

# THE DYNAMICS OF MULTIWORD SEQUENCE EXTRACTION

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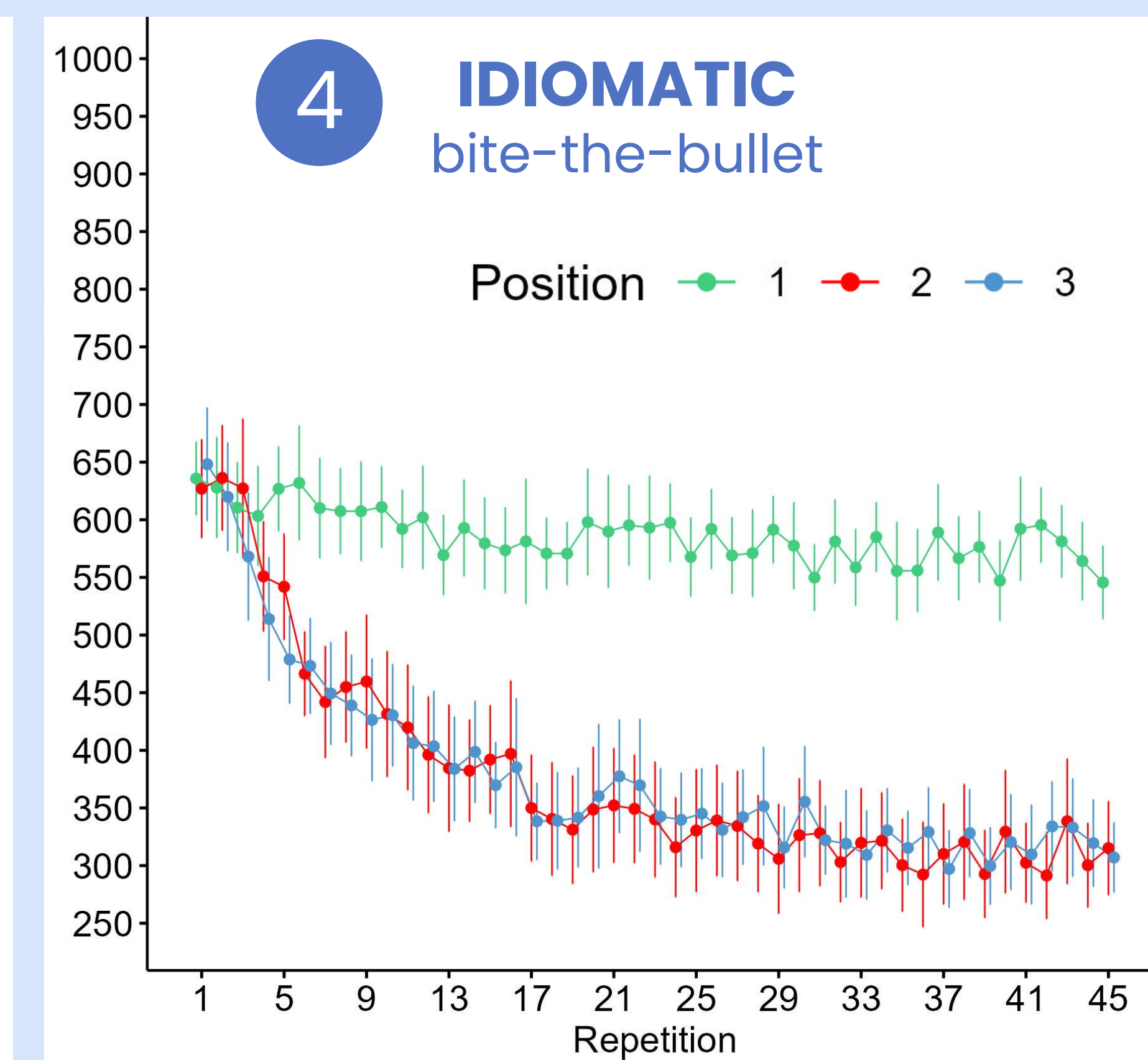
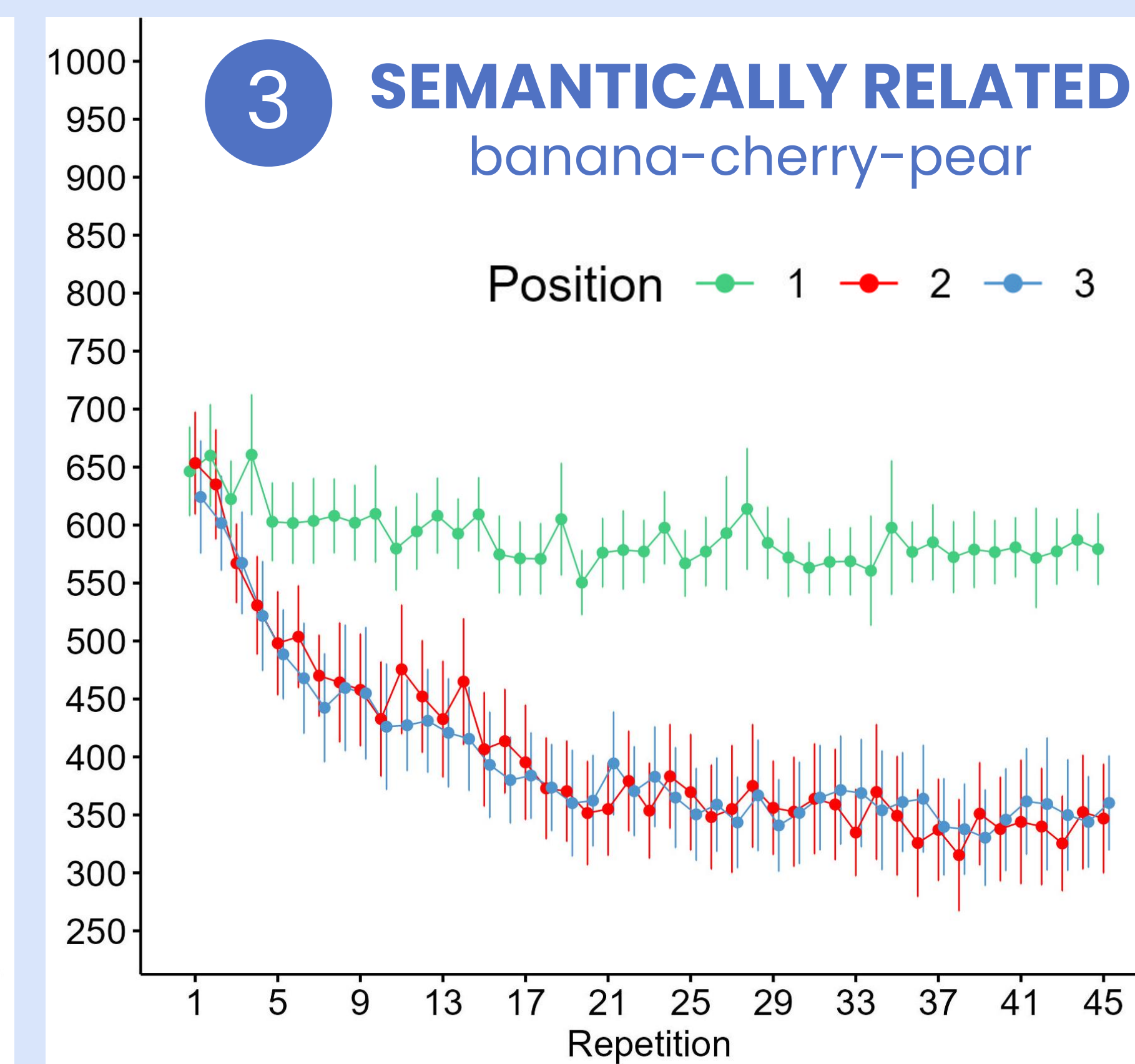
