Sonderforschungsbereich/Transregio 31
“Das aktive Gehör”

E I N L A D U N G

zum Vortrag im Rahmen des Seminars des SFB/TRR 31

Freitag, 6. November 2015, 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)

"Individual differences in multisensory integration: a focus on ageing"

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The ability to readily recognize and act on sensory information is affected by developmental processes across the lifespan. However we, and others, have shown that age-related decline in perception may be compensated by the integration of multisensory inputs. Indeed, speech, object, person and spatial perception is better to congruent cross-modal than uni-sensory information in older adults. A reliance on multisensory information for the maintenance of perceptual functions may, however, come at a cost particularly when cross modal information is incongruent. For example, we found that older persons were more susceptible to the sound-induced flash illusion (Shams et al. 2000) than younger adults. Moreover, inefficient multisensory integration is associated with balance maintenance and postural control and may also be an important risk factor for falls and poor spatial cognition in older adults. These findings suggest that sensory interactions in the brain underpin efficient perception in older adults. Consistent with this, we found that efficient integration of sensory events is amenable to perceptual learning. I will discuss how our work has led to the development of serious game interventions, designed to rehabilitate balance control and spatial cognition in older adults. Our preliminary findings suggest that there may be important opportunities to maintain perceptual function throughout the lifespan through the use of technology-based interventions.