# Bao Hong/洪宝

*09/2025*

paul_hhhh@163.com/bh2378@nyu.edu | (+86) 133-8627-7651 | bao-hong.github.io

## Education

09/2020 – 06/2026 Expected: *Ph.D.,* Cognitive Neuroscience, East China Normal University
Affiliated with NYU–ECNU Institute of Brain and Cognitive Science, NYU Shanghai
Advisor: Prof. Li Li (NYU Shanghai)

09/2018 – 06/2019 Minor in Computer Science and Technology, Nanchang University

09/2016 – 06/2020 *B.S.*, Applied Psychology, Nanchang University

## Research Experience

**Leading in projects:**

06/2024 Center bias in forward and backward heading perception

- This research aims to investigate the impact of the long-term experience of walking straight forward on bias in perceived heading direction.

01/2024 Temporal dynamics of judging heading and scene-relative object motion from optic flow

- This research aims to investigate how the precision of heading and scene-relative object motion judgments changes with optic flow duration, to reveal the temporal dynamics and relationship between the two processes.

10/2023 Temporal dynamics of serial effects in ocular tracking

- This research aims to investigate temporal dynamics of serial effects in ocular tracking and using a Bayesian observer model constrained by efficient coding to predict the changes in serial effects over time.

10/2023 Neural evidence of serial dependence in smooth pursuit eye movements

- This research aims to explore the corresponding neural evidence of serial dependence in smooth pursuit to see whether that evidence is consistent with behavioral performance.

09/2021 Serial dependence in smooth pursuit eye movements of preadolescent children and adults

- This research aims to explore whether ocular tracking exhibit any serial dependence and to investigate the developmental aspects of the serial dependence phenomenon.

**Major role in projects:**

07/2021 Measuring Visual Discomfort Associated with the Use of Head-Mounted Displays

- This research aims to examine and quantify how the viewing duration through a head mounted display (HMD) leads to visual discomfort. I contributed to programming, data collection and data analysis

09/2020 Brain maturation and the development of ocular tracking ability in children

- This research aims to examine the development of ocular tracking ability and the brain structural changes with age. I contributed to stimulus design and programming, data collection and data analysis.

## Publications

**Journal papers:**

- **Hong, B.** [+], Chen, J. [+], Huang, W., & Li, L.* (2024). Serial Dependence in Smooth Pursuit Eye Movements of Preadolescent Children and Adults. *Investigative Ophthalmology & Visual Science, 65(14),* 37-37. https://doi.org/10.1167/iovs.65.14.37 ;
  Media coverage: "How Do Our Eyes Help Us Navigate? New Study Looks at Clever Brain 'Shortcut'"
- **Hong, B.**, Zhang, L., & Sun, H.* (2019). Measurement of the Vertical Spatial Metaphor of Power Concepts Using the Implicit Relational Assessment Procedure. *Frontiers in Psychology*, *10*, 1422. https://doi.org/10.3389/fpsyg.2019.01422
- Fan, X. R., Wang, Y. S., ... **Hong, B.**, …& Zuo, X. N.* (2023). A longitudinal resource for population neuroscience of school-age children and adolescents in China. *Scientific data, 10(1),* 545. https://doi.org/10.1038/s41597-023-02377-8.

**Working papers:**

- **Hong, B.**, Zhou, Y., T., Ji, Y.L., & Li, L.* (In preparation). A Bayesian account of asymmetric center bias in forward and backward heading perception.
- **Hong, B.**, Chen J., & Li, L.* (In preparation). Neural evidence of serial dependence in ocular tracking.
- **Hong, B.**, Chen J., & Li, L.* (To be submitted). Temporal dynamics of serial effects in ocular tracking.
- Huang, W.J.[+], Chen J.[+], **Hong, B.**, Wang, Y., S., Zuo, X., N.*, & Li, L.* (To be submitted). Investigating Brain Structural Correlates of Ocular Tracking in Preadolescent Children and Young Adults.

