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PROCESSING OF DISFLUENCIES AS A FUNCTION OF ERROR TYPE AND AGE

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ABSTRACT: The goal of the present experiment was to describe the correction process of speech errors. Various types of disfluency were tested with 9-year-old children, young adults, and elders. The results show that the efficiency and the time span of the corrective process depends upon the type of disfluency, the operational level the production error involves, and the listener's age.

INTRODUCTION HYPOTHESIS

There are disfluencies to which the listeners seem to be more sensitive than to others.

There is little information, however, about the way and timing of corrective operations and about the interrelation-ships between the nature of disfluency and its correction success.

Our **hypothesis** is that the success and tempo of the correction process heavily depends on the nature of disfluency and on the listener's age.

SUBJECTS, METHOD, MATERIAL

9 types of **disfluency**, each represented by 5 items:

grammatical error, lexical contamination: *söci* from *sör* 'beer' and *foci* 'football',

semantic contamination: *abban szereti jól magát* from *abban szeret lenni* 'he likes to be that way' and *abban érzi jól magát* 'he feels well that way',

false word activation, perseveration, anticipation, metathesis, articulation error, error combinations.

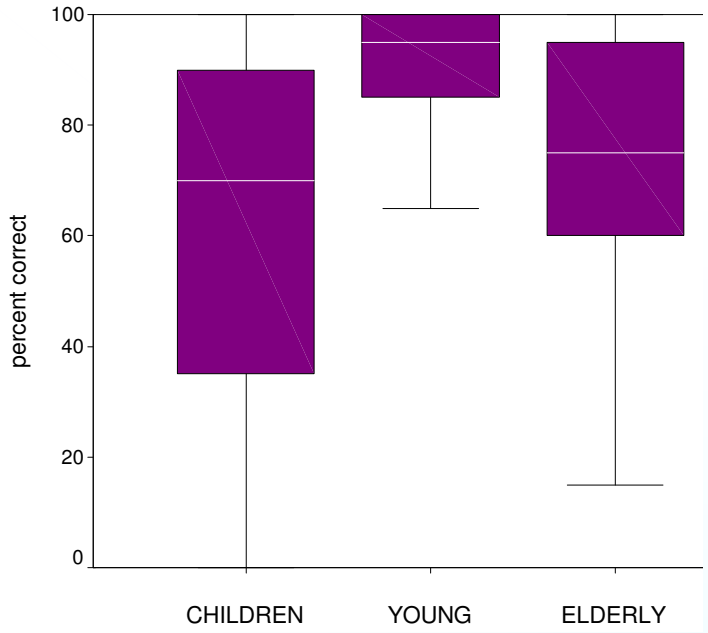
60 subjects: twenty 9-year-olds, twenty elders (66–76 years), twenty young people (22–30 years).

