



The good-enough listener: A visual world paradigm reveals the interaction between prediction and bottom-up input

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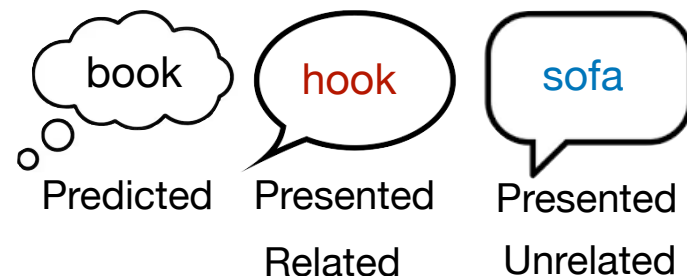
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Introduction

Prediction is prevalent in real-time language comprehension [1,2]

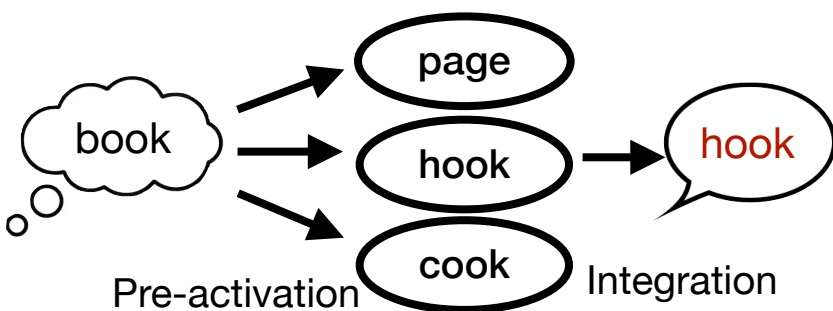
But predictions can go wrong...

The student went to the library to borrow a ...

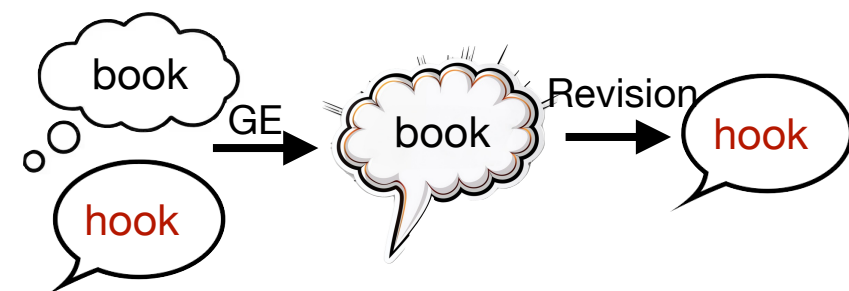


How do prior predictions interact with upcoming input?

Hypothesis 1: Facilitation/Spread activation [3,4]



Hypothesis 2: Interference / good-enough [5,6]



Experiment Design

Visual world paradigm

Participants (n = 44) listened to Chinese sentences while viewing a display of six Chinese words

阅览室的桌子上摆着一些.....

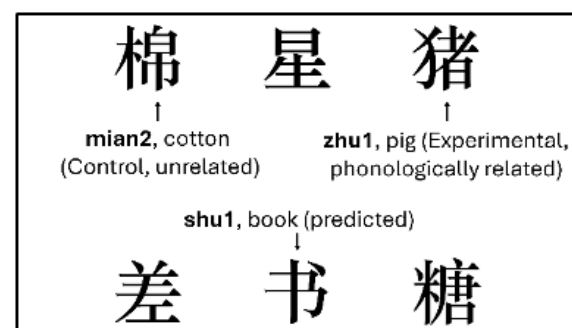


On the reading room's table are placed some.....

