

**Position: ERC-funded researcher position in computational psychiatry**  
(TRAD-PSR-2024-16)

**Open date:** 26 July 2024

**Funding source:** PREUR00224 - HEu-ERC-SyG-101118756-DELTA-LANG

- Project: The Delta of Language
- Program: ERC-Synergy

Our [lab](#) (GraC) is unfolding a research scheme structured by two new European grants, TRUSTING (Horizon Europe) and DELTA-LANG (ERC Synergy), the former seeking to clinically trial a new speech-monitoring tool in psychosis, while the latter is foundational and aims to map fluctuating brain states onto a linguistic model. This position is within DELTA (see press release [here](#)). We are looking for a highly motivated early-stage researcher who will assist in defining and running pipelines for computational linguistic analyses of spontaneous speech in mental disorders, particularly at a semantic level. Our specific recent focus is on how speakers with disorders of thought navigate the semantic space when constructing meaning in speech. You will have the opportunity of developing your own independent research line in the frame of this project, and we encourage enrolling in our PhD program in parallel. The lab has large resources in terms of multilingual datasets including multimodal datasets including both speech and fMRI from patients.

**Tasks:**

- Assist in the analysis of speech data from patients with mental disorders (especially, psychosis) using NLP and large language models, across multiple languages.
- General research support in the frame of the project.
- Co-organizing the work of the DELTA-team on a day-to-day level.
- Some contribution to new, ongoing data acquisitions organized by the group.
- Liaising with other groups and members of the DELTA consortium.
- Contribution to publications and communications.

**Requirements:**

- MA in linguistics, computational psychiatry, psychology, data science, or cognitive neuroscience. The MA degree must be in hand at the time of the start of the contract.
- Knowledge in empirical methods in one or more of the following fields:
  - Natural language processing (NLP)
  - Large Language Models (LLMs)
  - Computational semantics
  - Background in theoretical linguistics
  - Programming in Python or another relevant language
  - Knowledge of statistics and relevant packages

- Excellent team worker.
- Keen research interests in both language and computational psychiatry.
- Interests in highly interdisciplinary research and independent mindset.
- Previous experience with neuroimaging (MRI) will be valued.
- Interest and experience in neuroimaging data analysis (fMRI) is valued.

**Benefits:** 27.977,68€ gross salary

**Group and compliment:** group 3 letter u

**Job status:** full-time, 35 hours per week

**Type of contract:** Indefinite according to RD 32/2021 of December 28, 2021  
The contract has an expected duration of 2 years because of the actual timeline for the tasks related to the data collection and implementation of the intervention.

**Selection criteria:**

- Letter of motivation (40 points)
- CV (30 points)
- Interview (30 points)

**Selection committee:**

President: Wolfram Hinzen

Vocal 1: Txuss Martín

Vocal 2: Louise McNally

**Submission of applications:** applications must be submitted through [Interfolio](#)

**Application deadline:** 1 September 2024