

## **Theme: Cognitive Neuroscience**

### **Empathy, Physiological Synchrony, and Emotional Contagion in Social Perception and Interaction**

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#### **Abstract:**

The following abstract corresponds to the first experimental stage of the presenting author's PhD project.

This project investigates the role of empathy in driving physiological synchrony, both within individuals and between individuals during emotional and social interactions. Physiological synchrony—coordinated responses such as heart rate, skin conductance, and brain activity—has been linked to emotional contagion, cooperation, and social bonding. Drawing on empathy's key role in facilitating these processes, the study aims to clarify how empathy influences physiological coordination in response to emotional stimuli and social decision-making tasks.

This study will examine within-person synchrony, measuring physiological responses to emotional versus neutral stimuli (videos and sounds).

**Keywords:** Empathy, Physiological Synchronisation, ERP