

## UC Merced

### Proceedings of the Annual Meeting of the Cognitive Science Society

#### Title

"I hear you! But conversing together is a bit different...!": Interactional dynamics in children with cochlear implants

#### Permalink

<https://escholarship.org/uc/item/8fk5r90p>

#### Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 46(0)

#### Authors

Mazzocconi, Chiara

Hidalgo, Céline

Hallart, Charlie

et al.

#### Publication Date

2024

#### Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

# **"I hear you! But conversing together is a bit different...!": Interactional dynamics in children with cochlear implants**

**Chiara Mazzocconi**

Aix-Marseille University, Marseille, France

**Céline Hidalgo**

La Timone Children's Hospital, Marseille, France

**Charlie Hallart**

Aix-Marseille University, Marseille, France

**Leonardo Lancia**

Aix-Marseille University, Aix-en-Provence, France

**Roxane Bertrand**

Aix-Marseille Université, Aix-en-Provence, France

**Stéphane Roman**

La Timone Children's Hospital, Marseille, France

**Daniele Schön**

Aix-Marseille University, Marseille, France

## **Abstract**

Even when early implanted, children with cochlear implants show heterogeneous language skills and often struggle with pragmatic communication aspects. Research aimed at elucidating specific weaknesses at the interactional level has yielded inconsistent findings. We analyse dyadic interactions involving nine hearing-impaired children and fourteen normal-hearing children engaging with an adult during a referential (treasure-hunting) task, periodically alternated with role-reversal sub-tasks (e.g., child-led referential-tasks, child-storytelling). Our investigation employs a multi-level analysis approach, encompassing acoustic features (F0, intensity, speech duration, speech rate), turn-taking dynamics (duration, gaps, overlaps), laughter responsiveness and pragmatic functions, convergence of these features, dialogue acts, contingency, and task success. We compare interactional patterns across groups and conditions. The adoption of a multi-level characterization is grounded in the hypothesis that alignment at "lower levels" serves a functional role and concurrently offers insights into alignment at a conceptual level, thereby facilitating mutual understanding and conversational success, giving insights on underpinning neuro-psychological processes.