

HEARING DIFFERENTLY

Episode 4: “How Can I Hear?”

Opening sounds: “Abracadabra”- Silent Partner (loud at first and then fades out)

Background music: “Deliberate Thought” – Kevin MacLeod

Hi everyone, welcome to the fourth and final episode of “Hearing Differently”. It was an amazing experience doing this podcast. I hope you all gained something from listening to these episodes. I’ve definitely learned a lot about myself. So, without further adieu, I’m your host Karina Cotran and today I will be talking about *how* I hear. I’ve mentioned several times the limitations that come with being deaf, as well the things that I have to do to compensate for it.

Like I have mentioned, I wear a Cochlear Implant, which is a device that connects to the auditory nerve that sends signals directly to the brain. This Cochlear Implant helps me hear. However, the Cochlear does not mimic perfect hearing. It still has its own limitations. What I’ve learned though is that the way I hear voices and music is different from the way those with with normal hearing hear them.

I was little surprised at hearing that. But think about it! The way I hear is through a piece of technology. And although technology is advanced, it does not mimic perfect hearing. Not yet anyways, there’s still hope! A lot of people ask me: “*how different* do you hear? How *much* can you hear?” And that is what this episode will be about.

SEGWAY: “Columns of Water” – Alexandre Navarro

Topic 1

I can’t accurately answer the question of how different I can hear or how much I can hear Why? Because, I’ve never experienced perfect hearing. Besides the short bout of partial hearing at birth that quickly dissipated as I grew older, I’ve only dealt with absolute silence, and the sounds that I do hear through the cochlear implant. I’ve had nothing to compare it to.

I remember an experiment being done in my fifth grade class to help other students understand my deafness and how much I could hear with my cochlear implant. The teacher had my fellow students put wax earplugs in both ears. And then she read off a piece of paper that had a list of random words on it. The students had to write down what they think they heard. After the experiment, a lot of them said they felt frustrated because they could only hear parts of sounds. Someone said that it was like hearing underwater. And I remember staring at them all thinking, “come on, it’s not *that* bad”. But how could I know? How could I know? I don’t have anything to compare my own hearing to.

So that’s as accurate a representation of how much I can hear that I can give you.

Now how about how different can I hear? How does it *sound*?

SEGWAY: “Columns of Water” – Alexandre Navarro

Topic 2

I asked my audiologist how it sounds to other people when I hear through my Cochlear Implant. And she said something that caught me off guard. She said that the way I hear things with a cochlear implant is considered “robotic” compared to how noises actually sound.

Upon hearing that, I laughed. I didn’t believe her. I had thoughts along the lines of, “come on, I know a robot sounds like...like R2D2 in Star Wars or something like that.” I remember thinking about the voices of my family. I wouldn’t say that my mom’s voice sounds anything remotely close to a robot. Like I’ve said before, how would I know for sure? This is the only way that I am able to hear. It is the only way I can hear.

I was always curious after that chat with my audiologist. I felt like that I was missing out on something more intricate, I still do feel this way some days. How do sounds *really* sound? I started questioning it. I won’t know myself, but you as my listeners can know how it’s like to hear through a cochlear implant.

There’s a video online that compares normal hearing to the way someone hears with a Cochlear Implant. I can’t tell the difference between the two...obviously because that’s how I hear either way. There are several videos below in the episode description that compare hearing speech to cochlear implant speech, as well as hearing music compared to cochlear implant music. Listen to these video and think of the differences. Does the Cochlear Implant video sound robotic to you? Is it electronic sounding?

I’ll be getting the perspective on the sound from a friend of mine, and I will share her opinion with you all.

SEGWAY: “Columns of Water” – Alexandre Navarro

Topic 3

So, I had a friend of mine listen to two different recordings from Auditory Neuroscience. The first recording was of speech and the second recording was of music. Both recordings compare the same clip as heard with regular hearing and as heard with the Cochlear Implant. The recording of the Cochlear Implant could also be called “vocoded”.

The first comparison of speech with the family viewing got some interesting results according to my friend. She said in the normal audio, the voice sounds like it has more of a personality. Like it is an actual person talking. She says it is easy to hear the words and

the sentences the speaker is saying. She remarked on the tone of the speaker, saying that it sounds more welcoming and “chirpy”.

Now she got different results with the Cochlear Implant or “vocoded” audio. She says the vocoded audio doesn’t sound human, it sounds very robotic. She says that the way the audio sounds is very hard to describe. That the voice sounds very monotone and almost “static”. She goes on to say that the voice sounds alien like in a sense, and because of this it is difficult to make out what the voice is saying.

From what it looks like here, what my audiologist said about how hearing through a Cochlear Implant sounds ‘robotic’ is indeed true. I can’t relate to what my friend said about the vocoded audio except for one thing. I find that a lot of times, based on audio alone and not lip reading, I sometimes have trouble figuring out what a person might be saying, especially over the telephone. So maybe the reason for this is attributed to the fact that the human voice cannot be technologically mimicked.

Now the second recording my friend listened to was an audio comparison of music. The musical piece was Beethoven’s “Kreutzer Sonata”. I have no idea if I pronounced it right. In the normal audio, the sound was crisp and easy to hear. My friend comments that she can even make out what instruments are playing. In contrast, the vocoded audio sounds like it was embedded in static. She was startled to find that it didn’t even sound like a musical piece. She compared the sounds to waves crashing into the ocean.

Alright, this comparison of the musical recording was one I found difficult to believe. I love listening to music on my iPod. I have a special set of headphones that plug directly into my Cochlear. However, the only relatable experience I have of music sounding like this is when I go out clubbing. This is a little difficult to explain but I can’t hear the music that well when I’m clubbing. To me it sounds like a dull roar with random beats mixed in. I never knew why I heard it like that. One theory I have is that, there are too many other sounds such as the crowd, and yelling, screaming that interfere with hearing the music. Plus, the acoustics could be bad in the venue.

So, take a listen to these two recordings in the episode description below. Is my friend correct in her comparison? Do you believe differently? Comment below on your opinions! I’d love to hear your thoughts.

Well there you have it! The comparison between hearing with a Cochlear Implant versus hearing normally. I do wish that I can hear how those with perfect hearing can, but I won’t complain. I am privileged to be able to hear *something*.

That’s the final episode of this podcast. I had a wonderful journey getting to this point and I hope you all did too. Like I said, if you have any questions, comments or want to share your experiences, please comment below! I hope you have a wonderful day, and who knows maybe I’ll keep adding to this podcast. On that note, thank you for listening and bye for now!

ENDING JINGLE: “Abracadabra” – Silent Partner