

Bonn Lecture Series in Neuroscience



Neural bases of speech prosody

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Life & Brain, Seminar Room, Ground Floor

Language is more than just words. Speakers often reveal their (true) emotions and intentions by the way things are said—by speech prosody. How the brain extracts meaning from voice tone remains, however, poorly understood. Here, I will integrate previous neurofunctional accounts of language with novel evidence from neuroimaging, brain stimulation and lesion studies to reveal the complex neurocognitive architecture of prosody perception in speech. I will show (i) dual streams for prosody in the right hemisphere, (ii) their transcallosal interaction with the left hemisphere, and (iii) the relevance of social cognition for the extraction of meaning from prosody. Altogether, it appears that prosody perception requires the interaction of several complementary mechanisms to grant successful interpersonal communication.

Selected Publications

Hellbernd N, **Sammler D.** (2016) Prosody convey's speaker's intentions: Acoustic cues for speech act perception. *J Mem Lang*, 88: 70-86.

Sammler D, Grosbras MH, Anwender A, Bestelmeyer PEG, Belin P. (2015) Dorsal and ventral pathways for prosody. *Curr Biol*, 25(23): 3079-3085.

Sammler D, Koelsch S, Ball T, Brandt A, Grigutsch M, Huppertz HJ et al. (2013) Co-localizing linguistic and musical syntax with intracranial EEG. *NeuroImage*, 64: 134-146.

Sammler D, Kotz SA, Eckstein K, Ott DV, Friederici AD. (2010) Prosody meets syntax: the role of the corpus callosum. *Brain*, 133(9): 2643-2655.