

The involvement of respiration in local and global aspects of speech

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Most studies consider breathing as a slow (global) biological rhythm, which may adapt flexibly to different situational demands. In the first part of my talk, I will discuss under which situational demands (locomotion alone, speech alone, speech and locomotion) respiration changes and what consequences this may have on general speech parameters (such as speech duration, pause duration and speech rate). Furthermore, I will present evidence for an adaptation of respiration in perception, in particular to auditory and visual stimuli varying in their complexity.

In the second part of the talk, I will discuss local aspects of breathing in speech production, i.e. I will introduce the controversial debate about the involvement of breathing in the production of prominent syllables.

Finally, I will present evidence that specific configurations of the upper vocal tract affect respiration even at the level of the segment. Effects are typical for voiceless fricatives and aspirated stops, but they are not found in sonorants.

This overview aims to show that respiration may play a crucial role on longer and shorter time scales.