

Channy (Chaeun) Lim

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EDUCATION

Ph.D. in Cognitive Science	2021 – 2026 (expected)
Brown University, Providence, RI, USA Advisor: Dr. Fulvio Domini	
M.S. in Behavioral and Cognitive Neuroscience	2016 – 2018
Korea University, Seoul, Korea Advisor: Dr. Yang Seok Cho	
B.A. in Psychology	2011 – 2016
Korea University, Seoul, Korea	

PUBLICATIONS

- Kim, M. J., **Lim, C. E.**, Rheem, H., Lee, N., & Cho, Y. S. (2025). Spatiotemporal dynamics of mouse tracking reveal general and selective control mechanisms of the congruency sequence effect in Simon tasks. *Cognition*, 264, 106259.
- Lim, C.**, Vishwanath, D., & Domini, F. (2023). Sensorimotor adaptation reveals systematic biases in 3D perception. *Scientific Reports*, 15(1), 3847.
- Lee, H. J., Kang, J., Yu, H., **Lim, C.E.**, Oh, E., Choi, J. M., You, S., & Cho, Y. S. (2023). Reactive control in suicide ideators and attempters: An examination of the congruency sequence effect in cognitive and emotional Simon tasks. *PLoS ONE*, 18(11), e0295041.
- Lim, C. E.**, & Cho, Y. S. (2021). Cross-task congruency sequence effect without the contribution of multiple expectancy. *Acta Psychologica*, 214.
- You, S., **Lim, C. E.**, Park, M., Ryu, S., Lee, H. J., Choi, J. M., & Cho, Y. (2020). Response inhibition in emotional contexts in suicide ideators and attempters: Evidence from an emotional stop-signal task and self-report measures. *Psychology of Violence*, 10, 594-603.
- Lim, C. E.**, & Cho, Y. S. (2020). Response mode modulates the congruency sequence effect in spatial conflict tasks: evidence from aimed-movement responses. *Psychological Research*, 1-22.
- Lim, C. E.**, & Cho, Y. S. (2018). Determining the scope of control underlying the congruency sequence effect: roles of stimulus-response mapping and response mode. *Acta Psychologica*, 190, 267-276.
- Lim, C.**, Julia, P., Vishwanath, D., & Domini, F. (*in submission*). When depth reshapes distance: bidirectional coupling of exocentric and egocentric maps in vision.
- Lim, C.**, Vishwanath, D., & Domini, F. (*in prep*). How action changes what we see: Sensory feedback reshapes intrinsic biases in 3D space perception.

CONFERENCE PRESENTATIONS

Talk Presentation

- Lim, C.**, Vishwanath, D., & Domini, F. (2025). Exocentric information influences egocentric distance estimation in perception and action. Vision Sciences Society Annual Meeting, FL, United States. [*Elsevier/Vision Research International Travel Award*]
- Lim, C.**, & Domini, F. (2023). Sensorimotor adaptation reveals systematic biases of 3D estimates for reach-to-grasp actions. Vision Sciences Society Annual Meeting, FL, United States
- Lim, C. E.**, & Cho, Y.S. (2018). The Influences of Response Mode and Stimulus-Response Mappings on the Cross-task Congruency Sequence Effect. Annual Meeting of the Korean Society for Cognitive and Biological Psychology, Suwon, Korea.

4. **Lim, C. E., & Cho, Y.S.** (2017). The Influences of Response Mode and Stimulus-Response Mappings on the Cross-task Congruency Sequence Effect. Annual Meeting of the Korean Society for Cognitive and Biological Psychology, Busan, Korea. *[Awarded for Excellent Academic Presentation]*

Poster Presentation

1. **Lim, C., Vishwanath, D., & Domini, F.** (2026). Sensorimotor interaction actively reshapes intrinsic biases in the perception of 3D space. Vision Sciences Society Annual Meeting, FL, United States.
2. **Lim, C., Vishwanath, D., & Domini, F.** (2024). The influence of exocentric information on egocentric distance estimates for perception and action. European Conference on Visual Perception, Aberdeen, UK. *[Awarded for Excellent Poster]*
3. **Lim, C., Vishwanath, D., & Domini, F.** (2024). Interplay of exocentric and egocentric information in distance perception for visuomotor tasks. Vision Sciences Society Annual Meeting, FL, United States.
4. Lee, H. J., Song, I., **Lim, C. E., & Cho, Y. S.** (2020). Inhibitory Control Mechanisms Underlying the Stroop and Stop-Signal Tasks Interactively Modulate Memory Encoding. Annual Meeting of the Psychonomic Society, United States (Virtual).
5. **Lim, C.E., Rheem, H., & Cho, Y.S.** (2019). The Temporal and Spatial Dynamics of the Congruency Sequence Effect. Annual Meeting of the Psychonomic Society, Montreal, Canada.
6. You, S., **Lim, C.E.,** Park, M., Ryu, S., Lee, H.J., Choi, J.M., & Cho, Y.S. (2019). Impulsivity and poor inhibitory control in emotional contexts in suicide ideators and attempters: Evidence from an emotional stop-signal task and self-report measures. World Congress of Behavioral and Cognitive Therapies (WCBCT), Berlin, Germany.
7. **Lim, C.E., & Cho, Y.S.** (2018). The Control Mechanism Underlying the Processing of Horizontal and Vertical Dimensions. Annual Meeting of the Psychonomic Society, New Orleans, LA.
8. **Lim, C.E., & Cho, Y.S.** (2018). The Influence of Response Mode on the Scope of Control in the Simon Tasks. International Meeting of the Psychonomic Society, Amsterdam, the Netherlands.
9. **Lim, C. E., & Cho, Y.S.** (2017). The Influences of Response Mode and Stimulus-Response Mappings on the Cross-Task Congruency Sequence Effect. Annual Meeting of the Psychonomic Society, Vancouver, Canada.
10. **Lim, C., & Cho, Y.S.** (2016). Influences of Working Memory Load on the Congruency Sequence Effect. Annual Meeting of the Psychonomic Society, Boston, MA.

