

The role of morpho-phonological processes in the recognition of complex words in German: Evidence from behavioural and electrophysiological research

Although the issue of morphological decomposition has become less controversial in the experimental literature, the precise mechanism of decomposition of words with more than two morphemes is not as clear yet. Where conversion or zero-derivation is concerned (*bridge_N* > *bridge_V* > *bridging_N*), no overt morpheme is visible in step one. Nevertheless, earlier studies have demonstrated that the recognition of complex words is affected by the degree of derivational depth (Meinzer et al., 2009; Wheeldon et al., 2019). Crucially, the theoretical notion of complexity accepted in the linguistics literature was validated in empirical research on word processing.

The general question we have asked is the following: Would the effects of depth on the processing of zero-derived words found in previous research be generalizable to the processing of words formed by means of overt affixation? We conducted a series of experiments on German and compared less complex adjectives derived in one step from their bases (*unklar_A* “unclear” < *klar_A* “clear” or *unsicher_A* “unsafe” < *sicher_A* “safe”) with adjectives of higher morphological complexity derived in two steps (*unfreundlich_A* “unfriendly” < *freundlich_A* “friendly” < *Freund_N* “friend”). In addition to derivational depth, we also examined whether the presence and absence of phonological effects on stems (e.g., umlaut) caused by specific affixes influenced word recognition. Furthermore, we aimed to disentangle the effects of depth from the effects of word length (the number of syllables).

In this talk, I will present the data from behavioral and EEG experiments where we used a variety of experimental paradigms such as delayed (long-lagged) priming, cross-modal priming, and pure lexical decision. Our results are multifaceted, the general conclusion being that the recognition of words derived by means of overt affixes is influenced by a complex interaction of derivational depth with other word properties such as transparency of their morphological structure, phonological complexity, and lexical frequency.