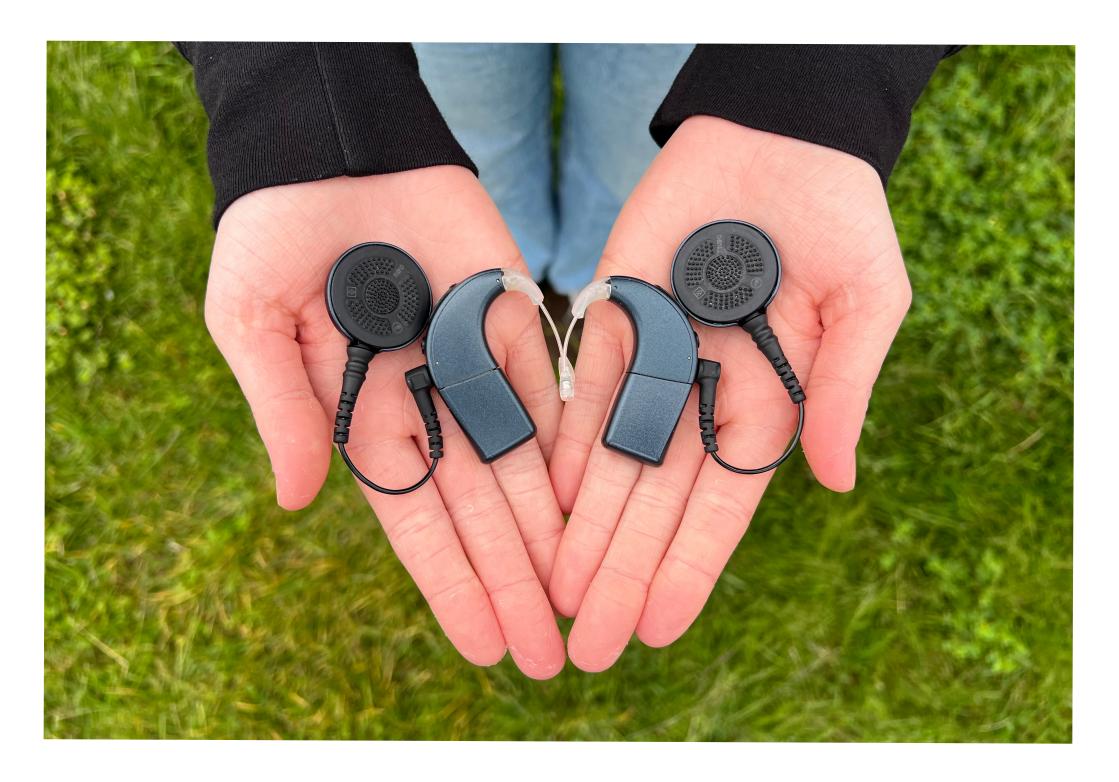
buttons, slumping in audible relief when she manages to turn it off.

I duck back into my room and grab my processors. She watches me hook them behind my ears, knowing to wait. The bridge between technology and sound takes a minute. I fidget, waiting impatiently.

A faraway beep that only I can hear. Then sound rushes in, punctuated by a much louder, drawn out beep directly inside my head.

"Ok, I can hear now."

"I was wondering why you weren't turning it off," she laughs.



# An Ode to the NaidaQ90s

My Naida Q90s are old and worn, and not waterproof

They endured a scorching 110 degrees canoeing down the Colorado River and freezing wind skiing in Lake Tahoe
Been drenched by the pouring rain in Isla Vista
Splashed with salt water in Mission Bay
Doused with a boat's worth of river in Oak Ridge

Sweat has crept into every crevice and I have replaced the ear hooks, cables, headpieces, and batteries more times than I can count

My Q90s got me through high school And into college

An upgrade five years in the making

This summer
I'll put the Q90s in a box
And start using the Naida Marvels
Finally get built in bluetooth,
compact batteries,
and more clarity

## "Can you turn on the captions?"

If captions are an option, I'm turning them on. If they aren't available, I'm not watching.

What would be the point?

My entire life, I've always watched TV with the captions on, and – maybe counterintuitively – the volume on low. Honestly, the audio doesn't add much; I can imagine all the sounds with just the captions.

When I was younger, DVD movies were the only media that were reliably captioned, everything else was questionable. Sometimes television had them, but it lagged. If I listened to music, I'd have to look the lyrics up.

This is probably why I was such a big reader, and still am. I love nothing more than to take my CIs off and read a book for hours. Books never have technological malfunctions.

For years, when my family would go to movie theaters, the captioning device they gave us wouldn't work, and my dad would have to miss the first fifteen minutes of the movie to get it fixed. The theater would give us free tickets for the inconvenience. It became a recurring cycle of using the free tickets, then getting more free tickets because the captioning device never worked on the first try. Now that I'm

older, I actually know how the device works and can usually troubleshoot on my own.

As I've grown up, closed captioning and subtitles for the hearing impaired have become far more widespread. Beyond movies and TV, we can stream songs and follow along with lyrics in the app, and automated captioning is available practically everywhere: FaceTime, Zoom, Google Slides, TikTok, and Otter.ai.

During COVID-19 there was a noticeable leap forward in automated captioning technology. It was hard for those of us who are hard of hearing during COVID because everyone was wearing masks, making lipreading impossible. At least now, the CC button is almost always available and will produce quite accurate real-time captions. Two years ago, Zoom didn't have a CC option at all. Now, it both exists and is incredibly accurate.

I hope that closed captioning technology continues to improve, just as I hope cochlear implant technology progresses.

"Can you turn on the captions?" is a familiar refrain. If I'm lucky, I won't have to ask. Someone will have already turned them on.

