Advancing Analogical Theory in Morphology (AdvAnTheMorph)

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How do speakers decide which affixes to use to form new words and forms when there are several possibilities, and how do they realise them phonetically? Production studies show that in such situations – often called 'affix rivalry' in word-formation and 'overabundance' in inflection – analogy based on morphological similarity patterns in the Mental Lexicon ('paradigmatic relations') plays a crucial role. For example, if speakers have to choose an affix for a (new) word and several synonymous affixes are available, they tend to select the affix with the highest support in the Mental Lexicon (e.g. Gardani et al. 2019, Huyghe & Varvara 2023). In parallel, there is a correlation in speech production between the strength of paradigmatic support and the phonetic realisation of complex words (Kuperman et al. 2007, Zee et al. 2021). Both observations are often cited as important evidence for usage-based linguistic theories that regard analogical mechanisms as a central building block of their grammatical architectures (e.g. Bybee 2001, Booij 2010, Baayen et al. 2019). The exact nature of analogical effects, however, is still unclear. For example, the selection of affixes and their phonetic realisation are often not considered together in the literature; the same is true for derivational and inflectional processes. The consequence is that overall it remains unclear whether the seemingly parallel effects observed so far are based on the same processing mechanisms in language production. We also understand very little to date to what extent there are speaker-specific differences in analogical effects, and to what extent the use of words in context, i.e. their contextual probability, bears on analogical effects. However, both are important predictions made by the basic architecture of usage-based theories, given that they assume linguistic generalisation and production to be emergent from usage by speakers.

This project investigates affix selection and the phonetic realisation of complex words for two exemplary phenomena: competing adjectival derivational suffixes in English and competing plural suffixes in Dutch. The aim is to find out how differences in the vocabulary knowledge of speakers as well as in the contextual environment and the lexical frequency of analogical words modulate analogical effects in the Mental Lexicon. The data to be used come from both elicitation experiments and corpora of spontaneous speech. Computational modeling is used as a central research instrument. The existing algorithm (AML, Skousen et al. 2013), which will be developed further and extended to accommodate differences in lexical activation strength. On the basis of its findings, the project will contribute to the refinement of analogy-based theories of morphology.

References

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