

Concert-going experience - a deafblind perspective

Russ Palmer, freelance music therapist, vibroacoustic therapy practitioner, deafblind

Stina Ojala, speech scientist at University of Turku, Finland, interpreter for the deafblind

Russ Palmer (RP): Hi, I am Russ Palmer, music therapist and vibroacoustic therapy practitioner. I am also deaf and blind. This is my colleague Stina.

Stina Ojala (SO): Hello, I'm Stina Ojala, speech scientist at University of Turku, Finland but I'm also an interpreter for the deafblind. Today we will talk about concert-going experience from a deafblind perspective.

RP: I should also mention that Stina also used to be a musician so she has knowledge of musical aspects of playing instruments etc., so we are combining our knowledge together to share with you the experience of a deafblind person going to a concert and then from a professional point of view the acoustics in the environment.

RP: On this slide, you can see there are two sections. I am going to focus on personal aspects. Now, for example a person who has deafblind condition may have hearing aids or cochlear implants. A hearing aid has ear moulds going into the ear while a cochlear implant looks something like this (shows cochlear implant on video) that has a magnet that goes into the skull and then it has a hearing aid-like device that controls the power. The soundscapes are quite different between them and each device may have a remote control. In my case I have this one, which is a very tactile device. I have volume

control, microphone sensitivity and 4 different programmes that allow me to increase filters, listen to music, adapt to quiet environment etc.

RP: In the venue they may have a special loop system, which is like a Sennheiser system, it may be like an infra-red type device, wireless, where a person may connect to a T-coil system. On my device I have master (M), master & T (MT) and T. What does it mean? That means I can hear myself with the T-coil and hear whoever is speaking or turn off the background noise and focus on the speaker or music or whatever. The only problem is, when you use this type of setting you get more a mono sound not a stereo sound you would get in an acoustic setting. The other point to consider is staff training and awareness. Many times I've been to venues like Albert Hall or the Festival Hall, I've asked for the loop system to be turned on and many of the staff don't seem to know about these devices, how they operate and how to charge batteries. That may make a big difference to someone who tries to follow a speech, a lecture, or just listen to music in general.

RP: What do we mean by a vibrosensoric experience? For someone who's deaf they may wear hearing aids, cochlear implants or no devices at all. How they experience musical vibrations is an interesting concept, and this is where both STina and I analyse the information what does it mean and what are we talking about. E.g. with hearing aids you may get one type of sound that may not be exactly clear, but maybe slight distorted especially if you get volume overload of different frequencies. Certain bass patterns can make the sound distort. Similarly with an implant you might get some similarities of distortions but not so much, as I have found myself,

I get a wide range of frequency response. I am also aware of the time I wasn't wearing my hearing aids, my body became more aware of the vibrations. Very often someone like Dame Evelyn Glennie [typo in video captions] has mentioned how she feels vibrations through her feet.

SO: And very usually the combination of vibrations, feeling the vibrations on your body and hearing the acoustics, either in a normally hearing person or a hearing impaired person that combination of both feeling the vibrations and hearing the sounds renders us a vibrosensoric experience. Overall, the music conveys the vibrations so that the style of music conveys the equal style of vibrations. So if the music is very intermingled it means that we have very intermingled vibrational patterns. So maybe in that case, perhaps more simplistic music might be easier to perceive also vibrationally.

RP: Yeah, if I think of certain styles of music, e.g. I know some classical music can be tricky to feel because of the changing, swaying moves of the music. E.g. the Brandenburg concerto by Bach. When I first listened to that through hearing aids, I wasn't able to hear the high frequencies at all and then when I had my implants I was able to experience in a totally different and new way so the perception of how one perceives that music changes, as you your type of technology. Another point here is that some styles of music like Vangelis can be very flowing and very deep in tone and when we're using certain styles of music in music therapy session we have to consider this for people with hearing loss.

RP: Another thing to consider is what type of tones are being produced. E.g. when you play an instrument

or visit a concert venue, you may be exposed to different tonal vibrations, they may be either high, middle or high tones. And where are they felt across your body, this may vary from person to person but in general we can say the lower tones being in the lower part of the body, middle tones in the stomach area and high tones in different parts of the body, including fingers or even in the hair.

I know from my own work in the vibroacoustic area I was aware that some of the children who had profound learning disabilities somehow experienced these vibrations across their whole body.

SO: Yes, and also about going to a concert we all have heard about the room and venue acoustic and a lot has been done in research about the acoustical patterns as we think about the venue or music hall. But much less research has been done on the vibrations in the venue and the vibrational patterns that are felt across the music venue.

RP: When you go to a concert, one of the most important considerations is where you would want to sit, and for people using hearing aid devices this may vary. And I think most of people who use hearing aid type devices might want to sit in the front because they both get the visual information and get a clearer sound but it's varied from person to person.

