

## Yueyuan (Mercury) ZHENG

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Updated on Oct 30, 2023

### EDUCATION

- 2024 (expected) Doctor of Philosophy (Ph.D.) in Cognitive Psychology  
University of Hong Kong (HKU), Hong Kong; Supervisor: Dr. Janet Hsiao
- 2021 Master of Philosophy (M.Phil.) in Cognitive Psychology  
University of Hong Kong, Hong Kong; Supervisor: Dr. Janet Hsiao
- 2018 Bachelor of Social Sciences (B.S.S.), major in Psychology  
University of Hong Kong, Hong Kong

### AWARDS AND HONORS

- |           |  |                                    |
|-----------|--|------------------------------------|
| 2023      | Erik Kvan Postgraduate Scholarship                         | HKU                                |
| 2022      | Student Award  | IEEE TCLT, 22 <sup>nd</sup> ICALT  |
| 2021      | Graduate Research Publication Award, 2 <sup>nd</sup> Prize | HKU Department of Psychology       |
| 2020      | Outstanding Oral Presentation Award                        | HKU Department of Psychology       |
| 2019      | Student Travel Award                                       | Cognitive Science Society          |
| 2019-2024 | Research Postgraduate Scholarship, in MPhil & PhD          | HKU                                |
| 2016-2017 | JASSO Scholarship  | Japan Student Service Organization |
| 2015      | Summer Enrichment Scholarship                              | HK Government                      |

### PEER-REVIEWED PUBLICATIONS

(\*: corresponding author, #: co-first authorship, -: representative papers)

1. **Zheng, Y.**, & Hsiao, J. H.\* (2023). Differential audiovisual information processing in emotion recognition: An Eye Tracking Study. *Emotion*, 23(4), 1028. (IF = 5.564, rank 7/91 in Psychology, Experimental)
2. Que, Y., **Zheng, Y.**, Hsiao, J. H., & Hu, X.\* (2023). Studying the effect of self-selected background music on reading task with eye movements. *Scientific Reports*, 13(1), 1704. (IF = 4.997, rank 19/74 in Multidisciplinary Sciences)
3. Hsiao, J. H.\*, An, J., Hui, V. K. S., **Zheng, Y.**, & Chan, A. B. (2022). Understanding the role of eye movement consistency in face recognition and autism through integrating deep neural networks and hidden Markov models. *npj Science of Learning*, 7(1), 1-13. (IF = 5.513, rank 8/91 in Psychology, Experimental; rank 21/270 in Education & Educational Research)
4. **Zheng, Y.**, Ye, X., & Hsiao, J. H.\* (2022). Does adding video and subtitles to an audio lesson facilitate its comprehension?. *Learning and Instruction*, 101542. (IF = 6.636, rank 13/332 in Developmental and Educational Psychology)
5. Luo, X., Gu, J., **Zheng, Y.**, & Zhou, X.\* (2022) Making a saccade enhances Stroop and Simon conflict control. *Attention, Perception, & Psychophysics*, 84(3), 795-814. (IF = 2.199, rank 57/77 in Psychology)
6. Hsiao, J. H.\*, Lan, H., **Zheng, Y.**, & Chan, A. B. (2021). Eye Movement analysis with Hidden Markov Models (EMHMM) with co-clustering. *Behavior Research Methods*, 1-14. <https://rdcu.be/cjLZJ> (IF = 6.242, rank 1/13 in Psychology, Mathematical; 5/91 in Psychology, Experimental)
7. Hsiao, J. H.\*, An, J., **Zheng, Y.**, & Chan, A. B. (2021). Do portrait artists have enhanced face processing abilities? Evidence from hidden Markov modeling of eye movements. *Cognition*, 211, 104616. (IF = 3.650, rank 18/91 in Psychology, Experimental)

8. Turbett, K.\*, Jeffery, L., Bell, J., Digges, A., **Zheng, Y.**, Hsiao, J. H., Palermo, R. (2021). Serial Dependence of Facial Identity for Own- and Other-Race Faces. *Quarterly Journal of Experimental Psychology*, 17470218211059430. (IF = 2.143, rank 55/77 in Psychology)

