



MIND MEETING Seminar Series

2023

All welcome! Attendance is free

25 May

3.30 pm CEST hybrid talk on site (lecture hall of MPI CBS) and via Zoom please contact doeller-office@cbs.mpg.de for login details

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How expectations and their violations shape perception

Perception can be understood as the integration of peripheral input with an internal state of the organism governed by current (e.g. expectation) and past (e.g. experience) information. This process is implemented in the central nervous system comprising the spinal cord, brainstem and cerebral cortex. Recent advances in functional magnetic resonance imaging has allowed to investigate this system as a whole and enabling system level investigations in humans. This presentation will cover clinically relevant examples in pain and respiration. For instance, the phenomenon that asthma patients can experience an exacerbation of their symptoms when exposed to visual stimuli of relevant allergens (e.g. hay) can be seen as a clinically relevant nocebo effect. In the domain of pain studies have shown that expectations can both up- and down-regulate pain perception. The presentation will summarize EEG and fMRI results related to these placebo and nocebo effects, describe distinct neurobiological mechanisms and try to integrate these findings into an overarching framework.

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