Corrective re-synthesis of children’s deviant speech

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BACKGROUND

• Recognizing one’s own speech errors is a key challenge for children with deviant speech, e.g. [1].
• Suggestion 1: Strengthen these skills in the child through the use of recordings [2].
• Suggestion 2: Use corrective re-synthesis to attract the child’s attention to the critical distinction between his/her current deviant production and a tailor-made correct speech target.

QUESTION

“Is the re-synthesis technique good enough?”
Do children, with and without PI, detect synthetic modification in an ecologically valid setting?

METHOD

Participants

20 children with TD
4-6 ys
Age-adequate TROG-2

11 children with PI
4-6 ys
Age-adequate TROG-2
/k, g, n/ -> [t, d, n]

“Phonetic transplant”

/pro:/ [ko:]
/pro:/ [to:]

Procedure

2*8 words; /tv/ or /kv/; 6*toCorrect, 6*toIncorrect, 4*orig

take -> [tcrk]  take -> [kcrk]

Do the children differentiate between modified and original recordings?

• No, not reliably.
• No difference between TD and PI.

What type of stimuli do they misclassify?

• Do not detect modification into something correct.
• PI: judge their own deviant productions as if they had been produced by the Monkey.

CONCLUSIONS

Sub-phonemic modification is difficult to detect.
Synthesis quality is satisfactory; the technique ripe for implementation in clinical intervention.

REFERENCES