Non-presented predicted word: book [书 shu1]

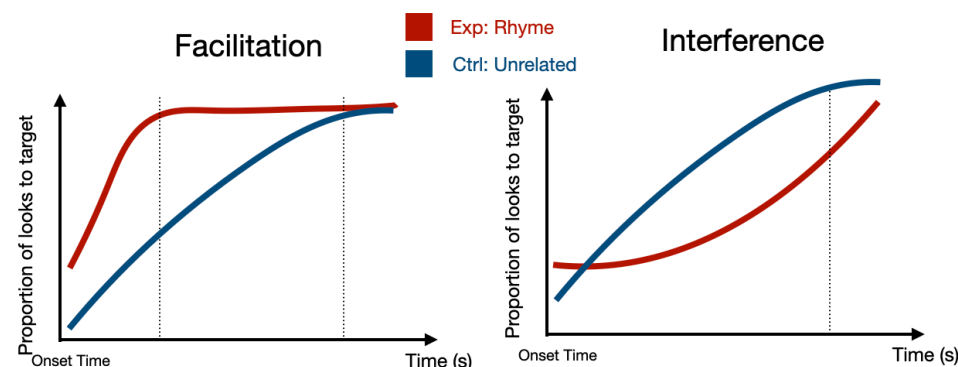
Experiment condition: pig [猪 zhu1] (phonologically related)

Control condition: cotton [棉 mian2] (unrelated)

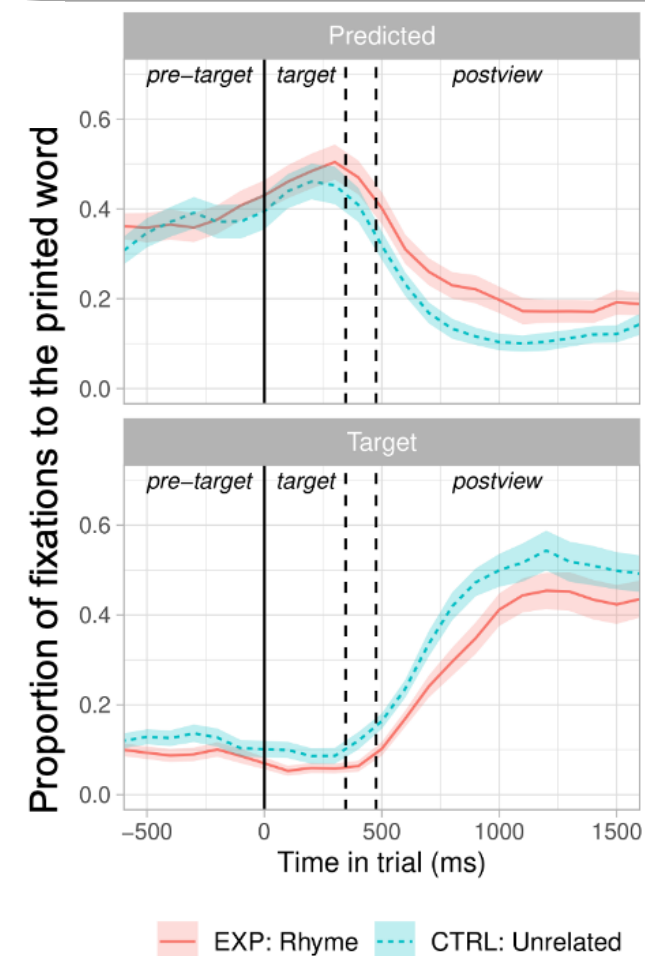


Visual display

Predictions



Result



A cluster-based permutation test revealed a significant effect in the 300-1500 ms

Support interference hypothesis

References [1] Kamide, Y. (2008). Language and Linguistics Compass. [2] Staub, A. (2015). Language and Linguistics Compass. [3] Federmeier, K. D., & Kutas, M. (1999). Journal of Memory and Language. [4] Kukona, A. (2020). Journal of Experimental Psychology: Learning, Memory, and Cognition. [5] Norris, D. (2006). Psychological review. [6] Ferreira, F., & Patson, N. D. (2007). Language and linguistics compass.