

Yulong HUANG

PhD candidate in Social Cognitive Neuroscience

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Brief Bio

I am currently a PhD student in Social and Cognitive Neuroscience at the Department of Experimental Psychology, Ghent University. I work under the supervision of Prof. Dr. Lara Bardi at the Social & Cognitive Neuroscience Lab.

My academic path is shaped by an interdisciplinary background. Before entering the field of neuroscience, I studied journalism and documentary filmmaking in South China, where I developed a deep interest in exploring society through individual narratives. This early experience continues to shape my scientific work, encouraging me to ask nuanced questions about human behaviour and cognition. My current research focuses on several aspects: i) how learned associations can unconsciously drive our decisions (Pavlovian biases), ii) how perceptions of social dominance and hierarchy influence our decision-making during interpersonal interactions (Facial perception), and iii) how we mentally represent ourselves and others in social contexts (Perspective taking). To investigate these questions, I use a multi-method approach that includes fMRI, EEG, eye-tracking, and intranasal oxytocin administration, methods that allow me to map the interplay between brain, behaviour, and both social and non-social contexts.

Driven by my interdisciplinary background, I'm also passionate about bridging science and art. As co-founder of NeuroNarratives, an art-science residency initiative, we work to create space where neuroscience and art come together to make research more human, accessible, and resonant.

Education

Doctoral of Psychology in Social Cognitive Neuroscience

Ghent University (UGent)

Ghent, Belgium

Nov. 2023 - present

- Under the supervision of Prof. Dr. Lara Bardi and Prof. Dr. Ruth Krebs
- Thesis Title - How Environmental Cues Influence Decision-making: Unravelling the Behavioural and Neural Mechanisms of Pavlovian-to-Instrumental Transfer (PIT) Effect
- Methodologies - fMRI, Pupillometry, Eye-tracking and Behavioural

Doctoral of Science in Cognitive Neuroscience

Université Claude Bernard Lyon 1 (Institute for Cognitive Science Marc Jeannerod, UMR5229, CNRS)

Lyon, France

Sep. 2021 - Dec. 2023

- Under the supervision of Dr. Lara Bardi and Dr. Angela Sirigu
- The effect of oxytocin on the perception of tactile sensations of internal and external origin. (*In preparation*)
- Oxytocin-induced modulation of explicit and implicit perspective-taking. (*Published*)

Research Master of Education in General Psychology

South China Normal University (SCNU)

Guangzhou, China

Sep. 2018 - Jun. 2021

- Under the supervision of Prof. Dr. Chen Qu
- Thesis Title - The Facial perception and attention preference of Social Dominance traits in Humans and its modulation of decision-making behaviour
- Methodologies - Frequency-tagging EEG, tDCS, Oxytocin and Digit-tracking

Bachelor of Arts in Chinese Language and Literature (Journalism)

Zhujiang College of South China Agricultural University (SCAU, ZJ)

Guangzhou, China

Sep. 2011 - Jun. 2015

- Documentary film of Chinese poetry, Sounds of Freedom (B.A. thesis)

Academic Experiences

Awarded visiting PhD student (4 months)

Social Brain Lab, Netherlands Institute for Neuroscience (NIN)

Amsterdam, Netherlands

June. 2023 - Sep. 2023

- Under the supervision of Prof. Dr. Valeria Gazzola
- Project: Neural Mechanism of Cue-triggered Decision Making: The Role of Motor System

Junior engineer internship (4 months)

Institute for Cognitive Science Marc Jeannerod, UMR5229, CNRS

Lyon, France
Jun. 2020 – Oct. 2020

- Under the supervision of Dr. Angela Sirigu and Dr. Irene Cristofori
- Project: Grooming behaviour in preverbal infants. (Behavioural coding analysis)

Awarded visiting master student (6 months)

Université Claude Bernard Lyon 1

Lyon, France
Nov. 2019 – Jun. 2020

- Under the supervision of Dr. Angela Sirigu and Dr. Lara Bardi
- Project: The role of oxytocin on the sensory prediction of tactile stimuli.

