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# Tip-of-the-tongue in aging: influence of vocabulary, working memory and processing speed.

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### **Abstract**

### **BACKGROUND AND AIMS:**

It is well known that tip-of-the-tongue (ToT) states, which are due to failure in the phonological activation of words, especially proper names, are more common in older than in younger adults. Nevertheless, the relationship between increased numbers of ToTs and cognitive aging remains unclear. The aim of the present study was to clarify this relationship by examining ToT production and the performance of cognitive tasks such as working memory and processing speed tests.

# **METHODOLOGY:**

In order to study the relationships between these constructs, the performance of 133 participants in different language, working memory and processing speed tasks was analysed by use of LISREL software.

# **RESULTS:**

The best fit model included direct and indirect effects of age, mediated by cognitive variables, on lexical production variables. The model incorporated the indirect effects of age on vocabulary through working memory and also the indirect effect of age on ToT through processing speed.

## **CONCLUSION:**

The results indicate negative modulation of slowed processing in the age-related increase of ToT and positive modulation of working memory in vocabulary, as well as an absence of any relation between vocabulary and ToT. Assuming that ToT events involve controlled processes, the relationship between slowed processing and ToT in aging could be interpreted as reflecting controlled compensatory mechanisms.



