



EINLADUNG

zum Vortrag im Rahmen des Seminars des SFB/TRR 31

Freitag, 3. Februar 2017, 11.00 Uhr c.t.

im Raum W30 0-33/34 der Universität Oldenburg (NeSSy) und
Raum H28 / R 2.31 des Med. Campus Magdeburg (per Videoübertragung)

***"The role of articulatory motor cortex
in speech perception"***

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Human motor circuits are active during speech perception. However, the precise conditions under which the motor system is active during speech perception are not clear. Two prominent accounts make distinct predictions for how listening to speech engages speech motor representations. The first account suggests that the motor system is most strongly activated when observing familiar actions while a second account asserts that motor excitability is greatest when observing less familiar, ambiguous actions. I will first discuss how we investigated these predictions using transcranial magnetic stimulation (TMS) by measuring Motor Evoked Potentials (MEPs) in lip and hand motor cortex. Second, I will discuss a second experiment in which we aimed to further clarify the nature of activation of articulatory motor representations during speech perception. Firstly, it is unknown whether speech motor activity is preferentially engaged when perceiving forms of motor-based signal distortion (form dependent), or if motor activity is facilitated whenever perception is challenged, irrespective of the source of the difficulty (form independent). Third, it is unknown whether and how speech motor facilitation during speech perception is moderated by hearing ability, despite hearing sensitivity being paramount to understanding speech in challenging conditions. We investigated these questions in two final TMS/MEP experiments using young, normally hearing participants.