Fellowships

PhD Fellowship from Ghent University | 1 years | Nov. 2025 – Nov. 2026

PhD Fellowship from Chinese Scientific Council | 4 years | Nov. 2021 – Nov. 2025

Outgoing Fellowship from Université Claude Bernard Lyon 1 | 4 months | June. 2023 – Sep. 2023

International Exchange Fellowship from South China Normal University | 6 months | Nov. 2019 – Jun. 2020

Grants

Art and Science Communication Grant, Netherlands Institute for Neuroscience (NIN), for the *NeuroNarratives* Art-Science residency initiative (2024-2026) €6,000

Art and Science Communication Grant, Federation of European Neuroscience Societies (FENS) & Dana Foundation, for a *NeuroNarratives* event during Brain Awareness Week 2025 €1,000

FWO (The Research Foundation – Flanders, Belgium) - Travel Grant for the International Conference on Cognitive Neuroscience (ICON) 2025, as symposium organizer and oral presenter €350

CWO (Commission of Scientific Research of the faculty, Ghent University) - Travel Grant for the International Conference on Cognitive Neuroscience (ICON) 2025, as symposium organizer and oral presenter €800

FWO - Organisation of a scientific conference grant in Belgium for the Social & Moral Brain Seminar 2025 in Belgium, as organizer (Spokesperson: Prof. Dr. Lara Bardi) €2,080

CWO - Organisation of a scientific conference grant in Belgium for the Social & Moral Brain Seminar 2025 in Belgium, as Organizers (Spokesperson: Prof. Dr. Emilie Casper) €3,212

Ghent University Doctoral School Funding for a Meet the expert activity 2025 €1,200

Ghent University Doctoral School Funding for Computational Psychiatry Course 2024 €600

Publications

Huang, Y., Qu, C., Wei, C., & Bardi, L. (2026). Oxytocin-induced modulation of explicit and implicit visual perspective taking. *Scientific Reports*. <https://doi.org/10.1038/s41598-026-40445-2>

Finotti, G., Degni, L. A., Badioli, M., Dalbagnò, D., Starita, F., Bardi, L., Huang, Y., Wei, J., Sirigu, A., Gazzola, V., di Pellegrino, G., Garofalo, S. (2025). Cortical beta power reflects the influence of Pavlovian cues on human decision-making. *Journal of Neuroscience*, 45(6). <https://doi.org/10.1523/JNEUROSCI.0414-24.2024>

Qu, C.*, Huang, Y.*, Philippe, R.*, Cai, S., Derrington, E., Moisan, F., ... & Dreher, J. C. (2024). Transcranial direct current stimulation suggests a causal role of the medial prefrontal cortex in learning social hierarchy. *Communications Biology*, 7(1), 304. <https://doi.org/10.1038/s42003-024-05976-2>

Li, S.*, Huang, Y.*, Xu, C., Wu, J., & Qu, C. (2024). Asymmetric Adaption in Social Learning: Understanding the Dilemma of Competition and Cooperation. *Behavioral Sciences*, 14(8), 721. <https://doi.org/10.3390/bs14080721>

Yang, Y., Mo, L., Lio, G., Huang, Y., Perret, T., Sirigu, A., & Duhamel, J. R. (2023). Assessing the allocation of attention during visual search using digit-tracking, a calibration-free alternative to eye tracking. *Scientific Reports*, 13(1), 2376. <https://doi.org/10.1038/s41598-023-29133-7>

*Indicate co-first author with equal contribution

Upcoming Manuscripts

Huang, Y., , Qu, C., Gazzola, V., Garofalo, S., Francesca, S., Ruth k., ..., Di Pellegrino, G., Michel, D., Sirigu, A., Bardi, L. (2026). Motor Activation in Cue-guided Behaviour: Neural Evidence from Human Pavlovian-to-Instrumental Transfer (PIT). (Under review in *NeuroImage*)

Huang, Y.*, Yang, Y.*, ..., Qu, C. (2026) Spontaneous Attention to Facial Dominance in Children and Adults: A Digit-Tracking Study. (Under review in *Humanities and Social Sciences Communications*)

Zhan, L.*, Huang, Y.*, Qu, C. (2026). Chasing Crowns for Coins: How Social Status and Reward Expectations Guide Approach Behavior in Spatial Foraging Games. (Under review in *Journal of Experimental Psychology: General*)

Huang, Y., Vreye, J., Krebs, R., Bardi, L. When Conditioning Sticks: Investigating the Persistence of Pavlovian-to-Instrumental Transfer (PIT) Effect Across Time. (In preparation)

Huang, Y.*, Su, Y.*, ..., Bardi, L., Qu, C. Oxytocin modulates the automatic discrimination of Social Dominance Revealed by Fast Periodic Visual Stimulation (FPVS). (In preparation)

