**VoiceID**

Marburg – 28-30.08.2024

https://www.uni-marburg.de/en/fb09/institutes/german-linguistics/phonetics/voiceid2024/abstract-submission

**Authors:**

Stefan R. Schweinberger1,2,3,4, Verena G. Skuk1,2, Romi Zäske1,2,5, and Celina I. von Eiff1,2

Email: stefan.schweinberger@uni-jena.de

**Affiliations:**

1Department for General Psychology and Cognitive Neuroscience, Friedrich Schiller  
University Jena, Germany

2Voice Research Unit, Friedrich Schiller University, Jena, Germany

3Swiss Center for Affective Sciences, University of Geneva, Switzerland

4German Center for Mental Health (DZPG), Site Jena-Magdeburg-Halle, Germany

5Department of Experimental Otorhinolaryngology, Jena University Hospital, Germany

**Title:**

Identifying Individual Profiles of Voice Perception Abilities in Cochlear Implant Users and their Relationship to Quality of Life (QoL)

**Abstract** (Max. 250 words).

Cochlear implants (CIs) give hearing to many deaf people with sensorineural hearing loss, but signals conveyed to the auditory nerve via a CI differ substantially from biologically transmitted signals. While extensive research exists on speech perception with a CI, research on the ability to perceive nonverbal social signals (emotional prosody, speaker gender, age, or identity) is largely missing. Where quality of life (QoL) is at the focus, this is more than unfortunate. This is because recent research from our group and other laboratories suggests that nonverbal abilities for communicating socio-emotional cues can be as important – and potentially more important – for QoL with a CI than speech perception. This holds not only for children (Schorr et al., 2009) but also for younger and older adults (Luo et al., 2018; Schweinberger & von Eiff, 2022; Skuk et al., 2020, von Eiff et al. (2022a,b). In this presentation, we integrate these recent findings, before developing a new perspective for what could be labelled CI precision diagnostics. Specifically, we discuss evidence to support our proposal that future CI diagnostics, by default, should consider a large range of communicative abilities and their relation to QoL. We particularly consider skills in four relevant domains of voice perception (emotion, identity, gender, age), but also speech perception and musical skills. We also present first results from a perceptual training program for vocal emotion perception for CI users, and discuss how the present approach could be relevant for future CI design and development. (243 words).

**Keywords**: Cochlear Implant; Diagnostics; Socio-Emotional Communication; Quality of Life

**Presentation preference**: talk or poster (talk preferred; to be discussed)