

# Hsing-Hao Lee Curriculum Vitae

## Contact Information

Department of Psychology, New York University

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## Education

- 2021 – Ph.D., Psychology (Cognition and Perception)  
Department of Psychology, New York University, USA  
Mentor: Dr. Marisa Carrasco
- 2017 – 2019 Master of Science, Psychology (GPA: 3.91/4.0)  
Department of Psychology, National Taiwan University, Taiwan  
Mentor: Dr. Su-Ling Yeh
- 2013 – 2017 Bachelor of Science, Psychology (GPA: 3.94/4.0)  
Department of Psychology, National Cheng Kung University, Taiwan  
Mentor: Dr. Shulan Hsieh

## Research Interests

1. **Attention:** How does visual attention interact with perception?
2. **Consciousness:** How do the conscious and unconscious mental processes work?
3. **Cognitive control:** How do people inhibit irrelevant information and do motor control?

## Publications

1. Lee, H. H., Fernández, A., & Carrasco, M. (*preprint*). Adaptation and exogenous attention interact in the early visual cortex: A TMS study
2. Lee, H. H., Groves, K., Ripollés, P., & Carrasco, M. (*under review*). Audiovisual integration in the McGurk effect is impervious to music training.
3. Lee, H. H., Liu, G. K., Chen, Y. C., & Yeh, S. L. (*under review*). Quantifying metacognition of emotion.
4. Chen, Y. T., Lee, H. H., Shih, C. Y., Chen, Z. L., Beh, W. K., Yeh, S. L., & Wu, A. Y. (2022). An effective entropy-assisted mind-wandering detection system with EEG signals of MM-SART Database. *IEEE Journal of Biomedical and Health Informatics*, 26(8), 3649-3660.
5. Lee, H. H., Chien, S. E., Lin, V., & Yeh, S. L. (2022). Seeing food fast and slow: Arousing pictures and words have reverse priorities in assessing awareness. *Cognition*, 225, 105144.
6. Lee, H. H., Chen, Z. L., Yeh, S. L., Hsiao, J. H., & Wu, A. Y. (2021). When eyes wander around: Mind-wandering as revealed by eye movement analysis with hidden Markov models. *Sensors*, 21, 7569.

7. **Lee, H. H.**, Tu, Y. C., & Yeh, S. L. (2021) In search of blue-light effects on cognitive control. *Scientific Reports*, 11, 15505.
8. **Lee, H. H.**, & Yeh, S. L. (2021). Blue-light effects on saccadic eye movements and attentional disengagement. *Attention, Perception, & Psychophysics*. 83, 1713-1728.
9. Chien, S. E., Chu, L., **Lee, H. H.**, Yang, C. C., Lin, F. H., Yang, P. L., Wang, T. M., & Yeh, S. L. (2019). Age difference in perceived ease of use, curiosity, and implicit negative attitude toward robots. *ACM Transactions on Human-Robot Interaction (THRI)*, 8(2):9.
10. **Lee, H. H.**, & Hsieh, S. (2017). Resting-state fMRI associated with stop-signal task performance in healthy middle-aged and elderly people. *Frontiers in Psychology*, 8:766.

### **Manuscripts in preparation**

1. **Lee, H. H.**, Kao, Y. W., Goh, J. O. S., & Yeh, S. L. (*in preparation*). Age differences in neural processing of facial expression predictions.
2. Cheng, T., Chiu, L., Hunag, L., Lin, Y. T., **Lee, H. H.**, Chen, Y. C., & Yeh, S. L. (*in preparation*). Predictive processing in the second brain: From gut complex to meta-awareness.
3. Li, S. H., **Lee, H. H.**, Kao, Y. W., Goh, J. O. S., Jingling, L., Tsai, A. C. H., & Yeh, S. L. (*in preparation*). Age differences in processing representational momentum for motion sequences as revealed by fMRI.

### **Selected Conference Presentations**

1. **Lee, H. H.**, Fernández, A., & Carrasco, M. (2023). *Adaptation modulates the effect of covert exogenous attention in early visual cortex – A TMS study*. Poster presented at the Annual Meeting of the Vision Sciences Society, Tampa, FL.
2. **Lee, H. H.**, Liu, G. K., & Yeh, S. L. (2021) *I know I'm happy, and I'm right: Metacognition of emotion*. Poster presented at the Annual Meeting of European Conference on Visual Perception, Virtual Meeting.
3. Cheng, T., Chiu, L., Huang, L. T., Lin, Y. T., Chen, Y. C., **Lee, H. H.**, & Yeh, S. L. (2021) *Metacognitive architecture: Perception, interoception, and beyond*. Poster presented at the Conference of Metacognition: New developments and challenges, Virtual Meeting.
4. **Lee, H. H.**, Chien, S. E., Lin, V., & Yeh, S. L. (2021). *Which comes first? Examining breaking continuous flash suppression time of high-calorie and low-calorie foods*. Poster presented at the Annual Meeting of the Vision Sciences Society, Virtual meeting.
5. Chen, Z. L., **Lee, H. H.**, Chen, Y. T., Wu, A. Y., & Yeh, S. L. (2021). *The mind's eye: Mind-wandering revealed by eye movement hidden Markov model*. Poster presented at the Annual Meeting of the Vision Sciences Society, Virtual meeting.
6. Kao, Y. W., **Lee, H. H.**, Goh, J. O. S., & Yeh, S. L. (2020). *Age-related differences in the statistical regularity of emotional faces*. Poster presented at the Annual Meeting of the Cognitive Neuroscience Society, Virtual meeting.

