THE MUSIC OF LANGUAGE

WORD STRESS AND PROSODY PROCESSED BY THE HUMAN BRAIN

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The contribution of the brain's networks to the processing of suprasegmental cues, stress pattern and speech prosody, has been the object of a great deal of study in recent years. Despite the increased interest in this issue, the neural substrates for processing these complex acoustic patterns remain unresolved. Several competing hypotheses concerning brain processes involved are used in parallel. Although our knowledge is based largely on data from perception or 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 word stress relies on rule application and pattern recognition as well. Moreover, the recent imaging studies suggest that the processing of affective and linguistic prosody can be linked to partly different brain areas. Although many brain imaging studies identified distinct brain regions subserving particular aspects of word stress and prosody it is not fully clear what changes these cerebral substrates undergo during development. The presentation will give an overview of the most recent research data on the event-related brain potential (ERP) studies of the author and her research group as well as on the very recent neuroimaging data, available mainly for prosody.