



Postdoctoral positions in Decision Neuroscience at Trinity College Dublin

We invite applications for multiple postdoctoral positions at the Institute of Neuroscience & School of Psychology, Trinity College Dublin. Successful applicants will engage in experimental, analytical, and computational research at the intersection of human decision neuroscience and cognitive computational neuroscience.

Research project:

These positions are funded by the European Research Council (ERC) Consolidator Grant “*The Dynamics of Attribute Weighting in Multiattribute Choice*” (DYNATT) awarded to Prof. Konstantinos Tsetsos. The project aims to describe the neural and computational mechanisms underlying **preference variability**. In particular, the project will describe how the human brain shapes, maintains and revises preferences for different attributes. We will utilise magnetencephalography (OPM-MEG) to decode preferences for different attributes at the level of single multiattribute decisions. This will enable us to chart the temporal dynamics of multiattribute preferences across successive decisions and that way identify the underlying mechanisms that shape these dynamics.

The project sits at the intersection of decision science and cognitive neuroscience. It aims to offer mechanistic insights into when, how, and why preferences change. Beyond advancing theory, these insights have the potential to inform clinical research on pathological preference variability or persistence (e.g., in addiction); and to guide policy making, by for example probing how stable or plastic specific consumer tradeoffs (e.g., between monetary and environmental attributes) are.

Research vision in the *Irrationality Lab*:

The postdoctoral researchers will be based in the [Irrationality lab](#), a cognitive & decision neuroscience group led by Prof. Konstantinos Tsetsos. The lab pioneers the computational modelling of human decision-making grounded in neurophysiological data. Our overarching goal is to explain behavioural regularities in human choice (including puzzling effects, such as preference reversals) at the level of neural mechanisms.

Earlier work by the PI employed reduced experimental paradigms to study complex, multiattribute decisions within controlled settings. Building on this foundation, the lab’s previous ERC-funded research (Starting Grant *INFOSAMPLE*) progressively reintroduced ecological realism to experimental approaches, while maintaining mechanistic tractability. The current *DYNATT* project continues this trajectory, venturing into preferential decision-making. Harnessing neurophysiology, we seek to understand how decision-theoretic constructs (such as preferences and noise) are instantiated in the human brain. We hope that this understanding will lead to the development of new tools to tackle clinical and societal challenges.

Research Environment:

Trinity College Dublin (TCD) is a research-intensive university, priding itself in world-leading interdisciplinary research. The *DYNATT* project will be embedded in the Trinity College Institute of Neuroscience (TCIN) and the School of Psychology, which foster dynamic and multidisciplinary communities, uniquely integrating basic and translational neuroscience research. TCIN provides outstanding resources for research excellence, with access to exceptional neuroimaging facilities, including two high-field MRI labs, EEG systems and a newly installed OPM-MEG system, one of the first of its kind in Europe. Outside TCD, the lab maintains close collaborative links with internationally leading neuroscience, behavioural science, and cognitive psychology groups.

Qualifications:

- A PhD (completed or close to the completion) in cognitive science, psychology, neuroscience, computer science, or a related discipline.

Essential skills:

- Excellent programming and quantitative skills.
- Experience with E/MEG experimentation and analysis techniques.
- Broad familiarity with the judgment & decision-making literature.
- Excellent oral and written communication skills.
- Experience in writing and publishing peer reviewed scientific papers.

Desirable skills:

- Expertise in advanced neural decoding and multivariate pattern analysis.
- Expertise in building computational models of cognition.
- Expertise in dynamical systems theory, applied to neuroscience and beyond.
- Familiarity with systems neuroscience literature and methods.
- Familiarity with decision theory and biophysical modelling.

Specifics:

Appointments are available for a minimum of three years, with the latest possible start date November 2026. Positions will be offered at a salary commensurate with experience and qualifications, in line with the [IUA Salary Scales for post-PhD Researchers](#).

Applications will be reviewed until positions are filled. Applicants should provide the following documents:

- A cover letter up to one page describing research vision, skills, career goals and motivation to apply for the position.
- A detailed CV, including the contact information of two referees.
- Two samples of their work.

To apply and for further information please contact Konstantinos Tsetos: tsetosk@tcd.ie

Applications from underrepresented groups are strongly encouraged. We are [committed](#) to providing a working environment that offers equal opportunities regardless of age, gender, sexual identity, disability, origin or religion.