Huang, Y.*, Bardi, L.*, Qu, C., Sirigu, A. The effect of oxytocin on the perception of tactile sensations of internal and external origin. (In preparation)

Li, S.*, Huang, Y.*, ..., Qu, C. The emergence of social dominance dynamic through interpersonal neural synchronization. (In preparation)

Conferences & Workshops

Symposium & Oral presentation

The International Conference on Cognitive Neuroscience (ICON) | Porto, Portugal | September 2025

Symposium "From Adaptive To Maladaptive: Rethinking The Malleability Of Pavlovian Bias In Decision-making." Co-organizer and Presenter: The Motor Pathway of Pavlovian Bias: Neural Mechanisms Underlying Pavlovian-to-Instrumental Transfer (PIT) in Human.

The European Society for Cognitive and Affective Neuroscience (ESCAN) | Ghent, Belgium | May 2024

- Symposium "From self-priority to mentalizing about others: New insights in experimental, clinical, psychopharmacological and neuroimaging research." Presenter: Oxytocin-induced modulation of explicit and implicit Visual perspective-taking.
- Symposium "Neurocomputational Representations of Learning Behaviour in Social Interactions." Organizer and presenter: The causal role of the medial prefrontal cortex in learning social hierarchy relationships.

Poster presentation

From Self-Knowledge to Knowing Others (5th edition) Workshop | Brussels, Belgium | November 2025

Poster presentation: Oxytocin-induced Modulation of Explicit and Implicit Visual Perspective Taking

Social & Moral Brain Seminar | Ghent, Belgium | October 2025

Poster presentation: Facing Social Dominance: Oxytocin Modulates Early Neural Responses to Facial Dominance

Belgian Society for Neuroscience | Leuven, Belgium | October 2025

Poster presentation: Motor Activation in Pavlovian Bias: Neural Evidence from Pavlovian-to-Instrumental Transfer (PIT) in Human

NeuroFrance | Lyon, France | May 2023

Poster presentation: The effect of oxytocin on the perception of tactile sensations of internal and external origin.

Human Brain Project Conference (HBP) | Marseille, France | March 2023

Poster presentation: Neural Mechanism of Cue-triggered Decision-making: the Role of Motor System.

The 22nd Conference of the European Society for Cognitive Psychology (ESCOP) | Lille, France | Sep. 2022

Poster presentation: Neural Mechanism of Cue-triggered Decision-making: the Role of Motor System.

Federation of European Neuroscience Societies (FENS) | Paris, France | July. 2022

Poster presentation: The effect of oxytocin on the perception of tactile sensations of internal and external origin.

Workshop & Course

Cardiovascular measurements in affective (neuro)sciences in youth and adults Course | Ghent, Belgium | January 2025

Computational Psychiatry Course | Zürich, Switzerland | September 2024

Workshop of Oxytocin and Vasopressin: From Brain Modulation to Epigenetic Regulation and Clinical Applications | Erice, Sicily, Italy | May 2022

Communication projects

NeuroNarratives: Art – Science Residency Initiative (2024-2026)

Co-founder of the initiative. More information about the program: <https://neuro-narratives.com/>

Lowland Science 2025 – The Empathy Machine

Volunteer and collaborator with Prof. Dr. Suzanne Dikker on her ERC-funded project involving real-time neuroscience data collection at Lowlands Science 2025.

Supervision

Master thesis

2022-2023 supervision of 1 Master's thesis projects at South China Normal University

2023-2026 supervision of 3 Master's thesis projects at Ghent University

Internship

2022-2023 supervision of 1 Master's internship at Université Claude Bernard Lyon 1

2023-2026 supervision of 2 Master's internships at Ghent University

Bachelor student

2023-2026 supervision of 2 Bachelor's research projects at Ghent University

Skills

- **Programming and data analysis:** MATLAB, R, Python, JavaScript, STATA, JASP
- **Neuroimaging and neurophysiological methods:** fMRI, tDCS/HD-tDCS
- **Experimental and behavioral methods:** Eye-tracking, digit-tracking, intranasal oxytocin paradigms, ethological behavioral observation
- **Experimental software:** PsychoPy, OpenSesame, jsPsych
- **Languages:** Chinese (native), Cantonese (fluent), English (fluent), French (A1), Dutch (A2)

Last Version 2026.03