

German Word Formation and the Organization of the Mental Lexicon



Middle European
interdisciplinary
master's programme in
Cognitive Science

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Background

- Humans' unique language abilities depend on the **mental lexicon (ML)**

- Studies conducted for English^{[1],[2]} suggest that the ML does not only contain entire words, but also **suffixes and their combinations**
- Native and advanced non-native speakers of English are able to **identify** existing and non-existing **suffix combinations without bases**

Glossary

Mental lexicon: a dictionary-like collection of words, their building blocks, and the rules for combining all these

Suffix combinations: pieces of word structure consisting of two or more suffixes, e.g. *-lessness* (*-less* + *-ness*) as in *restlessness*

Are suffix combinations without bases also represented in the mental lexicon of native and advanced non-native speakers of German?

Method:

A psycholinguistic experiment

- Participants: 31 native (mean age: 27.7 y, 22 females) and 29 advanced non-native (mean age: 28.1 y, 18 females) speakers of German
- Online questionnaire (GoogleForms)
- 30 existing suffix combinations
 - 15 productive (i.e. deriving more than 10 words), e.g. *-erschaft*
 - 15 unproductive (i.e. deriving less than 10 words), e.g. *-haftig*
- 30 non-existing (manipulated) combinations
- Independent variables: groups of speakers (native/non-native) and types of combinations

Discussion

We confirm research for other languages: **suffix combinations are listed in the ML** and **productive suffix combinations** are more **easily recognizable** than unproductive ones.

! The significant difference between German native and non-native speakers is at odds with the results for English^[2]. This could be due to somehow less standardized language levels for German leading to an **inadequate self-assessment of the non-native participants** as "advanced".

Results

Obtained using independent t- and Mann-Whitney-U- tests, calculated in R.

Native speakers identified **existing combinations** more accurately than non-existing ones ($p=.05$); and **productive combinations more accurately than unproductive ones** ($p=.02$). For **non-native** speakers, there was no **significant difference** between existing and non-existing combinations, but between **productive and unproductive ones** ($p=.01$).

Average accuracy: **native** speakers (77%) and **non-native** speakers (71%) **differed significantly** ($p=.01$), see fig. 1.

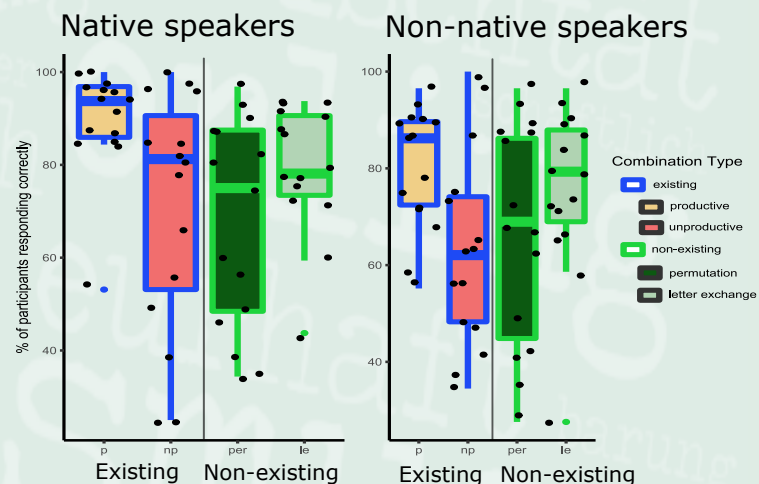


Figure 1: Percentage of participants responding correctly per stimulus type

References

[1] S. Manova, "Ordering restrictions between affixes," in *The Wiley Blackwell Companion to Morphology*, Wiley Blackwell, 2021.

[2] S. Manova and G. Knell, "Two-suffix combinations in native and non-native English," in *All Things Morphology: Its Independence and Its Interfaces*, Moradi et al., Eds. Benjamins, pp. 305–323, 2021.

Acknowledgements

We want to thank all participants for responding to the questionnaire as well as Laura Grestenberger and Katharina Korecky-Kröll for supporting us with their expertise.