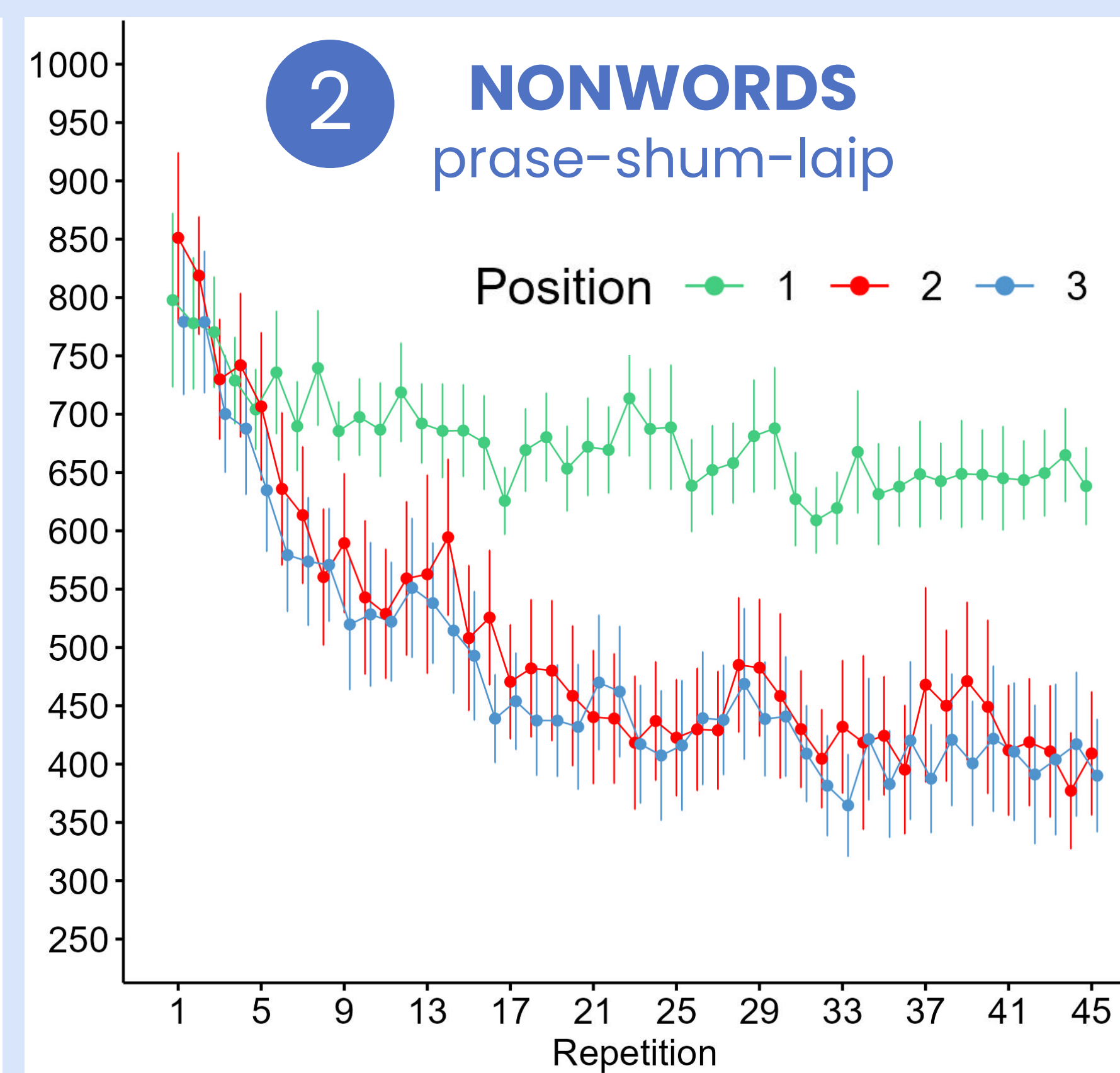
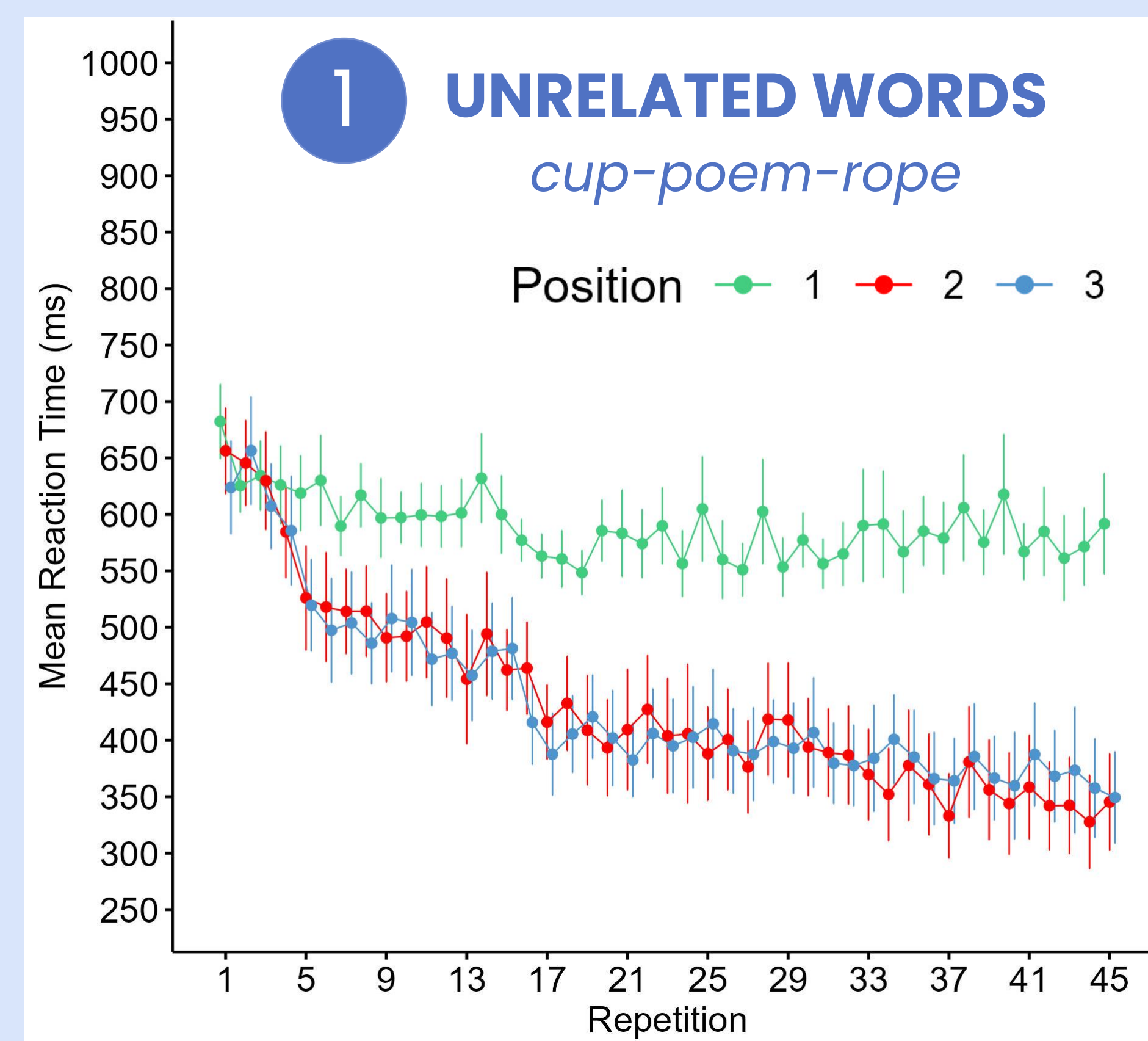
## INTRODUCTION

