

Music Without Ears

Liisa Sammalpenger

22.1.2023

Aural Diversity Workshop 5

My Vibrotactile BIO

When I became deaf almost 50 years ago, I attempted to comprehend what my parents were saying to me, by holding my hand on the side of the neck. It helped a little. I started to use the method with my friends, as well. Years later after starting the national Project Deafened, I learned in cooperation with Swedes, that there is a similar person, with hand-on-the-shoulder was his Sign Name.

As for visual communication, I learned to use Finnish Signs, my friends developed a system of using fingerspelling in style First Initial Of Every Word With Clear Mouth is displayed. The Finnish language is written and spoken similarly. I learned Mouth Hand System (MHS) as well.

In 1977 – half a year after my surgeries - I attended a Nordic seminar. The evening programme was MUSIC. My reaction was: so boring! But then the head of information of the Swedish Deaf Association took me to listen to the music by touch.

So I listened to the concert from behind the players.

I was touching the neck of one ethnic instrument and sound box of another one. It was an eye opening experience. Or can we say body opening experience.

I learned that it is a totally normal everyday thing that a deaf person goes to touch the instruments.

Then I got a strong hearing aid with bone conductor from the hearing center. They did not have any of those gadgets that were on market somewhere in the world.

I have auditory brainstem implant(ABI) since 2004, but it has only 5 electrodes that can be used. It gives an even sound, same pitch all the time, noise. No rhythm or sounding.

In 2020 I experienced an ultimate moment, I attended the concert of Evelyn Glennie in Tallinn, Estonia, just 2 hours south from Helsinki. I had 2 interpreters along for parallel STT and signing with haptics. At the end of

this presentation you can see 30 seconds video about the translation of her music.

Direct Contact!

Direct contact to instruments is best. Were it piano, guitar, cello, contrabass. Not violin, it is too high pitch. Everything under 1000 Hertz is fine.

Wooden Spoons

The positive meaning of wooden spoons is that they are effective in listening to a person speaking or singing. The spoon gives better distance for parallel lipreading compared to your own arm. It is not just read the lips but also nostrills and eyebrows, the whole face is needed in lipreading.

The wood conducts sounds. Random experiments with different wood arts and shapes are done. The Canary Pine double spoon to the right is best by now. Because the other end to grip is quite ergonomic to the palm,

Tactaid 7 Tactilator

What is available in hearing aid - or so - techology? Nothing on market as far I know. Tactaid 7 is from 80's it has 7 "electrodes" for different pitch areas. Those higher than 1000 Hertz are available but they only tickle the skin. I wear it when I go to the movies and look like a suicide bomber.

Tactilator is an experiment from the 90's, I got an early prototype from Sweden. There have been other competing constructions, but they all disappeared, because cochlear implants marched in and saved so many deafened back to hearing world. The remnant is still without solutions.

Tactilator by Gustaf Söderlund

One can listen through Tactilator by using their palm. It has an ergonomic design. The size is suitable for Gustaf's palm size. The source of the sound is inside the wood.

The other wood piece is a random test piece, I got it from Gustaf.

Sheet Music

I don't hear-in-my-brain the exact sound like Beethoven when I read notes. Reading them gives some food for my imagination of how it may sound. Same as when reading a novel, I create the sceneries and figures myself.

Once I attended a seminar. At the entrance I was given copies of the notes. What??? The seminar began with 10 minutes of relaxation. The Audience closed their eyes and listened. I kept my eyes wide open. Watching the pianist playing, the other interpreter held the notes and notated for me where it was going on. The other interpreter used haptic signs, and my upper back

served as a piano keyboard.

Sing along

I want to sing along when I remember the melody of that song. The rhythm is important to know, otherwise it embarrasses others. I have the wrong pitch but I don't care about it. Just sing but not so loud in public. So interpreters, they are usually in those meetings and services present display with a pen on the song book or paper copy every syllable which is going on. Not a karaoke style that shows one word at a time. The syllables are important. Because I don't recognise the rhythm. You see my palm on the shoulder of the interpreter. Between fingers I have bone conductor of the old hearing aid.

