Yong Min Choi

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Current Affiliation Vision & Cognitive Neuroscience Lab

The Ohio State University (https://u.osu.edu/golomblab/)

Research Interests

Visual perception, eye movement, perceptual stability, scene perception, ensemble representation, attention

Education Backgrounds

Ohio State University Columbus, Ohio, USA 2020 - 2025 (expected)

Ph.D. candidate in Cognitive Neuroscience, Dept of Psychology

M.S. in Cognitive Neuroscience, Dept of Psychology

Advisor: Julie D. Golomb

Yonsei University Seoul, Republic of Korea (South Korea) 2018 - 2020

M.S. in Cognitive Science,

Advisor: Sang Chul Chong

Yonsei University Seoul, Republic of Korea (South Korea) 2012 - 2018

B.A in Psychology (Joint major in Cognitive Science)

Publications & Preprints *: (co-)first author; #: corresponding author

Narhi-Martinez, W*., Choi, Y. M., Dube, B., & Golomb, J. D*. (2025). Allocation of Spatial Attention in Human Visual Cortex as a Function of Endogenous Cue Validity. *Cortex*

- Choi, Y. M*, Chiu. T. Y., Ferreira. J. & Golomb, J. D^v. (2024). Maintaining Visual Stability in Naturalistic Scenes. Preprint on *PsychArXiv*: https://doi.org/10.31234/osf.io/m9wa4
- Choi, Y. M**., & Golomb, J. D. (2024). The perceptual and mnemonic effects of ensemble representation on individual size representation. Attention, Perception, & Psychophysics. https://doi.org/10.3758/s13414-024-02963-x
- Choi, Y. M*, Cho, J., & Chong, S. C*. (2024). Ensemble Memory of a Scene Interacts With Current Perception Regardless of Attentional Requirements. *Journal of Experimental Psychology: Learning, Memory, and Cognition*.
- Strzelczyk, D., Clayson, P.E., ..., Lu, Z., Choi, Y. M., Lout, E., Golomb, J.D., ..., Langer, N. (2023 accepted, stage 1 registered replication). Contralateral delay activity as a marker of visual working memory capacity: a multi-site registered replication. *Cortex*. Preprint on PsyArXiv: https://psyarxiv.com/shdea/.
- Choi, Y. M*., & Chong, S. C[♥]. (2020). Effects of Selective Attention on Mean-Size Computation: Weighted Averaging and Perceptual Enlargement. *Psychological Science*, 0956797620943834.

Manuscripts under review/in preparation *: (co-)first author; ♥: corresponding author

- Choi, Y. M*, Chiu. T. Y., Ferreira. J. & Golomb, J. D^V. (under revision). Maintaining Visual Stability in Naturalistic Scenes: The roles of trans-saccadic memory and default assumptions.
- Choi, Y. M*, Chiu. T. Y. & Golomb, J. D^{\nu}. (in preparation). Behavioral and Neural Correlates of Impaired Post-Saccadic Scene Perception
- Choi, Y. M^* & Golomb, J. D^{ψ} (in preparation). Spatiotemporal Dynamics of Pre-saccadic Remapping in the Human Visual Cortex.

Invited talks

- Choi, Y. M. (Mar 2025). Through the Eyes of the Brain: Receptive Field Remapping in the Human Visual Cortex. <u>Midwest Regional Conference (MRC)</u>, 2025, Urbana, Illinois, USA.
- Choi, Y. M. (Aug 2024). Visual perception and saccadic eye movements: perceptual impairment and stability mechanisms. Vision and Perception Neuroscience Lab (PI: Dr. Kalanit Grill-Spector), Stanford University, CA, USA.
- Choi, Y. M. (Jun 2024). Visual perception and saccadic eye movements: perceptual impairment and stability mechanisms. Laboratory of Brain and Cognition (PI: Dr. Chris Baker), National Institute of Mental Health, MD, USA.

Conference talk presentations

- Choi, Y. M. & Golomb, J. D. (May 2025). Voxel-wise predictive encoding models reveal evidence for pre-saccadic remapping in the human visual cortex. the Vision Sciences Society annual conference in Florida, USA.
- Choi, Y. M., Chiu. T. Y., Golomb, J. D. (May 2024). Behavioral and neural correlates of impaired scene perception following saccadic eye movements. the Vision Sciences Society annual conference in Florida, USA.
- Choi, Y. M., Chiu. T. Y., Golomb, J. D. (Nov 2023). Behavioral and neural correlates of impaired scene perception following saccadic eye movements. *Center for Cognitive and Behavioral Brain Imaging research day*, 2023, Columbus, Ohio, USA.
- Choi, Y. M. & Golomb, J.D. (April 2022). Department of psychology Spring Graduate Student Research Forum.
- Choi, Y. M., Cho, J. E., & Chong, S. C. (July 2021). Interaction between current perception and recent multi-feature ensemble representations depending on task-relevance. the Korean Society for Cognitive and Biological Psychology.
- Choi, Y. M., Cho, J. E., & Chong, S. C. (June 2021). Task-irrelevant statistical ensemble memory of a scene affects current perception. the Virtual Working Memory Symposium.
- Choi, Y. M., Park, H. S. (May 2016). The effect of sleep on the type of memory associated with a traumatic event. *The Korean Society for Cognitive Science Annual Spring Conference*.

