



# Cognitive Science Colloquium

Winter term 2025/2026

Tuesday, 12.15 – 13.15 h; Lecture Hall 24, Kupferbau

When	What
Tuesday, 16.12.2025 12.15 – 13.15	<b>Prof. Dr. Tamara Rathcke (University of Konstanz): Perceptual centers and why they matter</b>
	<p>The perception of spoken language presents listeners with many challenges as they have to extract linguistic meanings from acoustically compromised and frequently ambiguous sounds. Considering such challenges, it is perhaps not surprising that speech perception does not strictly map onto acoustic representations of spoken language. A case in point is the so-called perceptual centre (or the P-centre). Early investigations of the perception of rhythm structure in speech revealed a marked discrepancy between the physical and the subjectively perceived onsets of speech events (such as syllables or words). Sequences of alternating speech units tend to be perceived as irregularly timed if the intervening pause duration is kept constant. The perceived regularity can be reinstalled if, instead of regularising the intervals between acoustic onsets of speech units, their P-centres are regularly timed, though the exact location of the P-centre in speech has been challenging to determine. The P-center does not seem to consistently align with any particular acoustic landmark in the speech signal, yet it is widely regarded as the perceptual correlate of the rhythmic beat in speech. In this talk, I will present cross-linguistic evidence from a series of perceptual and sensorimotor synchronization experiments which document a consistent P-centre effect in speaker-listeners of English, French, and Japanese and show that difficulties with previous attempts to locate the P-centre in speech may stem from hitherto poorly understood variability in individual perceptual and timekeeping skills.</p>

Host: Yulia Oganian

Organisation: Bettina Rolke and Volker Franz

Welcome to everybody!