Long-term effects of non-linear frequency compression on performance of music and speech perception

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Abstract

Previous studies have already documented improved speech intelligibility and music performance with the use of Non-linear Frequency Compression (NFC) technology. The present study uses a larger sample size (N=173) and allows us to explore more closely the effects of NFC technology on the long-term performance in music and speech perception. Using the previously described purposes for the study. It also allowed us to explore more closely the effects of NFC technology on the long-term performance in music and speech perception. The results of this study are valuable for the development of future studies and provide a basis for further research in this field.

Introduction

Music is an important aspect of our lives. It enhances the quality of a person's life, not only in terms of enjoyment, but also as a medium that models social structures and provides a means for human interaction (Cross, 2006). High-frequency hearing loss is a frequent occurrence in adults, affecting speech perception and music performance. A comprehensive understanding of the effects of hearing loss on music perception is crucial for improving the quality of life for individuals with hearing loss.

Methadone: The Influence of Non-Linear Frequency Compression on the Perception of Timbre and Melody by Adults with a Moderate to Severe Hearing Loss

Phonak AG, Stäfa, Switzerland

Participants & Methods

The study included 173 participants, with a mean age of 55.9 years (range: 26-68). Participants were fitted with hearing aids with NFC technology and were followed up for a period of 3 years. The study was conducted in three phases: baseline, 6 months, and 3 years.

Subjects

- Subjects consisted of 173 adults with sensorineural hearing loss (SNHL) who were fitted with hearing aids with NFC technology.
- Participants were followed up for a period of 3 years.
- Subjects were divided into three groups: baseline, 6 months, and 3 years.

Results

The results showed that the performance of music and speech perception improved significantly over the 3-year period, with the greatest improvement observed in the first 6 months. The performance of music perception improved by 9%, while speech perception improved by 12%.

Discussion and Conclusion

The results of this study suggest that NFC technology has a significant long-term effect on the performance of music and speech perception. Future studies are needed to explore the mechanisms underlying these improvements and to identify the conditions under which NFC technology is most effective.

References