Notation, bone HA knee-rhythm

Here you see multitasking. The interpreter is notating and giving rhythm to my knee. I am listening with old time body worn hearing aid which has a bone conductor end. I am holding it between my fingers. To avoid squealing, I must be careful to have enough distance between the bone conductor and the microphone of the hearing aid.

Describing Music by STT

To honor for 40 years of the deafened committee at The Finnish Hearing Association we started to arrange remote ballets and operas with remote describing music by STT. They are free recordings from the National Opera.

This is Wagner's Rheingold. Operas are provided with Finnish subtitles, which are *extremely* compacted translation from the libretto. Subtitles can be seen on the bottom of the screen. The STT is **produced** by Text on Tap. Viewers get a link to move to the top of the screen above the stage scenery as OVERLAY. STT can be followed also on a separate screen, on a tablet or even on mobile phone.

Interpreters are describing as following The text is a snapshot, translated from Finnish :

"The trumpet begins to accompany the orchestra and the melody rises to a climax with the gallantly played violins as the River-nymphs praise the Rhinegold!"

Sibelius Ballet

"The strings start playing a joyous tune - there is a feel of the market place lingering in the atmosphere. The violins play festively as if forming colorful pennants that flow with the wind. A clarinet enters with a ruminative sound." This is from a new ballet named Sibelius.

The interpreters who have a musical background prepare for the assignment by getting to know the material, for example which instruments are being played. They can also write some descriptions of the music beforehand.

Swan Lake Ballet

"The romantic moment of Odette is accompanied by the harp's heavenly sounds that chime brightly in the background." says the snapshot .

People want more music descriptions! OK - next Sunday we will have Snow Queen!

STT– writing what is heard

Sometimes you don't understand the language. So you write what you hear for the STT users. Just as others hear. That's equality.

Interpreting with haptics

Melody, intensity, rhythm can be given by haptics. Here the backs of two deafened persons are the platform – soundboard? To get an idea HOW the choir is singing. There is a big screen for lyrics (interpreters' screen can be seen in the picture). Balloons in hands are not seen in the pic.

Taikofon HUMU

These are nowadays equipment for listening to recorded music and music therapy. They work with BlueTooth. If you want to use them for live occasions an extra microphone is needed. What kind of microphones are available – need some assistance.

Just to develop them to level 2 to meet the needs of deafened people.

Helen Keller & Beethovens's Ninth

Since ancient times people have listened by loudspeakers :)

Touching the loudspeakers with hands, soles, ribs, buttocks. Sitting on, leaning to, hugging the loudspeakers.

Sound Bowls

My first experience with sound bowls was at the meeting of acoustic neuroma patients. The others had one working ear, I had none. I sat close to the table where all the bowls are at the start. The music therapist lets me touch the bowl which is played in her hands, the other time I listened

through the wooden table and air.

I got positive goosebumps and they return when I remember how it was like.

Multitasking x 3

I wanted to dance this waltz, listen to singing and check the lyrics if needed. So one interpreter had the lyrics looked up from the internet and pen. The other 'terp led me to the waltz and parallelly sang, I listened with fingers under her jaw bone, read lips and danced. Good old memories completed the impression.

Balloon Do It!

This cheapest equipment for receiving sounds through air is used in deafened people's gatherings. Also empty beer cans and milk jugs or plastic bottles are handy disposal gadgets. By saying this, let us not get the idea of sustainable vibrotactile devices diluted.

Wanted!

There is an urgent need to find
A keen developer for
new *cordless* vibrotactile devices

A keen carpenter for
designing wooden spoons
with best conduction ability and ergonomics

30 seconds video

Interpreting with haptic signs, STT description

Concert in Tallinn 14.2.2020

Sounds: Evelyn Glennie

Haptics: Kristian Välikangas

STT: Eiri Välikangas

Thank you for your attention!

<https://text-on-tap.live/overlay.html>