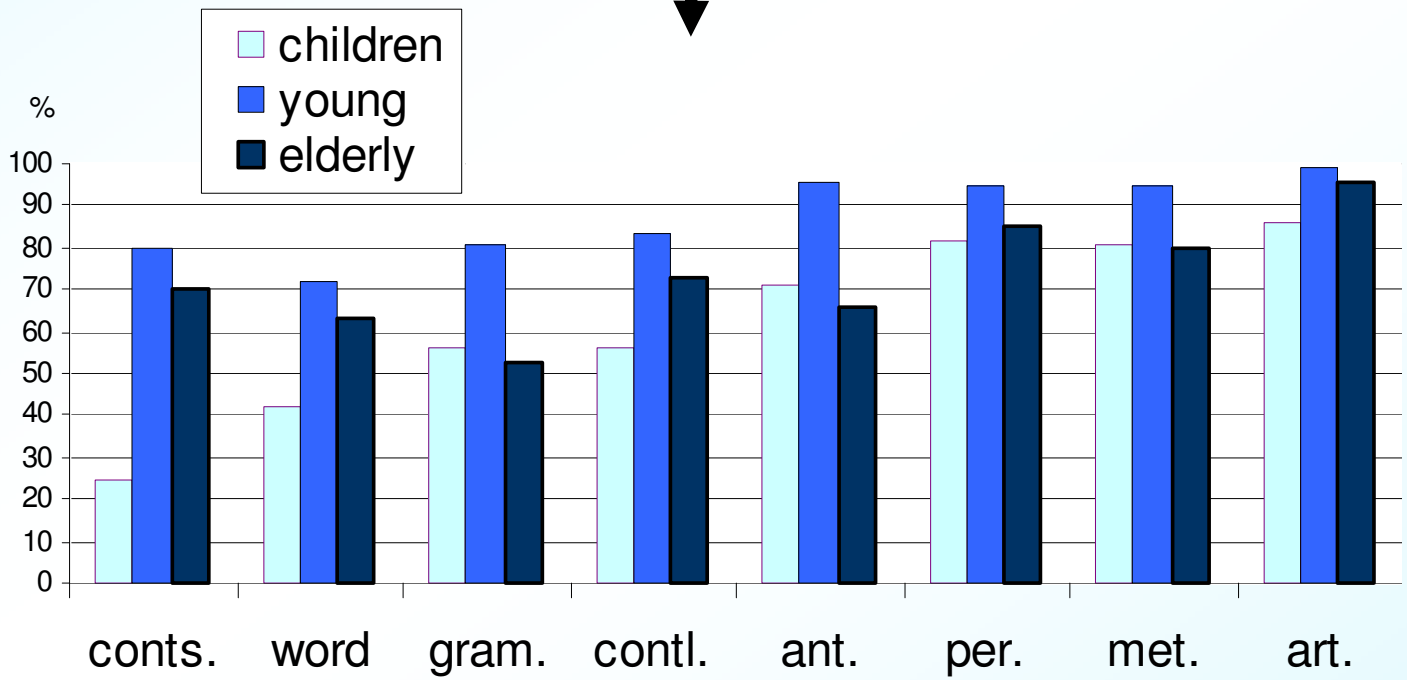
Task: to provide a corrected version of the utterance immediately after hearing.

Analysis: Reaction Time (RT) values and Response Accuracy

ANALYSIS OF CORRECT RESPONSES

Correct perception of utterances according to disfluency types.

