

Open PhD position – on investigating children’s synchronization and literacy skills in interactive virtual environment

Applications are opened for a fully funded 3-year PhD fellowship at Paris Cité University. We are recruiting a talented candidate with a focused interest in the study of children’s synchronization capacity and language skills using virtual reality and electrophysiological methods. This position is part of the project INTERACT (Young Researcher Grant, French Agence National de la Recherche, ANR) led by Valentin Bégel (PhD).

JOB DESCRIPTION

In this PhD project, you will conduct a series of experimental studies to assess the effect of interactive synchronization tested in a virtual environment on rhythm and learning capacities as well as gradients of language skills in children. You will use Electrophysiology by means of mobile EEG to assess these capacities and skills. The general goal of this research is to boost children’s synchronization skills through interactive coordination. You will use Virtual Reality (VR) environments to simulate such interaction with a partner to explore the effect of social context in rhythmic tasks. You will also test whether synchronization with a virtual partner can influence the linguistic performance of children.

The candidate will be supervised by Valentin Bégel (PhD). This project will be conducted in close collaboration with Prof. Sonja Kotz (Maastricht University). Other international collaborations (UK, Canada) are possible in the framework of the project.

Specifications

- 3-year fully funded PhD position
- 37.5 hours per week
- Minimum salary €2.200 per month before taxes (including benefits)
- Expected start date: 01-09-2024
- Paris Cité University, Paris, France [View on Google Maps](#)

REQUIREMENTS

Background

- A Master’s degree in cognitive/developmental/movement neuroscience or a related field obtained before the start date.

Skills

- Knowledge of statistics and timeseries analysis, programming skills desired(e.g., python/matlab/R)
- Experience with at least one of the following methods:
 - Electrophysiology (EEG/mobile EEG)
 - Virtual reality
 - Motion capture techniques
- A scientific mindset, critical thinking capacity, and a strong interest in cognitive, developmental, and movement neurosciences
- Excellent communication skills and the ability of working in a team
- Good command of written and spoken English. Basic skills in French or willingness to acquire basic French will be an asset

CONDITIONS OF EMPLOYMENT

Fixed-term contract of three years covering social and health insurance.

EMPLOYER

At the heart of a global network of knowledge and innovation, Université Paris Cité is France's leading multidisciplinary university. It covers a wide range of disciplines, with one of the most comprehensive and ambitious educational offerings available in the world. Université Paris Cité is part of the incarnation of a world city, aware of its place and missions, open to youth and knowledge. Born in 2019 from the merger of the universities of Paris Diderot, Paris Descartes, and Institut de physique du globe de Paris, the ambition of Université Paris Cité is to lead and develop an exceptional potential to meet the challenges of tomorrow's society. With a recognized international standing, as well as a strategic portfolio of privileged academic partners throughout the world, it offers its students state-of-the-art, innovative courses.

RESEARCH ENVIRONMENT

The PhD candidate will be working at the *Institut des Sciences du Sport Santé de Paris* (I3SP). The I3SP is a multidisciplinary research centre that aims at i) identifying the physiological, cognitive, perceptual, and social determinants of the body in action, and ii) studying adaptation and learning mechanisms in interaction with technology (e.g., virtual reality, video games). Experiments will be conducted in the platform *Modulation et Adaptation du Corps en Action* (MACA, <https://plateformes.u-paris.fr/plateforme-modulation-et-adaptation-du-corps-en-action-maca/>), dedicated to movement, physiology, and VR research at the I3SP.

APPLICATION PROCEDURE

Documents should be sent in email to Valentin Bégel (valentin.begel@u-paris.fr).

Send a detailed CV and a motivation letter of application describing your academic background, research experience and interests, and highlighting your qualifications for the position. Additional documents may be required during the recruitment process.

For more information, please contact Valentin Bégel (valentin.begel@u-paris.fr). Informal queries before application are welcome.