Yuchao Wang

Education

2021-2024 MGH Institute of Health Professions, Doctor of Physical Therapy student.

2016-2019 Haverford College, B.A. in Cognitive Science (summa cum laude), GPA: 3.98/4.0.

Thesis: Neural Correlates of Aesthetic Engagement with Literature Cross-registered at University of Pennsylvania & Swarthmore College

Work Experience

2021/9- Graduate Assistant, MGH INSTITUTE OF HEALTH PROFESSIONS.

Present Brain Recovery Lab

Advisor: Teresa Jacobson Kimberley, Ph.D., PT

• Investigating the neurophysiology of focal dystonia and stroke using TMS and fMRI for disease mechanisms and potential treatments.

2020/2- Research Specialist, University of Pennsylvania.

2021/4 Laboratory for Cognition and Neural Stimulation

Advisors: H. Branch Coslett M.D., Roy Hamilton M.D.

- o Managed clinical trials for stroke and Alzheimer's disease patients and administering TMS treatments.
- o Examined motor and semantic systems with clinical implications in ongoing research projects.
- 2019/5- Research Student (Thesis), UNIVERSITY OF PENNSYLVANIA.
- 2019/12 Penn Center for Neuroaesthetics

Advisors: Anjan Chatterjee M.D., Franziska Hartung Ph.D.

- o Investigated Dutch literary stories to explore the neural systems supporting aesthetic feelings.
- Designed surveys and built pipelines in R and MATLAB to analyze behavioral and 3T fMRI data.
- 2018/5- Research Assistant, HAVERFORD COLLEGE.
- 2018/8 Biophysics Lab

Advisor: Suzanne Amador Kane Ph.D.

- o Analyzed how peacock feathers may serve as camouflage against predators and a signal for other peafowl.
- o Performed reflectance spectroscopy, multispectral imaging, and granularity analysis.
- 2017/5- Summer Intern, HAVERFORD COLLEGE.
- 2017/8 Quaker & Special Collections
 - Transcribed and encoded documents (120,000+ words) related to Quaker missionaries' visit to Seneca Nations in 1798 into TEI format for a research database.

Publications

- o Hartung, F.*, **Wang, Y.***, Mak, M., Willems, R., Chatterjee, A. (2021). Aesthetic appraisals of literary style and emotional intensity in narrative engagement are neurally dissociable. *Communications Biology*.
 - Paper | Data&Code | Talk *co-first author
- o Kane, S. A., **Wang, Y.**, Fang, R., Lu, Y., Dakin, R. (2019). How conspicuous are peacock eyespots and other colorful feathers in the eyes of mammalian predators? *PLOS ONE*.
 - Paper | Media coverage: Discovery Canada, Haverford College

Under review

o Coslett, H.B., Medina, J., Kliot, D., **Wang, Y.**, Burkey, A. Can they touch? A Novel Mental Motor Imagery Task for the Assessment of Back Pain.

OTHER

- Wang, Y. (2018) Starting From the Title: Translating a Captured Ruler and His Captivating Ci.
 DoubleSpeak Magazine
- Wang, Y. (2017) Self-Formation: A Philosophical Perspective on the Reconciliation Process at Peace Museums in Japan and China. Center for Policy Research and International Studies, Universiti Sains Malaysia

Conference Presentations

- 2020/10 Wang, Y., Harvey, D.Y., Vnenchak, L., Cason, S., Sacchetti, D., Hamilton, R., Coslett, H.B. Combined rTMS and constraint induced language therapy reveals interactions between language and motor systems: A case study. Annual Meeting of the Society for the Neurobiology of Language, Online.
- 2020/5 **Wang, Y.**, Hartung, F., Marloes, M., Willems, R., Chatterjee, A. Neural Correlates of Aesthetic Engagement with Literature. Annual Meeting of the Cognitive Neuroscience Society, Online. *Selected for Data Blitz* (4.6%)
- 2020/1 Kane, S. A., **Wang, Y.**, Fang, R., Lu, Y., Dakin, R. How conspicuous are peacock eyespots and other colorful feathers in the eyes of mammalian predators? Annual Meeting of the Society for Integrative and Comparative Biology, Austin, TX, USA.
- 2019/9 Kane, S. A., **Wang, Y.**, Fang, R., Lu, Y., Dakin, R. Are Colorful Feathers Sexy yet Dangerous? Start Talking Science, Philadelphia, PA, USA.
- 2019/9 Wang, Y., Hartung, F., Chatterjee, A. To Each Their Own? Empirical Evidence for Emotional Arousal and Literariness during Literature Engagement. 15th Annual Undergraduate Science Research Symposium, Haverford, PA, USA.
- 2018/9 Kane, S. A., **Wang, Y.**, Fang, R., Lu, Y., Dakin, R. Peacock Feathers: A Survival Risk or Camouflage? 14th Annual Undergraduate Science Research Symposium, Haverford, PA, USA.
- 2017/8 **Wang, Y.** Self-Formation: A Philosophical Perspective on the Reconciliation Process at Peace Museums in Japan and China. Asia-Pacific Peace Research Association Conference, Penang, Malaysia.
- 2017/4 Yang, S., **Wang, Y.** The Diaries of John Rabe Witnessing the Nanjing Massacre. 9th International Conference of Museums for Peace, Belfast, Northern Ireland.

Awards

- 2021-2023 MGH Institute Scholarship (\$74,000), MGH INSTITUTE OF HEALTH PROFESSIONS
 - 2020 Summa cum laude, HAVERFORD COLLEGE
 - 2019 Phi Beta Kappa, HAVERFORD COLLEGE
 - 2019 KINSC Summer Scholar (\$3,700), HAVERFORD COLLEGE
 - 2018 SAMSI Undergraduate Workshop on Precision Medicine (~\$1,000), STATISTICAL AND APPLIED MATHEMATICAL SCIENCES INSTITUTE
 - 2017 CPGC Conference Fund (\$1,611), HAVERFORD COLLEGE
- 2012-2015 SM1 Scholarship (4-year tuition and living expenses), MINISTRY OF EDUCATION, SINGAPORE

Professional Activities

2020-2021 Member.

- Society for the Neurobiology of Language
- Cognitive Neuroscience Society
- 2019 **Student Representative**, Search Committee in Athletics Department, HAVERFORD COLLEGE.
 - o Conducted phone and in-person interviews for 21 shortlisted candidates for Fitness Center Director/Head Strength & Conditioning Coach, and provided valuable feedback from a non-athlete student's perspective.
- 2018-2019 **Co-President**, Pre-Health Society, HAVERFORD COLLEGE.
 - o Organized workshops, information sessions, and field trips helping over 100 students find their niche in health-related fields.

Skills

Technical Data analysis, TMS, rs/fMRI (SPM, Freesurfer), EEG, Qualtrics, REDCap, ImageJ, Git, LATEX Language English, Chinese, Latin(basic) | R, MATLAB, Python, Shell script