BYUNG-IL OH

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INTERESTS

Working memory, Ensemble representation, Computational modeling, Human neuroimaging

EDUCATION

Sungkyunkwan University

- B.S. in Psychology & B.S. in Convergence Software

Seoul, Republic of Korea Mar. 2013 – Present

RESEARCH EXPERIENCES

Visual Cognitive Neuroscience Lab, Sungkyunkwan University *Research Assistant* (Advisor: Prof. Min-Suk Kang)

- Led project on working memory and ensemble representation. Led discussion of neuroimaging decoding. Ran behavioral and EEG experiment. Set up and managed EEG environment and participant pool.

Seoul, Republic of Korea Feb. 2015 – Aug. 2018

Sensorimotor Cognition Laboratory,

Center for Neuroscience Imaging Research, Institute of Basic Science *Summer Intern* (Advisor: Prof. Jun-Yeol Lee)

- Led pilot project on smooth pursuit eye movement and memory. Ran behavioral experiment with eye-tracker and presented result by poster. Learned basics of MRI and fMRI.

Suwon, Republic of Korea Jun. 2016 – Jul. 2016

Functional Brain Mapping Lab,

Center for Neuroscience Imaging Research, Institute of Basic Science *Undergraduate Assistant* (Advisor: Prof. Yunbok Kim)

- Assisted lab environment setting of rodent optical imaging. Observed rat surgery. Participated in lab meeting by giving presentation.

Suwon, Republic of Korea Jun. 2015 – Aug. 2015

PUBLICATIONS & MANUSCRIPTS IN PROGRESS

- 1. **Oh, B.-I.**, Kim, Y.-J., Kang, M.-S. (submitted). Ensemble representations reveal distinct neural coding of visual working memory.
- 2. Son, G., **Oh, B.-I.**, Kang, M.-S., & Chong, S. C. (under review). Similarity-based clusters are representational units of visual working memory.
- 3. Kang, M.-S. & **Oh**, **B.-I.** (2016). Grouping influences output interference in short-term memory: a mixture modeling study. *Frontiers in Psychology*, 7:585, 1-6.

PRESENTATIONS

- 1. Kang, M.-S., **Oh, B.-I.**, & Kim, Y. (2018). Neural coding schemes of anterior and posterior brain regions in the formation of cluster representation in visual working memory. Poster presented at the 18th Annual Meeting of the *Society for Neuroscience*, SD., U.S.
- 2. Son, G., **Oh, B.-I.**, Kang, M.-S., & Chong, S. C. (2018). Similarity-based clusters are the representational units of visual working memory. Poster presented at the 18th Annual Meeting of the *Vision Science Society*, St. Pete Beach, FL., U.S.
- 3. **Oh, B.-I.** & Kang, M.-S. (2018). Cluster representation during maintenance in visual working memory. Poster presented at the 18th Annual Meeting of *Korean Society for Cognitive and Biological Psychology*, Suwon, Republic of Korea.
- 4. Son, G., **Oh, B.-I.**, Kang, M.-S., & Chong, S. C. (2018). Similarity-based clusters are the representational units of visual working memory. Poster presented at the 18th Annual Meeting of *Korean Society for Cognitive and Biological Psychology*, Suwon, Republic of Korea.
- 5. **Oh, B.-I.** & Kang, M.-S. (2017). Time is needed for memory to be biased toward an ensemble average. Poster presented at the 17th Annual Meeting of the *Vision Science Society*, St. Pete Beach, FL., U.S. Abstract published in *Journal of Vision*, *17*(10), 350.

MATLAB (Psychtoolbox, EEGLAB, FieldTrip), Python (Psychopy, PyMC) TECHNICAL SKILLS Advanced Moderate R (Stan), C, Java, HTML/CSS, JavaScript, MySQL, Photoshop, Illustrator **Beginner** C++, C#, PHP, Django, Unity, Arduino Samsung Convergence Software Course Scholarship (~\$3,000) Spring 2015 – Fall 2016 **SCHOLARSHIPS** Korea Student Aid Foundation Scholarship (~\$12,000) Spring 2013 – Fall 2016 Sungkyunkwan University Scholarship (~\$12,000) Spring 2013 – Fall 2016 **TEACHING** Brain, Mind, and Behavior (PSY3013-01), Seoul, Republic of Korea Fall 2016 Department of Psychology, Sungkyunkwan University **EXPERIENCES** Teaching Mentor - Gave summary presentation of cognitive neuroscience topics such as neuroimaging method, perception, attention, memory, decision making, social neuroscience to classmate. Seoul, Republic of Korea Perception (PSY3008-01), Department of Psychology, Sungkyunkwan University Spring 2015 Teaching Mentor - Covered psychometrics, visual, auditory, somatosensory, gustatory perception. Summarized study material for class buddy. Answered their question and led discussion on topic. Seoul, Republic of Korea EXTRA-Cognitive Psychology Student Club, Sungkyunkwan University Regular Member Apr. 2014 – Nov. 2017 **CURRICULAR** - Participated in various project on memory, attention, consciousness, **ACTIVITIES** face recognition, motion perception, time perception, navigation. Ran experiment, analyzed data, wrote paper, and gave presentation. Jan. 2015 - Dec. 2015 President - Organized club meeting and funding. Programmed experiment and ran statistical analysis. Made decision on project. Seoul, Republic of Korea Data Analysis Student Club, Sungkyunkwan University Regular Member Mar. 2016 - Nov. 2017 - Studied statistics, data analysis, machine learning, R, python. Participated in project on network analysis. Entered competition of recommendation system.

KATUSA (Korean Augmentation to the United States Army), Republic of Korea Army

Administrative Specialist

MILITARY SERVICE

- Performed mandatory military service. Worked with Eighth U.S. Army.

Last Updated: January 10, 2019

Republic of Korea

Oct. 2018 - Present