

Linfeng Han

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EDUCATION

Tsinghua University | Beijing, China

Aug 2016 – Jul 2020

Bachelor of Science in Psychology Minor in English (GPA: 3.85)

- GPA: 3.84, GPA rank: 1/35 (major: 3.97, rank: 1/35)
- Core Courses: Statistics for Psychology (A+), Neuroimaging Data Analysis (A), Linear Algebra (A), Probability and Statistics (A), Engineering Psychology (A+), Experimental Psychology (A), Research Methods in Psychology (A), Health Psychology (A+), General Psychology (A), Physiological Psychology (A)

PUBLICATIONS

Han, L.*, Yamanashi Leib, A.*, Chen, Z., & Whitney, D. (in prep). Holistic Ensemble Perception. (*equal contribution)
Yang, T., Yang, Z, Xu, G., ... **Han, L.**, ... Banissy, M., Sun, P. (submitted). Tsinghua Facial Expression Database - A Database of Facial Expressions in Chinese Young and Older Women and Men: Development and Validation.

POSTER PRESENTATIONS

Han, L., Cohen, M. S., He, L., Green, L. M., Castel, A. D., Knowlton, B. J., Rissman, J. Effects of Transcranial Direct Current Stimulation of Ventrolateral Prefrontal Cortex on Value-Based Memory Encoding. *Poster abstract submitted to the 2020 Annual Meeting of Cognitive Neuroscience Society, Boston, Massachusetts.*

Han, L., Yamanashi Leib, A., Budish, D., & Whitney, D (May 2019). Holistic Ensemble Perception. *Poster Presentation at the 2019 Annual Meeting of the Vision Sciences Society, St. Pete Beach, Florida.*

Han, L., Zhang, D., & Sun, P. (November 2018). Measures of the Emotional State of Being Moved. *Poster Presentation at the 2018 Annual Meeting of the Psychonomic Society, New Orleans, Louisiana.*

SELECTED RESEARCH EXPERIENCE

Effects of Direct Current Stimulation of Ventrolateral Prefrontal Cortex on Value-Incentivized Modulation of Memory Encoding | Project Leader | University of California, Los Angeles

Jul 2019 – Present

Advisor: Prof. Jesse Rissman, Psychology Department

- Previous findings revealed that value-based modulation of memory encoding involves strategic engagement of left-lateralized fronto-temporal semantic processing regions (e.g., left VLPFC) in young and older adults.
- Examined the effects of high-definition transcranial direct current stimulation (HD-tDCS) of VLPFC on implementing selective encoding strategies. Results indicated that anodal stimulation of left VLPFC significantly increased participants' selectivity towards high-value words, compared to anodal stimulation of right VLPFC or sham stimulation.
- Designed and programmed two experiments (MATLAB Psychophysics Toolbox), collected and analyzed data from over 30 participants (MATLAB ROC Toolbox).
- Trained and supervised seven undergraduate research assistants on ethical principles, tDCS device operations, verbal instructions delivery, and data collection and analysis.
- Submitted as a poster to the 2020 annual meeting of the Cognitive Neuroscience Society.

Within-Trial Priming Paradigm in Episodic Retrieval | RA | Washington University in St. Louis

Aug 2018 - Present

Advisor: Prof. David Balota, Department of Psychological and Brain Sciences

- Developed a novel within-trial priming paradigm to investigate how activated memory influences conscious recollection in episodic memory.
- Replicated findings that near-threshold priming produced benefits in immediate recall but costs in delayed recall and recognition (long-term memory), which is consistent with the desirable difficulty framework.
- Designed and programmed two experiments, collected data from over 40 participants, developed several MATLAB functions and toolkits, and analyzed data with MATLAB.

Advisor: Prof. David Whitney and Dr. Allison Yamanashi Leib, Psychology Department

- Studied ensemble perception, which is a critical perceptual approach through which observers extract summary statistical information when briefly viewing multiple objects.
- Investigated whether ensemble perception can operate on holistic representations (high-level visual information) by using Mooney faces as visual stimuli, which minimize feature-based processing.
- Discovered that observers could evaluate the average emotional valence of Mooney faces that were displayed simultaneously or in RSVP streams, and such ensemble percepts were impaired by face inversion, especially when holistic information was isolated. This provides strong evidence that ensemble perception can operate selectively on holistic representations of human faces.
- Designed and programmed nine experiments, collected data from 80 participants, and analyzed data (MATLAB, SPSS).
- Co-wrote the manuscript and plan to submit it to *Attention, Perception, & Psychophysics* as joint-first author.

TECHNICAL & LANGUAGE SKILLS

- Computer & programming skills: proficient in MATLAB (including toolkits: Psychtoolbox, SPM, Fieldtrip, RSA, Palamedes, ROC), SPSS, and E-prime; progressing in Python and R; finished courses *Programming Fundamentals (C Language)*, *Discrete Mathematics for Computer Science*, *MATLAB and Its Applications in Psychology*.
- Statistics & data science: proficient in univariate statistical analysis (t-test, ANOVA), multivariate statistical analysis (MANOVA, PCA, factor analysis, MDS, CCA, linear regression, cluster analysis, discrimination analysis); proficient in conducting all the analyses above with MATLAB or SPSS.
- Language skills: Mandarin (native), English (TOEFL: 117 – R: 30, L: 29, S: 29, W: 29; GRE – V: 155, Q: 170, AW: 4.5).

NEUROIMAGING TRAINING

- fMRI: proficient in fMRI data analysis with MATLAB SPM Toolbox (GUI and scripting); over 20 hours of fMRI session observations and operations; experienced in representational similarity analysis.
- EEG: proficient in ERP and time-frequency analysis with MATLAB Fieldtrip Toolbox; conducted an independent project examining the approach-avoidance tendency of the emotional state of being moved by analyzing frontal alpha asymmetry.

GRANTS, AWARDS, & FELLOWSHIPS

- **Tsinghua University Initiative Scientific Research Grant (Project Leader). Budget: \$28,000.00** 2019 – 2020
- **Tsinghua University Initiative Scientific Research Grant (Project Leader). Budget: \$7,250.00** 2017 – 2018
- “Top Open” Grant for Overseas Academic Training. Budget: \$4,400.00 2019
- “Top Open” Grant for Overseas Academic Training. Budget: \$4,400.00 2018
- Chinese National Scholarship for Academic Excellence (rank #1) 2018
- Member of the Spark Innovation Program for Academic Research, Tsinghua University 2018
- Third Prize, Challenge Cup for Scientific Research, Tsinghua University 2018
- Scholarship for Academic Excellence (top 20%) 2017
- Third Prize, Competition of Social Event Investigation, Tsinghua University 2017

TEACHING EXPERIENCE

Teaching Assistant to undergraduate course *Research Methods in Psychology*

Fall 2018 – 2019 & 2019 – 2020

- Prepared course materials, quizzes, and exams.
- Led discussion sections, and reviewed and graded assignments, exams and the final project.

Teaching Assistant at the *Perception Science Program*, University of California, Berkeley

Summer 2018

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