

Week 3 THE SIGNIFICANCE OF SOUND

The following is a summary of a paper published by Dr Jonathan Hazell in 1993

1. Warning Signals

Auditory system in animals developed acute hearing, in order to detect small sounds that might pose a threat to survival

Some sounds are perceived as threatening and produce anxiety. This ensures that appropriate action is taken in order to avoid attack

Other sounds could invoke a feeling of security or even pleasure

Every day, we have experiences with sounds that alarm us – such as a car horn; we also have sounds that sooth us – such as music, or the sounds of nature – sea, wind and rain.

2. Inside the brain

The auditory cortex (centre of hearing in the brain) has connections with the Limbic System (centre of emotion and learning)

The limbic system enables us to attach an "emotional label" to meaning of sounds. These meanings can change, depending upon how we feel

3. The relationship with tinnitus

Approximately 85% of people who have tinnitus do not find it intrusive, disturbing or anxiety provoking. This is NOT because their tinnitus is any less loud or of a different quality than those who do find their tinnitus intrusive

The tinnitus is very similar in those who are bothered by it and those who are not

The main difference is that those that find tinnitus troublesome perceive it as a threat, rather than as an experience which is of little or no consequence

4. Attentional focus

Alert to danger takes attentional focus in order to concentrate on Survival

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Tinnitus perceived as threat takes attentional focus and therefore we concentrate on

the tinnitus

5. Why should tinnitus be a "threat"?

- **fear that it represents something sinister e.g. brain tumour**
- **fear that tinnitus will go on for ever and get louder**
- **fear that tinnitus creates deafness**

Unfortunately, these fears may be enhanced by "professional advice" e.g.

- **nothing can be done about tinnitus**
- **you will just have to learn to live with it**

6. What do these feelings of threat lead to?

- **Threatening qualities of tinnitus are enhanced**
- **Emotional links are made and ensures the "sufferer" continues to focus attention on the tinnitus**
- **Inability to "focus" on anything else or on other activities**
- **Anger about the lack of treatment for tinnitus**
- **Anger about other treatment given e.g. treatment for anxiety, and they consequently blame the tinnitus for it**

7. Anger and guilt

These are very powerful emotions which greatly strengthen attentional focus on tinnitus

Tinnitus will only improve once these feelings have been overcome

They are the most common cause of prolonged distress from tinnitus in cases of litigation

8. Successful tinnitus management

A process of retraining and relearning

Once tinnitus no longer presents a threat, however loud or unpleasant it may seem, it begins to diminish and in many cases not heard for long periods of time

Firmly held beliefs are difficult to change, however, one wouldn't expect to retrain to ignore the sound of any threat without a new understanding and making the effort to relearn