

THE IMPACT OF SYNTACTIC KNOWLEDGE ON WORKING MEMORY FOR SERIAL ORDER

QUERELLA Pauline ^a, MAJERUS Steve ^{a, b}

^a Psychology and Neuroscience of Cognition RU, University of Liège, Belgium

^b National Fund for Scientific Research, Belgium

 pquerella@uliege.be

INTRODUCTION

While a vast number of studies have shown that the retention of item information in verbal working memory (WM) is strongly determined by long-term (LT) language knowledge, the interaction between the retention of serial order information in WM and verbal LT memory is much more controversial :

Serial order maintenance supported by the direct activation of LTM

vs

Specific serial order mechanisms independent from the linguistic system (temporal, contextual, spatial codes in a specific representational system)



This study will explore the impact of syntactic LT knowledge on serial order retention abilities in WM

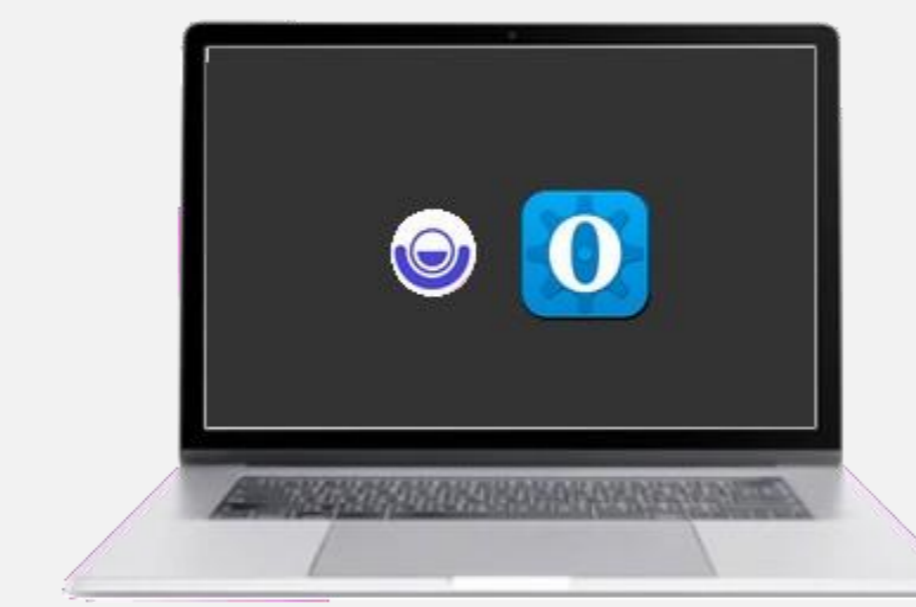
HYPOTHESES

If serial order recall in WM depends on LT knowledge:

➤ Serial order recall errors should be larger for WM lists including adjective-noun pairs with **infrequent/illegal positional arrangement** as well as for **incorrect inflection**.

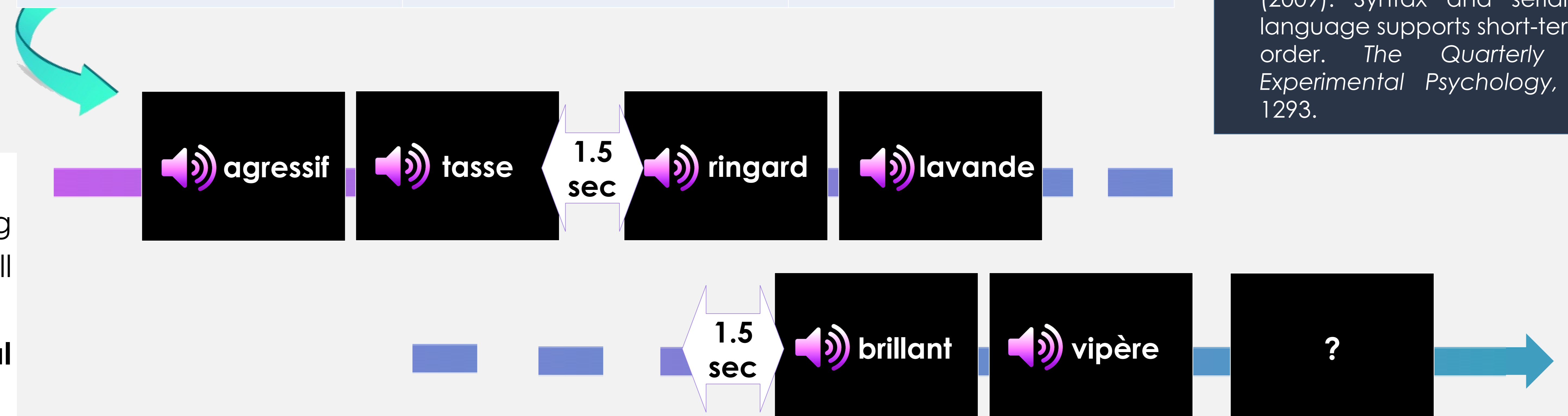
➤ Serial order migration errors should occur involving **positional regularization of the infrequent/illegal adjective-noun pairing**.

MATERIALS & METHODS



Immediate serial recall task: 48 sets of 6 word-lists containing each 3 adjective-noun/noun-adjective pairs.

	Group A	Group B
Repeated measures (12x4 conditions)	Correct Inflection	Incorrect Inflection
Canonical order + adjective before noun	(e.g. dernier – thorax)	(e.g. dernière – thorax)
Canonical order + adjective after noun	(e.g. batterie – blanche)	(e.g. batterie – blanc)
Non-canonical order + adjective before noun	(e.g. creuse – chorale)	(e.g. creux – chorale)
Non-canonical order + adjective after noun	(e.g. titane – grand)	(e.g. titane – grande)



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