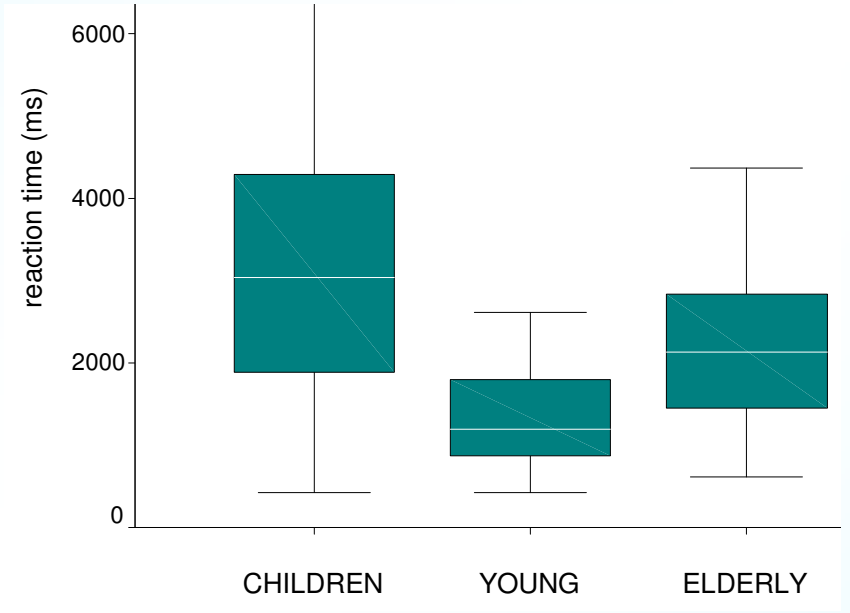


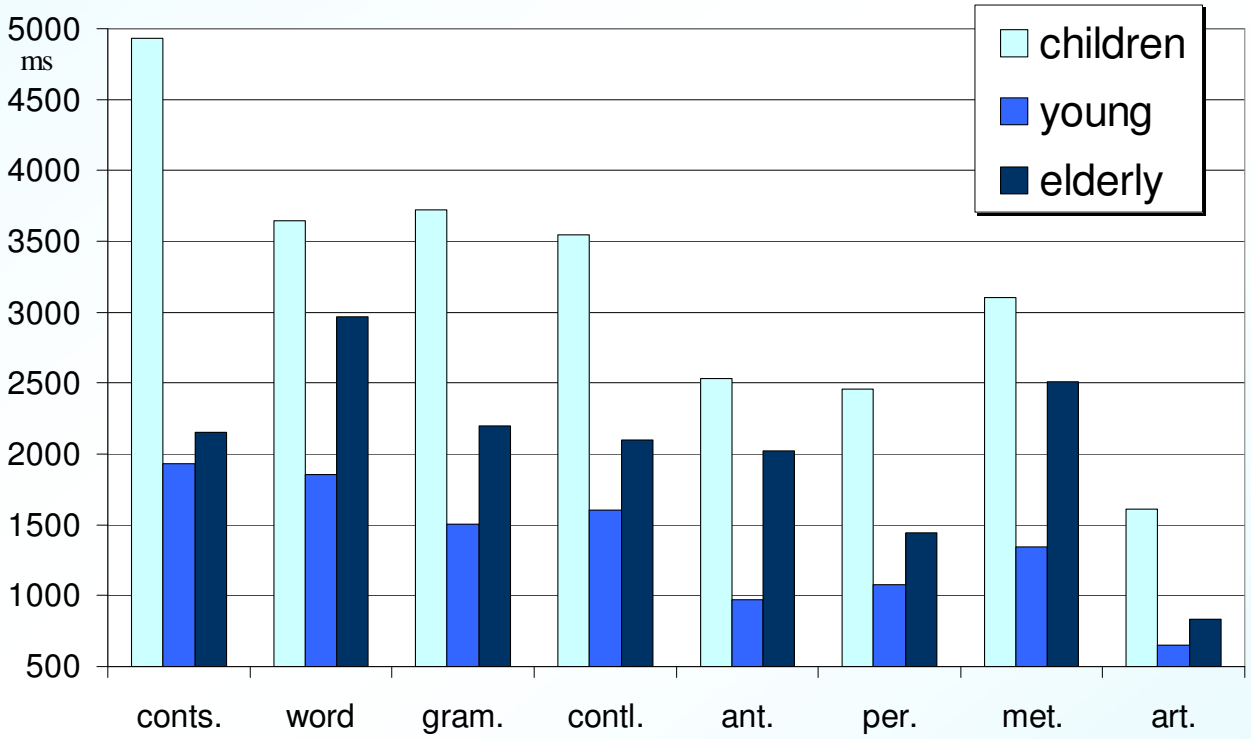


Correct percep-tion of the utter-ances.

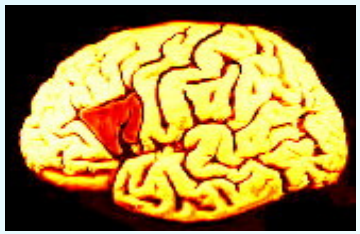
ANALYSIS OF REACTION TIME

Means and ranges of reaction time values in the correction process.





Reaction time values according to type of disfluency.



