

## The role of the opioid system for empathic responses to pain and their link to prosocial behaviour - OPIOIDEMPATHY

### Abstract

This project is about the neural basis of empathy and the assumption that this complex social skill relies on the simulation of own feelings. We plan to test whether the opioid system, which plays a crucial role in processing directly experienced pain, is also involved in empathy for pain. To this end, we will manipulate actions of the opioid system and study people who show a certain genetic variation which influences the opioid system. Participants will receive pills affecting their pain sensitivity. While undergoing painful stimulation, their neural activity will be measured using functional magnetic resonance imaging. In another set of trials, participants will witness other persons undergo the same painful stimulation. Similar activity during directly and vicariously experienced pain would indicate similar functional processes. We expect to significantly advance our knowledge about how we understand others, and how this may result in prosocial behavior and, ultimately, interpersonal cooperation.

Keywords:

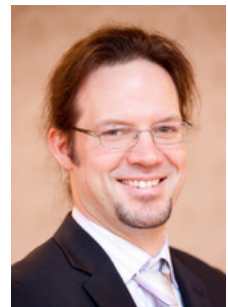
empathy, simulation, embodiment, opioid system, prosocial behaviour, functional magnetic resonance imaging (fMRI)

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Further links about the involved persons and regarding the project you can find at

[https://archiv.wwtf.at/programmes/cognitive\\_sciences/CS11-016](https://archiv.wwtf.at/programmes/cognitive_sciences/CS11-016)