Dongyu Gong

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EDUCATION

PhD student in neuroscience, Yale University, United States Aug 2023 – Now

- Transferred from the University of Oxford
- Coursework: Algorithms of the Mind, Machine Learning

PhD student in cognitive neuroscience, University of Oxford, United Kingdom Oct 2021 – Jul 2023

- Clarendon Scholar
- Advisors: Kia Nobre, Dejan Draschkow

BSc, Tsinghua University, China Aug 2017 – Jun 2021

- Major in Psychological & Cognitive Science, Minor in Computer Science
- GPA: 3.90/4.0, GPA rank: 1/38 (summa cum laude)
- Coursework: Calculus (4.0), Linear Algebra (4.0), Probability Theory (4.0), Python Programming (4.0), Big Data and Machine Intelligence (4.0), Foundations of Neural Science and Neural Engineering (4.0), Brain Imaging Data Analysis (4.0), Psychology of Language (4.0), Cognitive Psychology (4.0), Fundamentals of Computer Aided Design (4.0), Students Research Training Project (4.0), Digital Media Technology (4.0), C Language Programming (P), Dialogue Between Neuroscience and Artificial Intelligence: Fundamentals and Frontiers (P)

PUBLICATIONS

Gong, D., Belledonne, M., Nobre, A. C., & Yildirim, I. (in preparation). An algorithmic model of working memory based on sparse variational Gaussian processes.

Gong, D., Draschkow, D., & Nobre, A. C. (in submission). Dissociable Neural Dynamics of Attentional Orienting in Working and Long-Term Memory.

Gong, D., Draschkow, D., & Nobre, A. C. (2025). Focusing attention in working and long-term memory through dissociable mechanisms. *Nature Communications, 16*, 4126.

Gong, D., & Zhang, H. (2024). Self-attention limits working memory capacity of transformer-based models. *NeurIPS 2024 Workshop on Behavioral Machine Learning*.

Gong, D., Wan, X., & Wang, D. (2024). Working memory capacity of ChatGPT: an empirical study. *Proceedings of the AAAI Conference on Artificial Intelligence*, *38*(9), 10048-10056.

Gong, D., & Theeuwes, J. (2021). A saliency-specific and dimension-independent mechanism of distractor suppression. *Attention, Perception, & Psychophysics*, *83*, 292-307.

SELECTED TALKS

April 2024, **Cognitive Neuroscience Society Annual Meeting**, *EEG signatures of orienting attention to long-term vs. working memory contents*, Toronto, Canada.

November 2023, **Society for Neuroscience Annual Meeting**, *Dissociable neural processes during attentional selection within working memory and long-term memory*, Washington D.C., United States.

SELECTED PRESENTATIONS

Gong, D., Draschkow, D., & Nobre, A.C. (May 2023). Focusing attention in long-term and working memory improves recall and guides perception. *Poster Presentation at Vision Sciences Society Annual Meeting*, St. Pete Beach, United States.

Gong, D., Draschkow, D., & Nobre, A.C. (July 2022). Selecting and prioritising contents in working and long-term memory guides recall and perception. *Poster Presentation at 2022 Neurobiology of Cognition Gordon Research Conference*, Maine, United States.

Gong, D., & Sun, P. (June 2020). Spatial Heterogeneity for Attentional Capture Susceptibility. *Poster Presentation at Vision*

Sciences Society Annual Meeting. Virtual.

Gong, D., & Theeuwes, J. (May 2020). Saliency-Dependent Distractor Suppression at One Specific Location and the Underlying Neural Mechanisms. *Poster Presentation at Cognitive Neuroscience Society Annual Meeting.* Virtual.

Gong, D., & Sun, P. (November 2019). The Effect of Distractor Saliency on Attentional Capture. *Poster Presentation at Psychonomic Society Annual Meeting,* Montréal, Canada.

