



## MASTER 2 Fundamental and Clinical Neurosciences

### Internship proposal 2024-2025

*(internship from January to June 2025)*

**Host laboratory:** *Ghent University, Department of Experimental Psychology*

*Henri Dunantlaan 2, 9000 Gent, Belgium*

**Host team :** *Social & Cognitive Neuroscience Lab*

*<https://bardilab.com/>*

**Internship supervisors :** *Prof. Dr. Lara Bardi (PI, [lara.bardi@ugent.be](mailto:lara.bardi@ugent.be))*

*Dr. Rui Liu (postdoc, [rui.liu@ugent.be](mailto:rui.liu@ugent.be))*

**Project title :** *Modulation of self and other conceptual world: the brain network*

**Project summary :** *This project aims at investigating the behavioral and neural mechanisms of how we track other's mental states. The project may entail both behavioral and fMRI studies and will employ variants of a False Belief tracking task that aims at examining functional subdivision of the Theory of Mind network. In the lab, we are also developing a real-time social interaction paradigm, potentially combining EEG/fNIRS hyperscanning, to tackle the research question in an ecologically valid ground. The intern might be involved in this research as well.*

#### **3-5 recent publications :**

Bardi, Desmet, Nijhof, Wiersema and Brass (2017). Brain activation for spontaneous and explicit false belief tasks overlaps: new fMRI evidence on belief processing and violation of expectation. *Social Cognitive and Affective Neuroscience*. 391–400

Bardi, Desmet & Brass (2019). Spontaneous Theory of Mind is reduced for nonhuman-like agents as compared to human-like agents. *Psychol Res*. 83(7):1571-1580

Liu, Stolk, de Boer, Oostenveld. & Toni. (2021) Oxytocin facilitates communicative adjustment by upregulating broadband aperiodic neural activity. *PsyArXiv*. doi: 10.31234/osf.io/kq9g6