

Lingyu Meng

L.Y._Meng@outlook.com

<https://github.com/Lingyu-Meng>

EDUCATION

09/2023 - 09/2024

University of Sheffield

MSc in Systems Neuroscience with Distinction (1st class in UK)

09/2017 - 07/2021

Beijing Technology and Business University

BSc in Statistics

SELECTED RESEARCH EXPERIENCE

06/2024 - 08/2024

Master Student (Dissertation)

Individual difference in processing reward, loss, and uncertainty

University of Sheffield; Advisor: Dr. Hazem Toutounji, Dr. Alekhya Mandali

The primary aim of this research project is to investigate how individual differences in psychiatric traits, specifically anxiety, impulsivity, and intolerance of uncertainty influence decision-making strategies in the context of reward or loss. The study seeks to understand how these traits affect individuals' value-based decision-making behaviour and how they interact with each other. **I received a score of 81 for this dissertation, which is the highest grade in the UK grading system.** ([GitHub](#))

- Built computational model to investigate the relationship of intolerance of uncertainty, impulsivity and exploration (Kalman filtering and GLMM)
- Deployed online experiment (2-armed bandit) on Gorilla
- Programmed analysis code (R and MATLAB) and performing data analysis
- Wrote up the manuscript
- Approved submissions and paid bonuses via Prolific

08/2022 - 04/2023

Full-Time Research Assistant

Beijing Normal University; Advisor: Prof. Yina Ma

The iEEG study aims to investigate the neural underpinning (synchronisation) of group decision making and bounding.

- Integrated MRI and CT to localise and label electrodes of intracranial electroencephalography (iEEG) by FieldTrip and FreeView
- Utilised LASSO, latent profile analysis (LPA), PCA to analysis behaviour pattern in inter-group conflicts
- Performed neural data cleaning, wavelet transform and time frequency analysis
- Utilised random forest to decoding economic games behaviour from neural data

06/2021 - 08/2022

Volunteer Research Assistant

The mechanism of leadership helping group survival from between group conflict

Beijing Normal University; Advisor: Prof. Yina Ma; in collaboration with: Dr. Hejing Zhang;

This study aims to establish a normative model to prove the leadership structure has advantage in terms of evolution.

- Conducted literature reviews on evolutionary games theory

- Programmed evolution models to investigate the role of leadership in inter-group conflicts using MATLAB

CONFERENCE

Toutounjin, H., Meng, L. & Mandali, A. (2025, Mar 27 - 30). *Individual difference in processing reward, loss, and uncertainty* [Submitted conference presentation abstract]. Computational and Systems Neuroscience 2025, Montreal, Quebec, Canada.

Meng, L., Mandali, A. & Toutounjin, H. (2024, Sep 13). *Individual difference in processing reward, loss, and uncertainty* [Poster presented]. the Computational Psychiatry Course, Zurich, Canton of Zurich, Switzerland. ([poster](#))

Meng, L. (2024, Mar 25-28). *Neural Mechanisms Underlying the Enhanced Cooperation Induced by Multicultural Experience* [Poster presented]. the Society for Social Neuroscience Annual Meeting, Tsukuba, Ibaraki, Japan. ([poster](#))

The poster above won the Open Science Cash Prize (5000 JPY).

SELECTED TRAINING

16 - 27 /09/2024 Summer School

The Cognitive Neuroimaging Skills Training In Cambridge (COGNESTIC) 2024

MRC Cognition and Brain Sciences Unit, University of Cambridge, UK

07 - 14 /09/2024 Summer School

Computational Psychiatry Course (CPC) Zurich 2024

Translational Neuromodeling Unit, University of Zurich & ETH Zurich, Switzerland

26 - 30 /08/2024 Summer School

The Computational Neuroscience, Neurotechnology and Neuro-inspired AI (CN3)

Intelligent Systems Research Centre (ISRC), Ulster University, UK

31/7 - 03/08 /2024 Summer School

1st Computational Decision Neuroscience Summer School

Affiliated Mental Health Center, Zhejiang University School of Medicine, China

31/07/2024 Workshop

ECR workshops, UK Neural Computation 2024

University of Sheffield, UK

- Workshop on Grant Writing

OTHER RESEARCH EXPERIENCE

07/2024 - Present Volunteer Research Assistant

University of Sheffield; PI: Dr. Myles Jones; In collaboration with: Satwika Rahapsari

- Recruiting adolescents participants and running experiment (EEG)

17/06/2024 Collaborator

AI Replication Games (A Big Team Science Project)

Project Leader: Dr. Abel Brodeur, Dr. David Valenta;

I collaborated with two assigned partners to reproduce the code of a published study.

04/2024 Data Analysis and Visualisation

Remote collaboration fuses more citable ideas (Now)

- Re-analysed and visualised the data published in Nature and confirmed the presence of selection bias. In contrast to the original paper, I found that remote collaboration may exhibit higher quality. ([Github](#))