GRANTS, HONORS, SCHOLARSHIPS & AWARDS

Induction into Sigma Xi, The Scientific Research Honor Society	2025
GSA Conference Travel Fellowship, Yale University	2024
AAAI Student Scholarship and Volunteer Award	2023
Award Winner in Oxford-MRC DTP Supplementary Funding Competition ($12,600)	2022
New College Sporting and Cultural Award, University of Oxford	2022
New College Travel Grant for GRC Neurobiology of Cognition, University of Oxford	2022
Clarendon Scholarship, University of Oxford	2021
Medical Research Council Studentship, University of Oxford and UK Medical Research Council	2021
New College-Yeotown Scholarship, University of Oxford	2021
Gates Cambridge Scholarship, University of Cambridge (declined)	2021
Outstanding Undergraduate Thesis Award, Tsinghua University	2021
Valedictorian, Tsinghua University	2021
Provincial Outstanding Graduate, Beijing Municipal Commission of Education	2021
Future Scholar Grant for Undergraduate Research, Tsinghua University ($28,000)	2020 – 2021
Tsinghua Presidential Award, Tsinghua University	2020
Awarded to 10 among over 3,700 students of the Class of 2021.	
Grant for Undergraduate Overseas Studies, Tsinghua University ($3,700)	2020
China National Scholarship	2020
Scholarship for Excellence in Scientific Innovation, Tsinghua University	2020
First Prize in 38th Challenge Cup for Scientific Research, Tsinghua University	2020
Academic Rising Star, 2020 Undergraduates Psychology Forum, Peking University	2020
Excellent Oral Presentation Award in 2019 Tsinghua Student Research Conference	2019
Excellent Poster Presentation Award in 2019 Tsinghua Student Research Conference	2019
Grant for Undergraduate Overseas Studies, Tsinghua University ($4,500)	2019
Second Prize (in Beijing Division) in 2019 China Undergraduate Mathematical Contest in Modeling	2019
Scholarship for All-Round Excellence, Tsinghua University	2019
Scholarship for Academic Excellence, Tsinghua University	2019
Member of “Spark” Innovation Program for Scientific Research, Tsinghua University	2019
Research Grant for Student-Initiated Project, Tsinghua University ($9,000)	2018 – 2019
China National Scholarship	2018

TECHNICAL SKILLS

- Programming: Python, MATLAB, R, JavaScript, LaTeX, HTML, C, C++
- Deep learning: PyTorch
- Neuroimaging data analysis: FSL
- EEG data analysis: MNE-Python
- Eye-tracking data analysis

TEACHING EXPERIENCE

Teaching fellow for CGSC 1100: *Introduction to Cognitive Science*, Yale University	Fall 2025
Teaching fellow for CGSC 338: *Minds, Brains, and Machines*, Yale University	Fall 2024
Teaching fellow for NSCI 160: *The Human Brain*, Yale University	Fall 2024

Tutor for *Cognition* course, University of Oxford Michaelmas Term 2022

- Tutored undergraduate students from Somerville College, St Catherine's College, and Worcester College
- Taught 12 tutorials on attention, memory, and learning

Teaching Assistant for the *Perception Science Program*, UC Berkeley Summer 2019

- Tutored high school students in experimental design and MATLAB programming.

ACADEMIC SERVICE

- Program Committee, AAAI-26
- Reviewer, ICLR 2025 Workshop on Representational Alignment
- Reviewer, NeurIPS 2024 Workshop on Behavioral Machine Learning
- Reviewer, ICML 2024 Workshop on LLMs and Cognition
- Reviewer, *Scientific Reports*, Journal by Springer Nature
- Reviewer, *Robotics and Computer-Integrated Manufacturing*, Journal by Elsevier

LEADERSHIP AND OUTREACH

- **Organizer and moderator for the Panel Discussion on "The Present and Future of Artificial Intelligence" at 2025 Yale US-China Forum**
  Dec 2024 - Apr 2025
- **Committee Member of Neuroscience Area Colloquium, Department of Psychology, Yale University**
  Jun 2024 - Jan 2025
- **AAAI-24 Student Volunteer**
  Feb 2024
- **Committee Member of UK Tsinghua Association**
  Jan 2022 - Aug 2023
- **Lecturer at "The Road to Academia" Studio, Tsinghua University**
  May 2021 - Jun 2022
- **President of Student Association for Science and Technology, School of Social Sciences, Tsinghua University**
  May 2020 - May 2021
- **Member of Undergraduate Curriculum Advisory Committee, Tsinghua University**
  Mar 2020 - Sep 2020
- **Coordinator of the Love for Our Alma Mater Volunteer Activity, Tsinghua University**
  Dec 2017 - Apr 2018