Minerva Center
for human intelligence
in immersive, augmented
and mixed realities

MINERVA
STIFTUNG

Minerva Center for human intelligence in immersive augmented and mixed realities seminar series

Prof. Simone Shamay-Tsoory

University of Haifa

Monday, June 5th at 14:15

Sharet Building
Room 214

The empathic brain:

A two-brain approach for understanding empathy.

Empathy allows us to understand and share one another's emotional experiences. Despite the developments in the study of empathy, the vast majority of empathy paradigms focus only on passive observers, carrying out artificial empathy tasks in socially deprived environments. This approach significantly limits our understanding of interactive aspects of empathy and how empathic responses affect the distress of the sufferer. We recently proposed a brain model that characterizes how empathic reactions alleviate the distress of a target. In a series of experiments, we examined brain-to-brain coupling during empathic interactions. We show that, brain-to-brain coupling in the observation-execution (mirror) network increases in empathy conditions. Critically we found that brain-to-brain coupling predicts distress regulation in the target. We extend this work to understand interaction of groups and show aberrant synchrony in autism spectrum conditions. We conclude that employing this multi-brain approach may provide a highly controlled setting in which to study social behavior in health and disease.