

Oral presentation

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Brain correlates of the embodied self: neurology and cognitive neuroscience

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Although most humans have never had any trouble localizing themselves within their own bodily borders, this sense of self location or embodiment is a fundamental aspect of self consciousness and requires specific brain mechanisms. Recent clinical and neuroimaging evidence suggests that multisensory integration of bodily and two.

Posterior brain regions, the temporo-parietal junction (TPJ) and cortex at/near the extrastriate body area (EBA) are crucial in coding embodiment.

In this seminar I will review three lines of research investigating brain correlates of embodiment. (1) Pathological states of embodiment (such as out-of-body experience and autoscopy) due to focal brain damage to temporo-parietal cortex and extrastriate cortex in neurological patients. (2) Recent findings on activations of the temporo-parietal cortex and extrastriate cortex in embodiment-related tasks using mental imagery in healthy subjects. (3) The experimental induction of disembodiment in healthy subjects using multisensory conflict and virtual reality.

I argue that these clinical and experimental findings on embodiment might turn out to be of relevance in defining functions and brain structures mediating fundamental aspects of self consciousness.