Another example, for those who wear cochlear implants they might not want to sit so close as they may want a bigger soundscape. So they may perhaps sit more to the middle or even to the back. I know, myself, when I've been to different performances, it does vary enormously on the type of performance you are seeing,

if it is a classical performance or a rock band performance, instrumental, or even an individual soloist.

S0: Yes, and another point to consider about the seating order is the visual state of the person. That might also have a say on the seating preference. Because if you have say a little bit of vision you might want to concentrate on the soloist's performance, or if you know that there are certain instruments in the orchestra you want to follow, say the violin section then you would be seated next to the violins.

RP: If a person has a visual impairment it may vary enormously, they may have what we call tunnel vision that is why they may want to sit in certain areas related to their interests, so they can see the performance better and certain areas of interest compared to someone who may not have any vision where all they're really interested in is having a sort of sound experience. So there requires a certain amount of flexibility and bit of research beforehand to find out the name of the work what is taking place or if it is an opera. If you have a communicator guide or an interpreter with you it is possible you may have to do some research beforehand just to get familiar with the characters in the actual performance.

S0: And then we throw in another ball: vibrations in the venue. Because the room acoustics for the concert hall may be quite different to the vibrations in the same venue. So, whereas you have to think about what you are hearing but also what you are watching, but also the vibrations in the venue.

RP: This can be, for example, I remember one occasion

where there was a steel handle in the front and when you put your hands on that you could feel the vibrations very strongly. Or even if you're feeling the wooden floor, you can feel the vibrations through your feet and also through the chair. So, it depends on the materials you have available. From an acoustic point, if the room doesn't have enough materials to cushion or dampen the sound it may sound more echoey.

SO: Yes, I have a brilliant memory where I went to a rock concert. There was a metal handrail in front of us. Then what I did, I took off my shoes and I put my feet on it, and the music literally flowed through me. That was quite an experience. I was immersed in that music.

RP: So, it requires a bit of flexibility and experimentation, but there does need to be perhaps research that focuses on the strengths and weaknesses of different materials and textures.

SO: and this metallic handrail was the essence of thinking out-of-the-box and generally people do not realise that the structures in the venue do vibrate and you may want to think other materials that enhance the vibrations, e.g. ladies' handbags are a brilliant source of enhancing the vibrations.

RP: Another point here is that if a soloist is able to allow a person with a dual-sensory impairment to feel the instrument, there may be certain places where they can feel the instrument like a guitar e.g. if they place their hand on the end of the guitar they feel strongest vibrations or if they put their hand on the soundbox of the guitar. Again, that requires a bit more cooperation. Another point, like a cello, someone might want to put their hand on the

casing of the cello to feel the vibrations. But, you have to be careful and you need flexibility and cooperation.

SO: This far, we have been talking about what happens in the actual auditorium or where the performance is. But the difficulty sometimes might actually be to get into the venue from the main entrance to the auditorium. This is about the accessibility of the venues outside the auditorium. We start with hearing accessibility. With that, we talk about acoustics in the foyer. we talk about assistive hearing technologies in the ticket office. Then you would switch your device to MT or T.

RP: Very often these places can be very noisy so you might want to reduce the background noise by just using the T coil direct, so you hear the person directly.

SO: Yes, exactly. But we also can include here the flooring materials and their vibrational qualities so that it is soft enough, bit like in the Royal Albert Hall. They have carpets all over so it does not produce any sound so it may be very hearing accessible. Then we have the other point of the accessibility on flooring materials. Acoustical qualities with the dim lighting so might not be so visually accessible for a person who might suffer with night blindness. It doesn't only dampen the steps of people but it also dampens the possibility of hearing your own steps reflecting from the wooden floor.

RP: I think in some cases there might be a concrete floor that produces a very difficult sound perception compared to a wooden floor sound perception. When you

have a wooden floor, you have a springy feeling whereas a concrete floor deadens everything.

S0: Yes, and also visually accessible foyers do not have glass windows because the glass windows can produce reflections or glaring. Some people might even think that a glass window is just a continuation of the corridor you are in and might bump into the glass door.

RP: and of course you have the other consideration: design and architecture can also be a contributing factor of course. But they also need to consider the accessibility factor. So it is a very fine balancing act.

S0: Yes it is, and it's not enough to only think about the mobility issues but you really need to start to think about hearing and visual accessibility as well because if it's suitable for a person with a hearing and /or visual impairment, it's most often suitable for an able-bodied person as well. So it doesn't take anything away from the design, it just enhances it.

RP: Thank you for your attention and we hope we have given you an insight into how people with both hearing and dual-sensory impairments can experience concerts and venues and the problems involved.

We also want to say a special thank you to Sara Holloway in helping us put this video together.

S0&RP: Thanks, thank you! Over and out!