Prosody perception in cochlear implant users and vocoder simulations: A meta-analysis

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Introduction

- Linguistic / emotional prosody utilize a common set of acoustic cues → f_0, intensity, duration
- Cochlear implant (CI) users and vocoder simulation listeners process prosody less accurately

Research question

Is the negative influence of CIs or vocoder simulations on prosody identification found in individual studies robust across studies?

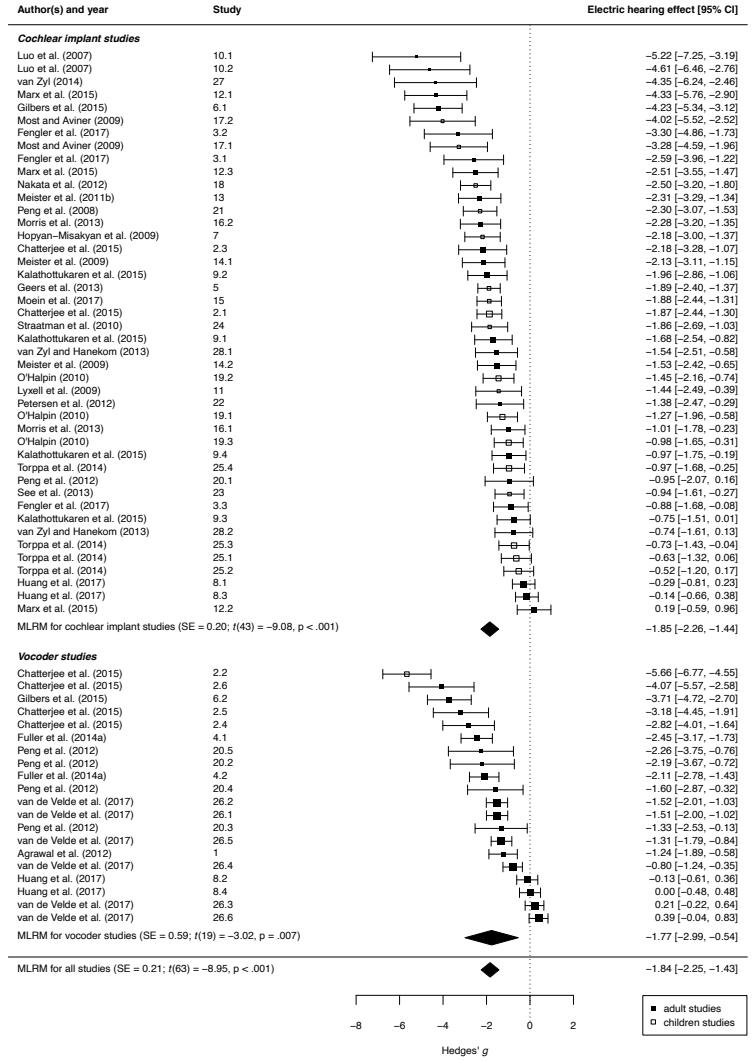
Methods

- 64 studies from 28 papers:
  - CIs / vocoder simulations
  - emotional / linguistic prosody
  - experimental studies
  - group studies
  - normal hearing controls
  - no noise
- Multilevel random-effects model to assess main influence of electric hearing on prosody identification
- Multilevel *mixed*-effects model to assess influence of moderators

Electric hearing (cochlear implant or vocoder) **limits** the **identification** of **prosody,** mainly due to the **poor transmission** of f_0

Hedges' g = –1.84

Scan to go to the **full paper**



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