

Lexical retrieval in healthy ageing: an exploration of context effects.



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Introduction

- Advancing age is associated with increased lexical retrieval difficulties (e.g., slower response times in picture naming (1)).
- Picture-naming tasks used to study age effects in lexical retrieval do not capture the role of contextual and semantic influences on word retrieval.
- Previous research (1) has highlighted potential differences in age effects between word retrieval in connected speech tasks and in isolation, suggesting that older adults might experience fewer difficulties in connected speech.

Main aims

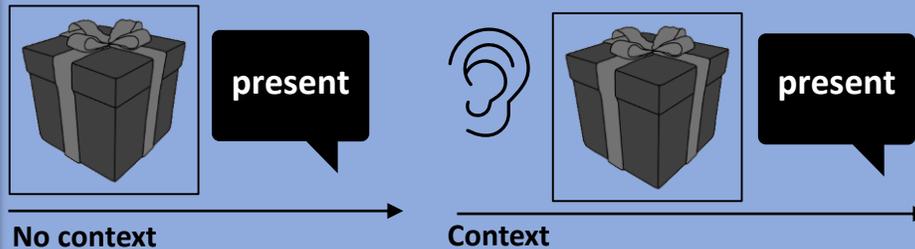
1. To examine if and how age effects differ between word production in isolation versus context
2. To examine if and how word production in younger and older adults is influenced by different types of contexts:
 - Matching context (predicting the target response)
 - Mismatching context (predicting another target response)
 - Neutral contexts (not predicting a specific target response)

References

1) Kave, G., & Goral, M. (2017). Do age-related word retrieval difficulties appear (or disappear) in connected speech? *Aging, Neuropsychology, and Cognition*, 24(5), 508-527. <https://doi.org/10.1080/13825585.2016.1226249>

Methods

PICTURE NAMING



No context

Context

Participants: 48 younger (18-35 years) 48 older (65-80 years) healthy adults.

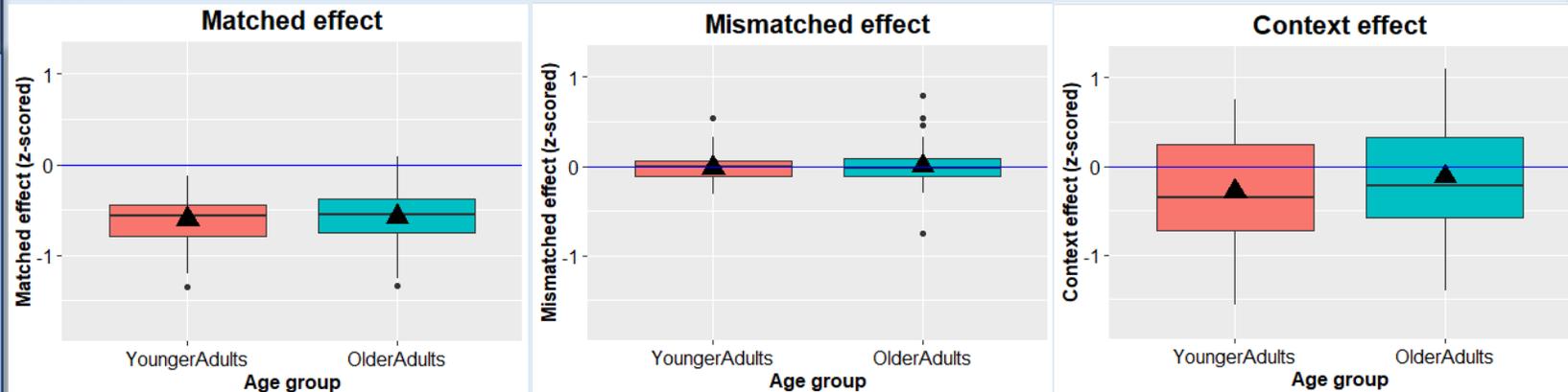
Context Questions

Matched: “What did she wrap before Christmas?” (predicts upcoming target).

Mismatched: “What did the football player break?” (predicts a different word; e.g., ‘leg’)

Neutral: “What did grandfather perceive?” (not predictive).

Results



- Matched questions reduced RTs (mean difference between matched and neutral trials= -132.39ms, $p < .001$).
- Degree of facilitation not different between younger and older adults ($F(1,94) = .23, p = .63$).
- Mismatched questions did not affect RTs (mean difference between mismatched and neutral trials= -1.62ms, $p = .729$).
- Not different between younger and older adults ($F(1,94) = .12, p = .734$).
- Neutral questions reduced RTs (mean difference between naming without context and neutral trials= -44.25ms, $p = .001$).
- Degree of facilitation not different between younger and older adults ($F(1,94) = 1.95, p = .165$).

Discussion

Sentence contexts, particularly ones which predict upcoming words facilitate lexical retrieval in healthy younger and older adults.

Mismatched sentence contexts were not associated with a production cost.

Further exploration is needed to gauge how different sentence contexts affect word production in everyday communicative contexts.