The Sound of Silence

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When you have tinnitus, and you talk to someone from a Tinnitus Group, or you see someone from Audiology, they will emphasise the importance of having SOUND in your environment, or 'sound enrichment', and avoiding being in near silence.

So why is it important to have sound rather than silence? Sound is natural to us; it lets us know we are part of a living, moving, changing world. I'd like to look at that in a couple of ways;
firstly, as it relates to the part sound plays in our everyday lives; and - *secondly,* as it relates to our perception and management of tinnitus

I was first really interested in the impact of sound on our lives when I read a chapter of a book 'Hearing and Deafness' written in 1947 by Davis and Silverman, which outlines 3 levels of hearing.

The first of those levels relates to language. It is thought of as hearing at the 'social' level, because hearing is used to comprehend language. Words are symbols for things around us, and for the things we do; for things not immediately present, and for abstract ideas. Through language, we communi-cate experiences, organise our thoughts, gain knowledge; learn social and moral ways.

The second level gives us a direct sign of events to which we make constant adjustments in daily living. At this level, it is not the word 'bee' but the sound of its buzz that makes us jump. We head for the fire exit when we hear the fire alarm; we take care crossing the road when we hear a car com-ing. We (hopefully) get out of bed when we hear the alarm clock; we see to the baby when we hear it cry.

So we not only hear sounds on a warning level, we react to them. On first hearing tinnitus, some people hardly react at all; they see it as just a noise and attach little meaning to it.

Others react to the tinnitus very much as a warning signal. What is it telling me? What if something's going wrong? We are highly alerted to sounds on this signal level. This comes from a survival reflex response - when we were cave men, we had to be alerted to warning signals, or potential warning signals, in order to survive.

The good news is that, over time, we can 'habituate' to tinnitus sounds - and become less 'alerted' to them. They can become part of the 'background' sounds of life to which we pay little attention.

At the third level, sound is not a symbol or a warning; it is the background sound of all daily living. At this level, we react to the tick of a clock, the distant roar of traffic, vague sounds of people moving in other rooms of the house - without being aware that we actually hear them.

These incidental sounds let us feel we are part of a living world and contribute to our sense of being alive. Davis and Silverman tell us that " we are not conscious of the important role which these background sounds play in our comfortable merging of ourselves with the life around us, because we are not aware that we hear them." (p461). "The real importance of this level of hearing is the creation of a *background of feeling' (p462) " it relates us to the world at a very primitive level, somewhere below the level of clear consciousness and perception."*

These background sounds are constantly changing, because the world around us is in a state of constant activity. In the natural world, and the man-made world, there is constant activity. The pattern of this activity changes with each moment and with different times of day. The third level of hearing helps maintain a comfortable sense of where we are - together with our readiness to react to *changes* in our environment as they occur.

At any given moment, one of these background sounds may vary and attract our attention. We may for example be listening to a film at the cinema when the person in the next seat starts to cough. We then become consciously aware of them, on another level; until we realise the coughing is insignificant and our attention returns to the film. Where we experience tinnitus, it can help to use sound alongside the tinnitus that does not draw our attention, perhaps from sound generators or environmental sound enrichment; so that our attention can return to something else, something of interest to us.

So - hearing is a combination of all three processes, all interweaving at the same time. We hear the symbols of language, the signal of the ringing telephone, and react to the background of sounds of which we are not consciously aware.

This familiar, comfortable relationship with the world around us is likely to be disrupted to some degree by the experience of tinnitus and/or hearing loss. And though it's tempting when you experience tinnitus to want to be in a quiet environment, it's much more helpful to have a background of sound.

Jonathan Hazell reminds us that the world of nature is really quite a noisy place, with a continuous background of natural sounds. But we have built solid houses, often double-glazed which retains warmth but excludes much external sound; and with soft furnishings that are sound-absorptive. This means that the rooms we live and work in can have very low levels of natural background noise, particularly at night.

Hazell makes the point that, in modern society, there is a tendency for more people to live alone, with more people, particularly older people, living alone in very quiet surroundings. With an increasing number of older people in the population, there are many more with varying degrees of hearing loss. Where hearing aids are not fully or properly used, this has the effect of creating a relative silence. Where you are straining to hear, you will increase the activity of your hearing system - and your awareness of your tinnitus - so it's important to use your hearing aids. If you're having difficulty with your hearing or hearing aids, tell us about it and we'll do our best to work with you to resolve the problems.

So, what are the 'sounds of silence'? In the 1950s, an experiment showed that, when people go into a very quiet room for five minutes, the majority of them will experience hearing tinnitus-like sounds.

Other experiments have shown that the hearing system itself increases in sensitivity when back-ground noise drops below a certain level, resulting in increased awareness of external sounds. There is more chance of being aware of weak sounds - including the normal activity of the hearing system - when we are in a very quiet environment.

The loudness of any sound depends on the contrast between the signal and any background noise. Think of listening to a car radio on the motorway, with the volume at a comfortable listening level. When you drive into a quieter place, the radio can seem to be uncomfortably loud.

For the same reason, tinnitus will sound very loud if there is no sound enrichment. It's a bit like lighting a candle: in a very bright room, the light from the candle will be barely noticeable. In a darkened room, the candlelight will seem very bright, and will constantly draw your attention. When in silence, the focus of the hearing system can only be directed to the one sound - tinnitus.

Remember too that different sounds have many different meanings to us, and the way we react to sounds or noises will be determined by our individual *interpretation* of their meaning. Think of when you answer the phone, and hear the voice of someone you enjoy talking to - then think of your reaction when you hear the sound of someone you really don't want to talk to at all!

Are there other sounds you find irritating? I really dislike eating noises, and shouting pop music!
How do you react to irritating, intrusive sounds? Are you able to move your attention from them? Or do you have a strong reaction, and perhaps get angry? How do you react to the sounds you enjoy? Do you find yourself smiling, perhaps relaxing?

Because we live in a busy world, we often wish we could get away from sounds, from unwanted noise; and relax in silence. In the natural world, silence is actually a warning signal, often indicating the arrival of a predator. The best environment for relaxation is not silence but one 'enriched' by nature sounds.

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