RESEARCH EXPERIENCE

3D Information for Perception & Action Lab, Brown University

09/2021 – present

Graduate Researcher | PI: Dr. Fulvio Domini

- Characterized systematic biases in 3D properties (e.g., depth and distance) perception by designing psychophysical VR experiments that quantify the dissociation between physical geometry and perceived surface structure.
- Investigated sensorimotor adaptation mechanisms in reaching and grasping (visuomotor control), utilizing high-fidelity hand-tracking to analyze kinematic metrics and model how the motor system compensates for perceptual errors.
- Programmed custom 3D visual stimuli using OpenGL and C++, enabling the precise, independent manipulation of 3D cues (vergence, accommodation, shading, texture, disparity) to ensure rigorous experimental control.

Google Design Platform, Google LLC

05/2025 – 01/2026

UX Research Intern & Student Researcher

- Investigated perceptual thresholds in Extended Reality (XR), specifically characterizing the psychophysics of eye-gaze and hand-ray interaction models to establish baseline metrics for interaction fidelity.
- Designed and executed mixed-method research protocols, combining quantitative psychophysical paradigms with qualitative usability testing to evaluate the efficacy of novel 3D interaction techniques.
- Synthesized empirical findings into a theoretical framework for XR interface design, contributing foundational guidelines to the Android XR platform and translating perceptual science into engineering

specifications.

Behavioral Science Center, Korea University

09/2018 – 03/2021

Research Specialist | PIs: Drs. Yang Seok Cho, Chai-Youn Kim, and Hackjin Kim

- Investigated the continuous dynamics of cognitive control, specifically how control mechanisms operate across perception, cognition, and action, by designing and executing mouse-tracking paradigms to capture real-time decision processes.
- Implemented machine learning techniques (SVM) and statistical models to analyze complex behavioral data, successfully decoding both discrete and continuous features of mouse trajectories to predict cognitive states.
- Examined the neural underpinnings of inhibitory control and working memory, managing the full experimental pipeline from EEG data acquisition (Neuroscan) to the integrated analysis of neurophysiological and behavioral datasets.

Human Performance Lab, Korea University

03/2016 – 08/2018

Graduate Researcher | PI: Dr. Yang Seok Cho

- Investigated the neural mechanisms of cognitive control, designing and executing fMRI studies to dissociate task-relevant from task-irrelevant processing, and analyzing neurophysiological data using MATLAB and AFNI.
- Elucidated the interaction between working memory and response modalities (keypress vs. aimed movements) by developing novel dual-task paradigms combining interference tasks (Simon, Stroop, Flanker) with memory loads.
- Collaborated on an interdisciplinary clinical study identifying risk factors for suicidal behavior, specifically assessing inhibitory control deficits using the Stop-Signal Task and correlating performance with clinical assessments.

Severe Mental Illness Lab for Excellent Care (SMILE), Korea University

07/2015 – 06/2017

Undergraduate Research Assistant | PI: Dr. Kee-Hong Choi

- Administered clinical cognitive batteries and managed eye-tracking protocols for patients with schizophrenia, ensuring data quality in sensitive clinical settings.
- Evaluated the efficacy of the "Behavioral Activation" group therapy program by assisting in session facilitation and performing statistical analysis on quality-of-life outcomes.

TEACHING/MENTORING EXPERIENCE

Research Mentor, 3DIPA Lab, Brown University	Spring 2023 – Fall 2025
Teaching Assistant, Statistical Methods, Brown University	Spring 2023, 2025
Teaching Assistant, Research Methods, Brown University	Fall 2024
Teaching Assistant, Experimental Analysis of Vision for Perception & Action, Brown University	Fall 2022
Teaching Assistant, Attention and Response Selection, Korea University	Spring 2016, 2017
Teaching Assistant, Introduction to Psychological Research and Application, Korea University	Fall 2016
Teaching Assistant, User Experience and Psychology, Korea University	Fall 2016

ACADEMIC HONORS & AWARDS

Elsevier/Vision Research International Travel Award, VSS	2025
Excellent Academic Presentation Award, ECVF	2024
Research Scholarship, Ministry of Science and ICT of Korea	2020
Excellent Academic Presentation Award, Korean Society for Cognitive and Biological Psychology	2018
Research Scholarship for Graduate Researcher, Korea Student Aid Foundation	2017
Academic Excellence Scholarship, Korea University	2013 - 2014
Scholarship for Excellent Admission, Korea University	2011 - 2012

TECHNICAL SKILLS

Programming | Python, Matlab, OpenGL, C++

Statistical Analysis | R, JASP, SAS, SPSS

Neurophysiological Analysis | AFNI (fMRI), EEGLAB (EEG)

ACADEMIC SERVICE

Ad Hoc Reviewer | Journal of Experimental Psychology: Human Perception and Performance

Frontiers in Human Neuroscience

Scientific Reports

Seminar Organizer | Perception & Action Seminar (Brown University)

Volunteer Researcher for Outreach | Brain Fair (Brown University), College Day for local students (Brown University)