

## Like me: The evolutionary and neuro-cognitive basis of the link between imitation, empathy and prosocial behaviour in dogs and humans

### Abstract

This proposal addresses one of the most enduring and crucial problems in cognitive science: what is the relationship between cognition and emotion? Two recent discoveries have contributed to this question: cognitive scientist have revealed that imitation, emotion understanding and empathy are tightly linked, and social psychologists found that peoples' tendency to inadvertently copy each other's gestures facilitates social interaction. This project aims at resolving three open questions, with respect to the ultimate (evolutionary) and proximate (neurocognitive) mechanisms mediating these relationships. These questions are multi-level in nature and therefore require interdisciplinary approaches and complementary expertise. Bringing together a team of leading European experts, we will conduct behavioral experiments on dogs and behavioral and neuroscientific ones in humans. We expect major breakthroughs in understanding the mechanisms that enable the establishment and maintenance of cooperation and well-being, with considerable societal and ethical relevance.

#### Keywords:

imitation, empathy, prosocial behaviour, cooperation, dogs, humans, 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/CS11-005](https://archiv.wwtf.at/programmes/cognitive_sciences/CS11-005)