#### **Full-paper Publications in Peer-Reviewed Conference Proceedings**

9. **Zheng, Y.**, de la Harpe, S., Yang, A. Y., Hayward, W. G., Palermo, R., Hsiao, J. H. (2023). Cultural Differences in the Effect of Mask Use on Face and Facial Expression Recognition. *Proceedings of the 45th Annual Conference of the Cognitive Science Society*. Cognitive Science Society.
10. Qi, R., **Zheng, Y.**, Yang, Y., Zhang, J., & Hsiao, J. H. (2023). Individual differences in explanation strategies for image classification and implications for explainable AI. *Proceedings of the 45th Annual Conference of the Cognitive Science Society*. Cognitive Science Society.
11. **Zheng, Y.**, Que, Y., Hu, X., Hsiao, J. H. (2022). Predicting Reading Performance based on Eye Movement Analysis with Hidden Markov Models. *Proceedings of the 22<sup>nd</sup> IEEE International Conference on Advanced Learning Technologies (ICALT)*. **[Student Award] [Best Full Paper Award Nomination]**
12. Yang, Y., **Zheng, Y.**, Deng, D., Zhang, J., Huang, Y., Yang, Y., Hsiao, J. H., & Cao, C.\* (2022). HSI: Human Saliency Imitator for Benchmarking Saliency-based Model Explanations. *The Tenth AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*. (accept rate: 29.8%)
13. **Zheng, Y.**, Chen, D., Hu, X., Hsiao, J. H. (2022). The impact of mask use on social categorization. *Proceedings of the 44th Annual Conference of the Cognitive Science Society*, 2024-2630. Cognitive Science Society.
14. Qiu, L., Yang, Y., Cao, C. C., **Zheng, Y.**, Ngai, H. H. T., Hsiao, J. H., & Chen, L. (2022). Generating Perturbation-based Explanations with Robustness to Out-of-Distribution Data. *The ACM Web Conference 2022 (under Web4Good special track)* (accept rate: 24%).
15. **Zheng, Y.**, & Hsiao, J. H. (2020). Audiovisual Information Processing in Emotion Recognition: An Eye Tracking Study. In S. Denison., M. Mack, Y. Xu, & B.C. Armstrong (Eds.), *Proceedings of the 42nd Annual Conference of the Cognitive Science Society*, 2024-2630. Cognitive Science Society.
16. Que, Y., **Zheng, Y.**, Hsiao, J. H., Hu, X. (2020). Exploring the Effect of Personalized Background Music on Reading Comprehension. *Proceedings of the Jointed Conference on Digital Libraries (JCDL) 2020* (pp. 57–66). Association for Computing Machinery, New York, NY, USA. (accept rate: 31.1%)
17. **Zheng, Y.**, Ye, X., & Hsiao, J. H. (2019). Does video content facilitate or impair comprehension of documentaries? The effect of cognitive abilities and eye movement strategy. In A.K. Goel, C.M. Seifert, & C. Freksa (Eds.), *Proceedings of the 41st Annual Conference of the Cognitive Science Society*, 1283-1289. Montreal, QB: Cognitive Science Society. (accept rate: 25.3%) **[Student Travel Award]**

#### **Abstract Publications in Peer-Reviewed Conference Proceedings**

- C1. Hsiao, J., Chan, K. W. S., Chan, A., **Zheng, Y.**, Lau, K. M., Tsang, H. L. M. (2021). Eye movement consistency in global-local perceptual processing predicts schizotypy. *Proceedings of the 43rd Annual Conference of the Cognitive Science Society*, 3229. Montreal, QB: Cognitive Science Society.
- C2. Hui, T. K., Sit, H. F., Cheung, T. W., **Zheng, Y.**, Hsiao, J. H., Li, S. X. (2023). Mediating Effect of Pre-Sleep Arousals on the Association between Sleep-related Attentional Bias and Sleep Disturbances – An Eye-tracking Study. *Asian Society of Sleep Medicine (ASSM) 2023*. **[Young Investigator Award]**

#### **Preprints:**

- P1. Qiu, L., Yang, Y., Cao, C. C., Liu, J., **Zheng, Y.**, Ngai, H. H. T., Hsiao, J. H., & Chen, L. (2021). Resisting Out-of-Distribution Data Problem in Perturbation of XAI. <https://arxiv.org/abs/2107.14000>.
- P2. Qi, R.#, **Zheng, Y.#**, Yang, Y., Cao, C. C., & Hsiao, J. H. (2023). Explanation Strategies for Image Classification in Humans vs. Current Explainable AI. <https://arxiv.org/abs/2304.04448>.

