

# Processing of prosodically marked focus in a cochlear implant simulation by non-native listeners

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## Introduction

- Prosodic cues ( $f_0$ , int, dur) can signal focus → nuclear accent
- Focus position relates to the QUD (question-under-discussion)
- Non-native listeners process prosodic patterns less accurately
- Native cochlear implant (CI) users have difficulty processing prosody

## Research question

How does a CI simulation influence the interpretation of prosodically marked focus in a non-native language?

## Method

- 24 sentences x 4 focus types
- 4 native English speakers (♂/♀)
- 8 channels, 160 Hz cut-off (noise)
- Native Dutch learners of English (12-14 y/o adolescents & 18+ y/o adults)
- Online experiment
- 11-4AFC task
- Logistic mixed-effects model



## Results

- Lower accuracy for CI condition (\*\*\*)
- Higher accuracy for adults (\*\*\*)
- Lower accuracy for OF and BF (\*\*\*) (note: similar accuracy for OF ↔ BF [n.s.])
- Nuclear accent position is the same for OF and BF → more confusion?

## Example

"Which question did the speaker answer?"