CONCEPTS
conceptual failures

FORMULATOR
grammatical errors

PHONOLOGY
phonological errors

ARTICULATION PLANNING
articulation errors

YOUNG

2132.2 ms

72.7%

1947.3 ms

71.2%

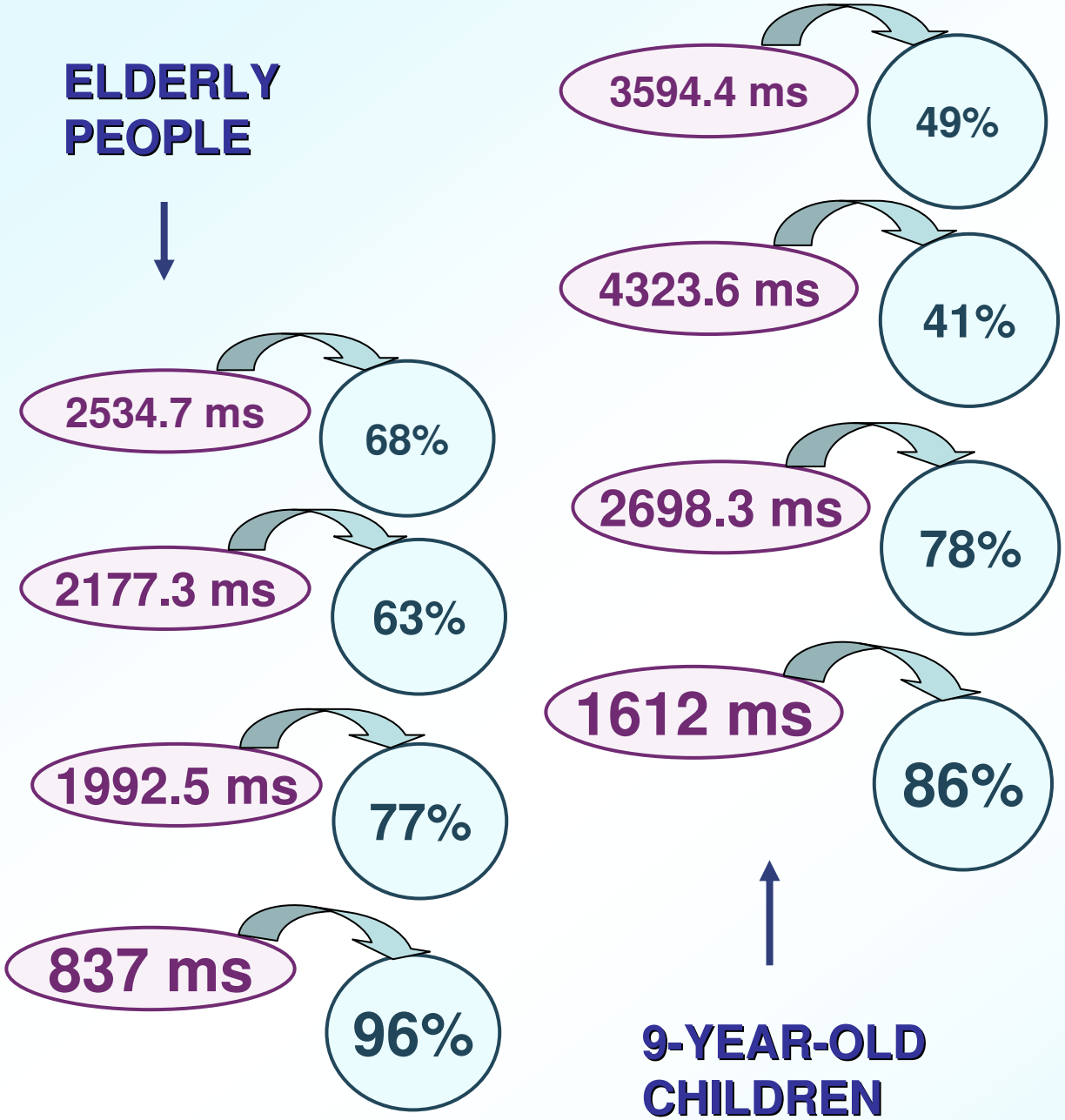
1379.4 ms

86.1%

744.1 ms

97.5%

correction time and success



CONCLUSIONS

- Late information can be processed earlier in time particularly by the young subjects.
- Speech processing and the necessary corrections can occur in parallel.
- The data provide convincing evidence that the corrections and their timing depend:

on the **type** of disfluency,

on the **place** where it occurs in the speech planning mechanism,

on the listener's **age**.