7. **Lee, H. H.**, Shih, C. Y., Chen, Z. L., Wu, A. Y., & Yeh, S. L. (2019). *Are you concentrating or mind-wandering? Electroencephalogram signals reveal differences in attentional states*. Poster presented at the Annual Meeting of the Society for Neuroscience, Chicago, IL.
8. **Lee, H. H.** & Yeh, S. L. (2019). *Blue-light effects on the gap effect*. Poster presented at the Annual Meeting of the Vision Sciences Society, Tampa, FL.
9. **Lee, H. H.**, Chen, Z. L., Chen, Y. T., Shih, C. Y., Beh, W. K., Wu, A. Y., & Yeh, S. L. (2019). *The heart never lies: Heart rate variability as an index of sustained attention*. Poster presented at the National Taiwan University-Kyoto University International Symposium for Cognitive Neuroscience, Taipei, Taiwan.
10. **Lee, H. H.**, Lin, F. H., Chien, S. E., & Yeh, S. L. (2018). *Food information processed unconsciously under continuous flash suppression*. Oral presentation at the Joint Conference of National Taiwan University, Peking University, and Chinese University of Hong Kong, Hong Kong.
11. **Lee, H. H.** & Hsieh S. (2017). *The aging effect on time perception: An ERP study*. Poster presented at the 13th Asia Pacific Conference on Vision, Tainan, Taiwan.
12. **Lee, H. H.** & Hsieh S. (2016). *The relation between resting-state fMRI and stop-signal task performance in healthy middle-aged and elderly people*. Poster presented at the 55th Annual Taiwan Psychology Association Meeting, Tainan, Taiwan.

## Research Experience

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|-------------|--|
| 2021 –      | <p><b>Graduate Student in Carrasco Lab</b><br/>         Department of Psychology, New York University<br/>         Principal Investigator: Dr. Marisa Carrasco<br/> <i>Duties:</i> Designed, collected and analyzed psychophysics and TMS experiments</p>  |
| 2017 – 2021 | <p><b>Graduate Student and Research Assistant in EPA (Explorer of Perception and Attention) Lab</b><br/>         Department of Psychology, National Taiwan University<br/>         Principal Investigator: Dr. Su-Ling Yeh<br/> <i>Duties:</i> Designed, collected and analyzed eye-tracking, fMRI, EEG, and behavioral experiments. Cooperated with Graduate Institute of Electronics Engineering, gave consulting advice on testing and interpreting machine learning models</p> |
| 2016 – 2017 | <p><b>Research Assistant in CASE (Control, Aging, Sleep, and Emotion) Lab</b><br/>         Department of Psychology, National Cheng Kung University<br/>         Principal Investigator: Dr. Shulan Hsieh<br/> <i>Duties:</i> Collected and analyzed EEG, fMRI, and behavioral data from older adults</p>  |

## Awards and Honors

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|------|--|
| 2023 | <p><b>Graduate School of Arts and Science Dean's Conference Fund</b><br/>         Issued by New York University, USA<br/> <i>Vision Sciences Society, Florida, USA</i></p> |
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|-------------|---|
| 2021 – 2025 | <b>Taiwan's Government Fellowship for Studying Ph.D. Abroad</b><br>Issued by Ministry of Education, Taiwan<br><i>Area: Cognitive Neuroscience</i>   |
| 2019        | <b>College of Science Student Travel Award</b><br>Issued by National Taiwan University<br><i>Summer School Program at University of California, Berkeley, USA</i>                                       |
| 2019        | <b>Scholarships for Students Attending International Academic Conferences</b><br>Issued by Ministry of Science and Technology, Taiwan<br><i>Vision Sciences Society, Florida, USA</i>                   |
| 2017        | <b>Scholarships for Students Attending International Academic Conferences</b><br>Issued by National Cheng Kung University<br><i>Asia-Pacific Conference on Vision, Tainan, Taiwan</i>                   |
| 2016        | <b>College Student Research Scholarship</b><br>Issued by Ministry of Science and Technology, Taiwan   |
| 2013 – 2016 | <b>Academic Excellence Awards (awarded every school year)</b><br>Issued by Department of Psychology, National Cheng Kung University<br><i>Top 5% GPA among the school year in Psychology Department</i> |

## Teaching Experience

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|-------------|--------|--|
| 2023        | Fall   | TA for <i>Graduate Perception</i> , New York University                                |
| 2019        | Spring | TA for <i>Seminar in Graduate Institute of Psychology</i> , National Taiwan University |
| 2018        | Fall   | TA for <i>Introduction to Psychology</i> , National Taiwan University                  |
| 2017 – 2018 |        | TA for <i>Statistics in Psychology and Education</i> , National Taiwan University      |
| 2017        | Spring | TA for <i>Cognitive Psychology</i> , National Cheng Kung University                    |

## Graduate Course work

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|------|--------|---|
| 2023 | Fall   | Psychophysics                                       |
| 2023 | Spring | Computational Cognitive Modeling                    |
| 2023 | Spring | Learning and Memory                                 |
| 2022 | Fall   | Mathematical Tools for Simulation and Data Analysis |
| 2022 | Spring | Functional Magnetic Resonance Imaging (fMRI) Lab    |
| 2022 | Spring | Behavioral and Cognitive Neuroscience               |
| 2021 | Fall   | Perception  |
| 2021 | Fall   | Mathematical Tools for Neural and Cognitive Science |

## Ad-hoc Reviewer

*Frontiers in Psychology, Frontiers in Human Neuroscience, Scientific Reports*

## Technical Expertise

R, MATLAB, EEG (Neuroscan, EEGLAB), fMRI (SPM12), eye-tracker (EyeLink, Tobii), TMS (Brainsight), four-mirror stereoscope