Morphological processing across the board:

Evidence from neuroimaging and language disorders

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Research on the processing of complex words has revealed that the human processor accesses morphological information immediately when confronted with a complex lexical item by decomposing it into its constituents (Rastle & Davis, 2008; Fruchter et al., 2013). In order to avoid the erroneous (in some cases) interpretation of initial decomposition (e.g. corn+er), validation processes take place during the last stage of lexical access where speakers engage their semantic knowledge in order to resolve incompatible information from stem and suffix. This has been described as *recombination* (e.g. Fruchter & Marantz, 2015), and it refers to the stage where speakers try to make sense of the decomposed word. Subsequent psycholinguistic research showed that stem + affix combinations are evaluated at semantic but also syntactic grounds.

Withing this frame, I will discuss data regarding morphological processing of derived words in real time. I will address the following questions: What kind of information is necessary in order to recognize a derived word? What is the timeframe of processing each type of information? What brain areas are involved during their processing? In what way is morphological processing affected when there is brain damage? Specifically, I will discuss two studies on the processing of deverbal formations in Greek and English by using MEG (Magnetoencephalography) as well as data from English-speaking patients with PPA (Primary Progressive Aphasia) during processing of morphologically complex pseudowords.