Conference poster presentations

- Choi, Y. M., Golomb, J. D. (Dec 2024). Voxel-Wise Predictive Encoding Models Reveal Evidence for Pre-Saccadic Remapping in the Human Visual Cortex. Center for Cognitive and Behavioral Brain Imaging research day, 2023, Columbus, Ohio, USA.
- Choi, Y.M., Chiu. T. Y., Golomb, J. D.(Jun 2024). Behavioral and neural correlates of impaired scene perception following saccadic eye movements. Organization for Human Brain Mapping, 2024, Seoul, Republic of Korea.
- Ferreira, J., Choi, Y.M., Chiu. T. Y., Golomb, J. D.(May 2024). The Blanking Effect on Detecting Changes in Natural Scenes across Saccades. the Vision Sciences Society annual conference in Florida, USA.
- Okojie, E., Dube, B., Choi, Y.M., Golomb, J. D.(Nov 2023). Assessing Connectivity Between Brain Regions in the Visual Cortex in the Context of Attention and Distraction, the Annual Biomedical Research Conference for Minoritized Scientists, 2023, Phoenix, AZ., USA.

- Choi, Y.M., Chiu. T. Y., Golomb, J. D.(Nov 2023). Behavioral and neural correlates of impaired scene perception following saccadic eye movements. The Society for Neuroscience, 2023, Washington, D.C., USA.
- Choi, Y.M., Chiu. T. Y., Golomb, J. D.(May 2023). Post-saccadic impairment of scene perception. the Vision Sciences Society annual conference in Florida, USA.
- Choi, Y.M., Chiu. T. Y., Golomb, J. D.(Feb 2023). Exploring Scene Perception Following Saccadic Eye Movements. Edward F. Hayes Advanced Research Forum in The Ohio State University, Ohio, USA.
- Choi, Y.M., Golomb, J. D.(Nov 2022). Stimulus regularities help protect visual perception from peri-saccadic impairment. OPAM in Boston, USA
- Zihan Bai, Choi, Y.M., Golomb, J. D.(May 2022). The influence of background scenes on spatial congruency bias. the Vision Sciences Society annual conference in Florida, USA.
- Choi, Y.M., Golomb, J. D.(May 2022). The effect of stimulus regularity on peri-saccadic perception. the Vision Sciences Society annual conference in Florida, USA.
- Choi, Y.M., Golomb, J. D.(June 2021). Does average size of an ensemble bias individual size representations during perception or working memory retention? the Virtual-Vision Sciences Society annual conference.
- Choi, Y.M., Chong, S. C. (June 2020). The effect of holding multi-feature ensemble in visual working memory on perception. the Virtual-Vision Sciences Society annual conference.
- Choi, Y.M., Chong, S. C. (May 2019). Attending to individual size modulates mean size computation. the Vision Sciences Society annual conference in Florida, USA.
- Choi, Y.M., Chong, S. C. (Feb 2019). Effect of attention on individual size in mean size computation. the Korean Society for Cognitive and Biological Psychology (travel award).

Awards

Best oral presentation at the <u>Center for Cognitive and Behavioral Brain Imaging research day</u> , 2023, Columbus, Ohio, USA	2023	Dec
1 st award from poster presentations for a Social and Behavioral Sciences at the <u>Edward F. Hayes</u> <u>Advanced Research Forum.</u>	2023	Feb
Travel Award for a poster presentation at the Korean Society for Cognitive and Biological Psychology annual conference.	2021	Jul
Distinguished Thesis, Yonsei University	2020	Dec
Travel Award for a poster presentation at the Korean Society for Cognitive and Biological Psychology annual conference.	2019	Feb

Scholarships / Fellowships

Graduate Excellence Award	2023	May-Aug
SBS Graduate Scholarship Award	2022	May-Aug
University Fellowship		
Scholarship funded by Brain Korea 21+, Ministry of Education, South Korea.	2019	Mar-Aug
Scholarship funded by Yonsei University for accelerated bachelor / master's scholarship program.	2018 -	2019

2019 - 2022

Extra-curricular Activities

Korean American Scientists and Engineers Association (KSEA) - Ohio chapter, Web master	2025 -
Panel for discussing academic research and graduate school at Code for Brain Decoding (CODE) program organized by Center for Cognitive Behavioral and Brain Imaging (CCBBI), OSU	2024 - Jun
Center for Cognitive and Behavioral Brain Imaging (CCBBI) Student Group, Technical Director.	2022 - 2023
Kavli Summer Institute in Cognitive Neuroscience (Santa Barbara, CA)	2022 Jun
R workshop for psychological science (lecturer. Do-Joon Yi, Psychology department, Yonsei University)	2019 Feb
Computer Neuroscience Winter School Korean Society for Computational Neuroscience	2018 Feb
Founding member and Vice-President of CogSci:IN Student Society of Cognitive Science at Yonsei University	2017 - 2018
Military service obligation at the police agency Seobu Police Station, Daejeon, Republic of Korea	2013 - 2015
Volunteer staff in KSCS (The Korean Society for Cognitive Science) annual spring conference at Sogang University.	2013 May
Mentoring	
Ehigialoya Okojie – Currently a PhD student in Neuroscience at UNC Chapel Hill (Advised by Dr. Charlotte Boettiger)	2023 - 2024
Mentoring Ehi throughout post-baccalaureate Research Education Program (<u>PREP</u>), investigating functional connectivity between brain regions under category-selective attention and distraction condition.	
Jake Ferreira – Currently an Analytics Services Associate at Veeva Systems	2023 - 2024
Mentoring Jake with undergraduate thesis project (The Ohio State University), investigating how human visual system maintain phenomenological stability across eye movement, using a blanking paradigm.	

 $Zihan\;Bai-Currently\;a\;research\;assistant\,/\;lab\;manager\;in\;Dr.\;Elizabeth\;Goldfarb's\;lab$

Mentoring undergraduate thesis project (The Ohio State University), investigating the role of background scene context on object-location binding. Together, we conducted three behavioral experiments and presented the results as a poster at 2022 VSS.