

## EDUCATION

---

### Ph.D. Psychological and Brain Sciences

Advised by Chaz Firestone

**Johns Hopkins**

2019–2022(expected)

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

### M.A. Psychological and Brain Sciences

Advised by Chaz Firestone

**Johns Hopkins**

2017–2019

### M.S. Cognitive Neuroscience

Advised by Jin-yan Wang

**Chinese Academy of Sciences**

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. (invited for revision). The simple and the beautiful: An aesthetic preference for medially complex stimuli.
- **Sun, Z.**, Firestone, C. (2021). 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 evolution of complexity in visual memory.
- **Sun, Z.**, Yu, Q. Looking Unique.
- **Sun, Z.**, Firestone, C.. Cognitive consequences of visual complexity.

## HONORS AND AWARDS

---

- **G. Stanley Hall's Scholar Award** 2022
  - Annual award to a graduate student who has demonstrated exceptional scholarly progress in dissertation research, Johns Hopkins
- **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
- **OPAM Best Talk Award** 2019
  - Talk given at the annual meeting of Object Perception, Attention, and Memory, Montreal
- **Elsevier/Vision Research Travel Award** 2019
  - The 19th annual meeting of Vision Science Society, St. Pete Beach, FL
- **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

## PRESENTATIONS

---

- Sun, Z., Yu, Q., & Firestone, C. (May 2022). How to look unique. **Poster** presented at the 22nd Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL.
- Hafri, A., Sun, Z., & Firestone, C. (May 2022). Sequential construction of visual relations. **Poster** presented at the 22nd Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL.
- Sun, Z., & Firestone, C. (November 2021). The evolution of complexity in visual memory. **Poster** presented at the 29th annual meeting for Object Perception, Attention, and Memory, Online.
- Yu, Q., & Sun, Z. (November 2021). Looking Unique. **Talk** given at the 29th annual meeting for Object Perception, Attention, and Memory, Online.
- 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, and Memory, Montreal, Canada.  
— **Award of Best Talk**

- Sun, Z., & Firestone, C. (May 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.

## TEACHING

- |  |             |
|--|-------------|
| <ul style="list-style-type: none"> <li>• <b>Real World Human Data (TA)</b><br/><i>Johns Hopkins University</i></li> </ul>                | Spring 2020 |
| <ul style="list-style-type: none"> <li>• <b>Methods in Experimental Psychology (TA)</b><br/><i>Johns Hopkins University</i></li> </ul>   | Fall 2019   |
| <ul style="list-style-type: none"> <li>• <b>Introduction to Cognitive Psychology (TA)</b><br/><i>Johns Hopkins University</i></li> </ul> | Spring 2019 |
| <ul style="list-style-type: none"> <li>• <b>Introduction to Social Psychology (TA)</b><br/><i>Johns Hopkins University</i></li> </ul>    | Fall 2018   |

## SKILLS

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

## TRAINING

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

## SERVICE

- |  |                              |
|--|------------------------------|
| <b>Early Career Colloquium Selection Committee</b><br>Student organizer  | Johns Hopkins<br>Fall 2020   |
| <b>Summer Internship Program</b><br>Mentor, Vision Group <ul style="list-style-type: none"> <li>– Project: Shape bias and complexity bias</li> <li>– Mentee: Subin Han, Cognitive Science Department, JHU</li> </ul> | Johns Hopkins<br>Summer 2019 |
| <b>Department Colloquium Committee</b><br>Student organizer  | Johns Hopkins<br>Fall 2019   |