#### **PRESENTATIONS/ TALKS**

### **Oral Presentations at International Conferences**

- Jul. 26<sup>th</sup>, 2019 *Does video content facilitate or impair comprehension of documentaries?* 41st Annual Conference of the Cognitive Science Society, Montreal, Canada. **[Student Travel Award Winner]**
- July 27<sup>th</sup>, 2021 *Eye movement consistency in global-local perceptual processing predicts schizotypy.* CogSci2021 Hong Kong Meetup & Symposium.
- July 3<sup>rd</sup>, 2022 *Predicting Reading Performance based on Eye Movement Analysis with Hidden Markov Models.* 22<sup>nd</sup> IEEE ICALT. **[Student Award Winner]**
- July 22<sup>nd</sup>, 2022 *The impact of mask use on social categorization.* CogSci2022 Hong Kong Meetup & Symposium.
- July 29<sup>th</sup>, 2022 *The impact of mask use on social categorization.* 44th Annual Conference of the Cognitive Science Society

### **Poster Presentations at Conferences**

- Jul. 28<sup>th</sup>, 2020 *Audiovisual Information Processing in Emotion Recognition: An Eye Tracking Study.* 42nd Annual Conference of the Cognitive Science Society.
- June 29<sup>th</sup>, 2023 *Cultural Differences in the Effect of Mask Use on Face and Facial Expression Recognition.* Poster presented at the 45th Annual Conference of the Cognitive Science Society.

### **Other Presentations/ Talks**

- May 2<sup>nd</sup>, 2019 *Does video content facilitate or impair comprehension of documentaries?* Oral presentation at 5th Annual Departmental Research Postgraduate Symposium, Department of Psychology, HKU.
- May 5<sup>th</sup>, 2020 *Audiovisual Information Processing in Emotion Recognition: An Eye Tracking Study.* Oral presentation at 6th Annual Departmental Research Postgraduate Symposium, Department of Psychology, HKU. **[Outstanding Oral Presentation Award Winner]**
- Mar. 26<sup>th</sup>, 2021 *Eye movement pattern and consistency predict passage reading performance of English as Second Language (ESL) Learners.* Brown Bag Seminar, Department of Psychology, HKU.
- Aug. 12<sup>th</sup>, 2023 *Cultural differences in the Effect of Mask Use on Face and Facial Expression Recognition.* CogSci2023 Shanghai Meetup & Symposium.

## **TEACHING EXPERIENCE**

### **Teaching assistant of the following courses at HKU**

|             |          |  |
|-------------|----------|--|
| 2023 Fall   | PSYC2102 | Foundations of Neuroscience                        |
| 2022 Spring | PSYC1001 | Introduction to Psychology                         |
| 2020 Spring | PSYC2066 | Foundations of Cognitive Science                   |
| 2019 Fall   | PSYC1004 | Introduction to Quantitative Methods in Psychology |

## **SERVICES**

|           |                                   |  |
|-----------|-----------------------------------|--|
| 2022-now  | Committee member                  | Cognitive Science Society, International Committee |
| 2019-2023 | Eye-tracking lab manager          | Department of Psychology, HKU                      |
| 2019-2021 | Lab manager                       | Attention, Brain and Cognition Lab                 |
| 2015-2018 | Student mentor & academic advisor | HKU CSSAUD   |

## **VISITING EXPERIENCE**

|           |                                  |                                  |
|-----------|----------------------------------|----------------------------------|
| 2023      | University of Western Australia  | <i>Visiting Research Student</i> |
| 2016-2017 | University of Tokyo              | <i>University-Wide Exchange</i>  |
| 2016      | University of Cambridge          | <i>Pembroke-King's Program</i>   |
| 2015      | University of California, Irvine | <i>Summer Program</i>            |