Zekun Sun

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Education

Ph.D. Psychological and Brain Sciences — **Johns Hopkins**
Advised by Chaz Firestone — 2019–2022(expected)

- Thesis: "Cognitive consequences of visual complexity" (in-progress)

M.A. Psychological and Brain Sciences — **Johns Hopkins**
Advised by Chaz Firestone — 2017–2019

M.S. Cognitive Neuroscience — **Chinese Academy of Sciences**
Advised by Jin-yan Wang — 2013–2016

- Thesis: "Investigation of Pain-related attentional bias and its regulations"

LL.B International Politics — **Nanjing University**
2009–2013

Publications

- **Sun, Z.**, Firestone, C. (in press). Speaking and seeing: How verbal "description length" encodes visual complexity. *Journal of Experimental Psychology: General.*
- **Sun, Z.**, Firestone, C. (2021). Curious objects: How visual complexity guides attention and engagement. *Cognitive Science*, 45(4), e12933.
- **Sun, Z.**, Firestone, C. (2020). Optimism and pessimism in the predictive brain. *Trends in Cognitive Sciences*, 24, 683-685.
- **Sun, Z.**, Firestone, C. (2020). The dark room problem. *Trends in Cognitive Sciences*, 24, 346-348.
- Fan, L., Sun, Y. B., **Sun, Z.K.**, Wang, N., Luo, F., Yu, F., Wang, J. Y. (2018). Modulation of auditory sensory memory by chronic clinical pain and acute experimental pain: a mismatch negativity study. *Scientific Reports*, 8(1), 1-13.
- **Sun, Z.K.**, Wang, J.-Y. and Luo, F. (2016). Experimental Pain Induces Attentional Bias That Is Modified by Enhanced Motivation: An Eye Tracking Study. *European Journal of Pain*, 20(8), 1266-1277.

Manuscripts in preparation

- **Sun, Z.**, Firestone, C.. The simple and the beautiful: An aesthetic preference for medially complex stimuli.
- **Sun, Z.**, Firestone, C.. The evolution of complexity in visual memory.
- **Sun, Z.**, Yu, Q. Not too simple, not too complex: The Goldilocks principle drives visual attention and memory.
- **Sun, Z.**, Firestone, C.. Cognitive consequences of visual complexity.

Presentations

- Sun, Z., Han. S., & Firestone, C. (May 2021). The evolution of complexity in visual memory. **Talk** given at the 21th annual meeting of the Vision Sciences Society, Online
- Sun, Z., & Firestone, C. (June 2020). The simple and the beautiful: An aesthetic preference for medially complex stimuli. **Poster** given at the 20th annual meeting of the Vision Sciences Society, Online
- Halberda, J., Yu, Q., Sun, Z., & Firestone, C. (June 2020). Not too simple, not too complex: The Goldilocks principle drives discrimination and search. **Poster** presented at the 20th Annual Meeting of the Vision Sciences Society, Online
- Sun, Z., & Firestone, C. (November 2019). Speaking about seeing: How verbal descriptions encode visual complexity. **Talk** given at the 27th annual meeting of Object Perception, Attention, Memory (OPAM), Montreal, Canada.
  — Award of Best Talk
- Sun, Z., & Firestone, C. (November 2019). Speaking about seeing: How verbal descriptions encode visual complexity. **Poster** presented at the 19th Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL.
  — Travel Award
- Sun, Z., & Firestone, C. (May 2018). Curious objects: Preattentive processing of object complexity. **Talk** given at the 18th annual meeting of the Vision Sciences Society, St. Pete Beach, FL.

Honors and Awards

- **Clark Collaborative Award** 2021
  - Award to students who initiate cross-lab collaborative projects
    The complexity of coding, Johns Hopkins
- **The Mary Ainsworth Award** 2021
  - Annual award to an outstanding female student, Johns Hopkins
- **The Robert S. Waldrop Junior Investigator's Award** 2019
  - Annual award to a graduate student who has demonstrated
    exceptional scholarly progress in pre-dissertation graduate research, Johns Hopkins
- **Best Talk Award** 2019
  - Talk given at the annual meeting of Object Perception, Attention, and Memory, Montreal
- **VSS Student Travel Award** 2019
- **Collaborative Research Award** 2018
  - Department award to support a project of Goldilocks principle in memory, Johns Hopkins
- **Graduate Student Award** 2015; 2016
  - Chinese Academy of Sciences

Teaching

- **Real World Human Data (TA)** Spring 2020
  Johns Hopkins University
- **Methods in Experimental Psychology (TA)** Fall 2019
  Johns Hopkins University
- **Introduction to Cognitive Psychology (TA)** Spring 2019
  Johns Hopkins University
- **Introduction to Social Psychology (TA)** Fall 2018
  Johns Hopkins University

Skills

- **Programming**
  Python, JavaScript, Matlab, R
- **Analysis**
  behavioral data, eye tracking data, fMRI data

Training

- **Summer School**
  Neuromatch Academy - Computational Neuroscience (Interactive track)

Service

Early Career Colloquium Selection Committee Johns Hopkins
Student organizer Fall 2020

Summer Internship Program Johns Hopkins
Mentor, Vision Group Summer 2019

- Project: Shape bias and complexity bias
- Mentee: Subin Han, Cognitive Science Department, JHU

Department Colloquium Committee Johns Hopkins
Student organizer Fall 2019