**Published abstracts:**

- **Hong, B.**, Chen, J., & Li, L. (2024). Temporal dynamics of serial dependence in ocular tracking. Journal of Vision, 24(10), 373-373.
- **Hong, B.**, Huang, W.J., Li, Y. J., Chen, J., Li, L. (2023). Ocular tracking abilities in preadolescent children. Advances in Psychological Science, 31(suppl.), 144-144.
- Huang, W., **Hong, B.**, Wu, J.H., Chen, J., Li, L. (2023). Investigating Brain Structural Correlates of Ocular Tracking in Preadolescent Children and Young Adults. Advances in Psychological Science, 31(suppl.), 141-141.

## Conference Presentations

**Oral presentation**

- **Hong, B**., Zhou, Y., T., Ji, Y.L., & Li, L. (2025, June). Asymmetric center bias in heading judgments for forward and backward self-motion. Talk presented at the 2025 Annual Meeting of the General Psychology and Experimental Psychology of the Chinese Psychological Association, Chengdu, Sichuan, China.
- **Hong, B**., Chen, J., & Li, L. (2024, May). Temporal dynamics of serial dependence in ocular tracking. Talk presented at the 2024 Annual Meeting of the Vision Sciences Society (VSS2024), Florida, USA.
- **Hong, B**., Huang, W.J., Li, E., Chen, J., & Li, L. (2023, August). Ocular tracking abilities in preadolescent children. Talk presented at the 5th China Vision Science Conference (CVSC2023), Wenzhou, Zhejiang, China.

**Poster presentation**

- **Hong, B**., Chen, J., & Li, L. (2025, November). Neural evidence of serial dependence in ocular tracking. Poster presented at the 2025 Annual Meeting of Society for Neuroscience (Neuroscience 2025), San Diego, USA.
- **Hong, B**. (2024, December). Serial Dependence in Smooth Pursuit Eye Movements of Preadolescent Children and Adults. Poster presented at the Annual Academic Meeting of School of Psychology and Cognitive Science in East China Normal University, Shanghai, China. [Best Poster Award]
- **Hong, B**., Ji, Y.L., & Li, L. (2024, November). Effect of stimulus range on center bias in heading judgments from optic flow. Poster presented at the 6th China Vision Science Conference (CVSC2024), Guangzhou, Guangdong, China.
- **Hong, B**., Huang, W. J., Li, E., Chen, J., & Li, L. (2023, April). Ocular tracking abilities in preadolescent children. Poster presented the 2023 Annual Meeting of the General Psychology and Experimental Psychology of the Chinese Psychological Association, Jinhua, Zhejiang, China.
- Ji, Y.L., **Hong, B**., & Li, L. (2024, November). Temporal dynamics of judging heading and scene-relative object motion from optic flow. Poster presented at the 6th China Vision Science Conference (CVSC2024), Guangzhou, Guangdong, China.
- Huang, W. J., **Hong, B**., Chen, J., & Li, L. (2024, October). Brain Structural Correlates of Ocular Tracking in Preadolescent Children and Young Adults. Poster presented at the 2024 Annual Meeting of Society for Neuroscience (Neuroscience 2024), Chicago, USA.
- Huang, W. J., **Hong, B**., Wu, J. H., Chen, J., & Li, L. (2023, August). Investigating brain structural correlates of ocular tracking in preadolescent children and young adults. Poster presented at the 5th China Vision Science Conference (CVSC2023), Wenzhou, Zhejiang, China.

## Teaching Experience

01/2022 - 06/2022

Teaching Assistant, Perception and the Brain New York University Shanghai

## Service

*Ad Hoc Reviewer:* Psych Journal; Journal of Experimental Psychology: Human Perception and Performance; Neuroscience and Biobehavioral Reviews

## Academic Skills

*Data collection*: Psychophysics (MATLAB PsychToolBox), Virtual reality (Vizard, Unity), Eye-tracking (Eyelink, VIVE pro eye), MRI

*Data analysis*: MATLAB, python, R, JASP, SPSS

*Graphics*: MATLAB, python, R, Adobe Illustrator, Photoshop

## Honors

2024 Outstanding Presentation Awards (School of Psychology and Cognitive Science in ECNU)

2022 Excellence in Research Award (NYU-ECNU Joint Research Institutes and Graduate School of ECNU)

2019 Outstanding Graduates (Nanchang University)

2018 Merit Student (Nanchang University)