# My hearing runs on batteries

My processors' rechargeable batteries last approximately one day, sometimes more, sometimes less, depending on the age and size of the battery. I rotate them so that some are always charging, and do my best to keep backups with me at all times. But sometimes I'm caught unprepared.

I've never been a big concertgoer, because I usually can't understand what is being said and sung. In February, I went to Las Vegas for an Adele concert with my mom and grandma. Adele is one of my favorite artists, as her lyrics are easier for me to understand than most. When listening to songs, Apple Music's built in lyrics are my go-to. Unless I read the lyrics to a song, I won't know the words, no matter how many times I listen. During the flight to Vegas, I diligently listened to the setlist, reading

the lyrics on my phone. I wanted to be able to sing along to every word. From our seats in the Colosseum, I could see everything.

For most of the show, Adele's face was projected on giant screens so I was able to tell what she was saying. When the screens switched to different visuals, I lost track and had to borrow my grandma's binoculars so I could decipher Adele's words again.

The concert was spectacular, and hearing her live was unforgettable.

The day after the concert, I was scheduled to fly back to Santa Barbara and my mom and grandma were headed home to the Bay Area. There was a storm bearing down on the west coast, and my flight was delayed. On our way to the airport, I felt a tinge of unease – I hadn't brought a charger for my cochlear implant batteries, and I only had a few hours of hearing left.

As I boarded my flight, the pilot's voice crackled on the intercom. I couldn't understand him very well, but I got the gist: we might not be able to land because of the storm, but they were going to try anyway.

Huh?

My stomach sank. The different scenarios raced through my mind and I landed on the most daunting one – being without hearing in an unfamiliar place. I pushed the thought away and tried to reassure myself. I would be back in Santa Barbara in an hour, and everything would be fine.

When we were above the Santa Barbara airport, the pilot's voice sounded through the plane again.

"Unable to land... back to Las Vegas..."

A disbelieving groan echoed throughout the plane, and my stomach sank all the way to my feet. I asked the passenger beside me if we were really turning around, not fully trusting my hearing. By this point, my only remaining battery was beeping every 30 minutes now, indicating I had hours left before it died.

Anxiously, I texted my mom.

Thankfully, her flight hadn't left yet. We met up in the airport, right back where I started. My grandma was safely on her way back home.

"Olive, your batteries," my mom said, concerned.

"I know, I need to get a charger."

The problem was, it is difficult to acquire a cochlear implant charger on short notice, as they are not readily available to the public. Especially not for mine, as we soon learned. Desperate, I posted on a cochlear implant Facebook group, asking if anyone in the Las Vegas area had the charger I needed. People were empathetic, but no one could help. In the meantime, I had to conserve the battery I had left.

My mom and I could still talk, because I can read her lips better than anyone's. But with everyone else, in the Lyft, at the hotel, and in the restaurant, I was silent. I hovered while my mom checked in to our room. I ordered my meal at dinner, but didn't engage in conversation with the waitress. In the silence, Adele played in my head on repeat, her voice stuck in my head now that there was no sound to drown it out

The next morning, we went to a nearby audiology clinic recommended by a woman on Facebook. After a long wait, we found out they didn't have the charger we needed. My processors are old, 3 years out of date. We sat in the waiting room in silence, stumped.

Even my CI manufacturer, Advanced Bionics, was at a loss while speaking to my mom on the phone. Their closest office is in California, and with the storm, they couldn't get a charger to Las Vegas before I left.

We tried all the audiologists in the area. Some didn't handle cochlear implants, others didn't carry my brand, and many were closed. Finally, one clinic suggested another. When we got there, they were closed, but the neighbor offered a different phone number to try.

I watched my mom's face as she spoke. I could see her retelling the story. "Visiting... plane turned around... my daughter's batteries... dead... charger." She looked up, "What model?" she mouthed.

"Naida Q90," I said, hope sparking. She repeated it into the phone. We waited, then her face fell. Thanking them, she hung up and looked at me.

"They don't have the charger for it. Your processors are really old."

I know.

Giving up, we went back to the hotel. I felt unsteady without my hearing - off balance in a surreal world. "Rolling in the Deep" reverberated in the empty echo chamber of my mind. As far as I could remember, this was the longest time I had gone without hearing. I missed sound. The Grammys were on that night, but all I could do was watch.

On the way to the airport, my mom fretted over how I would communicate if the TSA tried to talk to me, or how I would know if any announcements were made if I couldn't hear. It would be fine, I reassured her (and myself). I could tell them I couldn't hear and use my phone's notes app or Otter.ai if they needed to talk to me. The Southwest app would update me on any changes to my flight.

In the airport, it's fairly easy to avoid conversation. There are so many people, all in their own little worlds. I looked straight as I beelined for my gate. While washing my hands in the bathroom, I avoided making eye contact in the mirror.

I almost managed to fully avoid conversation until the woman sitting next to me by the gate grabbed my attention. She said something and I looked at her in confusion.

"Sorry, what did you say?" I asked. She repeated her words, oblivious to the fact that they were falling on deaf ears. Reading her lips, I figured out that she was asking me to watch her bags. "Ohhh. Sure." I said, nodding.

When she returned, she said some more things, but I just nodded and smiled. I had no idea what she was saying, but even when I can hear, pretending to agree is usually the right answer.

When I finally landed, my friend was there to pick me up. She waited for me to talk, to see if I wanted to try to carry a conversation without hearing. I could tell she was enunciating her words more than usual, which helped me read her lips.

When I got home, I didn't beeline for my charged batteries like I thought I would. After 48 hours with no hearing, I had grown used to it. This project was completed as part of the Raab Writing Fellowship at the University of California, Santa Barbara.

I am grateful for the support of Dr. Ljiljana Coklin, my mentor Bob Krut, my editor Joe Schenone, and the Raab Fellows.

