

TEMPLATE OR SALIENCY?
PROCESSING OF SUPRASEGMENTAL CUES BY THE HUMAN BRAIN

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The contribution of brain networks to the processing of suprasegmental cues has been the object of a great deal of behavioral studies in recent years. Despite the increased interest in this issue, the neural substrates for processing these complex acoustic patterns assigned to different linguistic information remain unresolved. Several competing hypotheses concerning brain processes involved are used in parallel. Although our knowledge is based largely on data from production, perception and comprehension studies, some recent brain studies have started to shed light on the brain processes contributing to our understanding on the suprasegmental cues we rely on in spoken utterances. The recent studies applying brain measures in order to decompose the most important factors of word and discourse level processing seem to confirm that the cortical processing of suprasegmental cues relies on a higher level interplay of perception and cognitive processes. Moreover, the recent imaging studies suggest that the processing of different types of prosodies can be linked to partly different brain areas. Although many brain imaging studies identified distinct brain regions subserving particular aspects of these processes it is not fully clear what are the reliable neural correlates of suprasegmental processing. Moreover, a very few brain studies have addressed the development and emergence of prosodic cues and templates, so that early maturation of processing these cues as prewired mechanism of bootstrapping during language development is still under debate.

The presentation will give an overview of the most recent research data on event-related brain potential (ERP) studies of the authors' and other research groups searching for a reliable tool that helps decomposing rule and regularity based processes of complex acoustic cues contributing to word stress and linguistic prosody.