

Swiss Center for Affective Sciences

The anatomy of Empathy: evidence from
cognitive and affective neuroscience

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GRADUATE SEMINAR

**Friday,
March 11th
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14:15 - 17:30

Campus Biotech
Room 144.165
9, chemin des Mines
Geneva

Empathy is the process through which people infer others' affective states by generating an isomorphic state in the self. In the last decade, a wealth of research effort has been invested in identifying the neural underpinnings of empathy, in the context of emotional states such as disgust, pain, joy, etc. In particular, seminal studies highlighted the hypothesis of "shared networks", according to which empathic experiences reflect the re-enactment of the same neural circuitry subserving first-person experience of the same state. This account, however, has been recently challenged in favor of alternative theories positing a clear segregation between representation of one's own and others' affective states. In this graduate seminar, I will review the most relevant research investigating the neural underpinnings of empathy. In particular, I will focus on the paradigms of "empathy for pain", in which individuals observe others receiving noxious stimuli, with consequent enhancement of activity in brain regions such as the insular and cingulate cortex, held to play a key role in first-hand nociceptive experiences. Within this domain, I will discuss different experimental techniques (functional Magnetic Resonance Imaging [fMRI], electroencephalography [EEG], lesion data, etc.), highlighting the strengths and limitations of each. The aim of this seminar is to build an interactive discussion with the students about (a) what previous studies claimed to have discovered, (b) whether these claims are substantiated and (c) how to overcome limits of previous research in order to put different theories of empathy at the test. ■

Swiss Doctoral School in Affective Sciences

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