- Traditionally, words and rules are considered as the basic building blocks of language (Pinker, 1991)
- Recent work, however, has demonstrated that **multiword sequences** are also building blocks of language (Christiansen & Arnon, 2017; Havron & Arnon, 2021)
- Here we conducted a series of experiments using a lexical decision task to address the following main question:

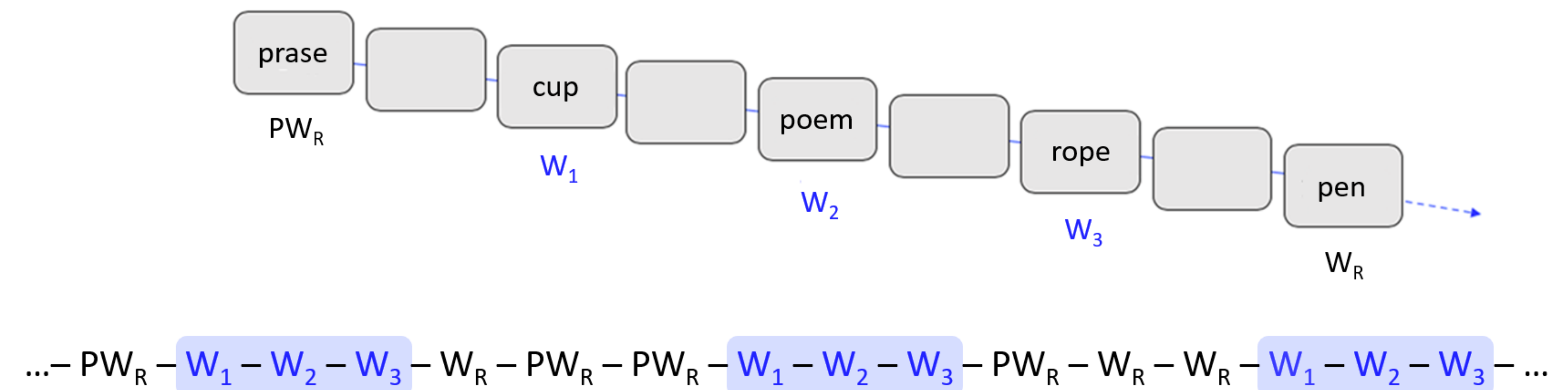
**What are the dynamics of multiword sequence learning ?**

## RESULTS

- We observed a **learning effect** across the task
- We found **faster reaction times** for predictable words within the repeated triplet
- No evidence of an advantage for the third position over the second



## LEXICAL DECISION TASK



- A repeated **triplet of words** = cup – poem – rope =  $W_1-W_2-W_3$
- 3 to 6 filler** words or pseudowords between two repetitions of the triplet
- 3 blocks of 120 trials (**15 triplet repetitions** per block)
- 60 words and 60 pseudowords per block
- 4 experiments** : 1) unrelated words; 2) nonwords; 3) semantically related; 4) idiomatic
- 42 French native-speaker participants per experiment

## CONCLUSIONS about the dynamics of multiword sequence extraction

- Participants learned repeated sequences and RTs decreased on predictable positions
- Learning started after 5 repetitions of the sequence
- No improvement after 20 repetitions (with a spacing of 3-6 items)

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