From Acoustics to Meaning: Perception of Prominence and Focus Identification
IRCA's guest lecture given by Prof. Hansjörg Moxdorff 9/6/2016, 13:00 – 14:00, M401

Prof. Hansjörg Moxdorff worked as a lecturer of Digital Signal Processing at Beuth University Berlin and continued as a DFG (Deutsche Forschungsgemeinschaft) post-doc fellow. Since 2001 he was appointed professor of Digital Audio and Video Processing at the Faculty of Computer Science and Media and since then he has expanded his teaching towards Speech Communication, Speech Signal Processing and Perception.
His main research interests are the modeling of prosodic features of speech, especially in cross-language comparison, and Text-to-Speech systems.

ABSTRACT:
The information structure of an utterance is reflected by the relative saliency of its lexical constituents. At the acoustic level we observe that accented syllables serve as anchoring points of this structure. They are emphasized or toned down by acoustic means. The perceptual correlate of this process is the so-called prominence. Various segmental and supra-segmental factors have been shown to affect prominence. A word-based perception study conducted by the presenter and co-workers suggested that the sonority of a syllable is one of these factors. In a subsequent imitation experiment it was shown that speakers compensate for the lack of sonority due to voiceless consonants by boosting the underlying $F0$ peaks. A more recent experiment aimed to replicate syllabic prominence ratings on sentences with varying sentence mode and focus. In conjunction with these ratings we asked participants to identify the focus condition. Results from these studies have important implications for prosody-enhanced ASR systems, for instance.

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