BYUNG-IL OH

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INTERESTS

Working memory, Long-term memory, Computational modeling, Human neuroimaging

EDUCATION

Sungkyunkwan University

- Bachelor of Arts in Psychology

- Bachelor of Science in Engineering, Interdisciplinary Program of Convergence Software Seoul, Republic of Korea Mar. 2013 – Present

RESEARCH EXPERIENCES

Visual Cognitive Neuroscience Lab, Sungkyunkwan University

Research Assistant (Advisor: Prof. Min-Suk Kang)

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

- Led project on working memory and ensemble representation. Ran behavioral and EEG experiments. Set up and managed EEG environment and participant pool.

Sensorimotor Cognition Laboratory,

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

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

- Participated in 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.

Functional Brain Mapping Lab,

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

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

- Assisted in setting lab environment of rodent optical imaging. Observed rat surgery.

PUBLICATIONS & MANUSCRIPTS IN PROGRESS

- 1. **Oh, B.-I.**, Kim, Y.-J., Kang, M.-S. (under review). Ensemble representations reveal distinct neural coding of visual working memory.
- 2. Son, G., **Oh, B.-I.**, Kang, M.-S., & Chong, S. C. (in press). Similarity-based clusters are representational units of visual working memory. *Journal of Experimental Psychology: Learning, Memory, and Cognition*.
- 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.

TECHNICAL SKILLS

MATLAB (including Psychtoolbox, EEGLAB, FieldTrip) Familiar

Moderate Python (including PsychoPy, PyMC3, Keras), R (including Stan)

Beginner C/C++, C#, Java, HTML/CSS, JavaScript, MySQL, PHP, Django, Unity, Arduino

TEACHING EXPERIENCES

Brain, Mind, and Behavior (PSY3013-01),

Department of Psychology, Sungkyunkwan University

Seoul, Republic of Korea

Fall 2016

Teaching Mentor

Gave summary presentation of cognitive neuroscience topics such as neuroimaging method, perception, attention, memory, decision making, social neuroscience to classmates.

Perception (PSY3008-01),

Seoul, Republic of Korea

Spring 2015

Department of Psychology, Sungkyunkwan University

Teaching Mentor

Covered psychometrics, visual, auditory, and somatosensory perception. Summarized study material for class buddies. Answered their question and led discussion on topic.

EXTRA-**CURRICULAR** ACTIVITIES

Cognitive Psychology Student Club, Sungkyunkwan University

Seoul, Republic of Korea

Regular Member

Apr. 2014 – Nov. 2017

Participated in projects on memory, attention, consciousness, face recognition, motion perception, time perception, and navigation. Ran experiment, analyzed data, wrote paper, and gave poster and oral presentations.

Jan. 2015 - Dec. 2015 President

Organized club meeting and funding. Programmed experiment and ran statistical analysis. Made decision on project. Voluntarily taught members MATLAB and Psychtoolbox.

Data Analysis Student Club, Sungkyunkwan University

Seoul, Republic of Korea

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.

Work **EXPERIENCES**

KATUSA (Korean Augmentation to the United States Army),

Republic of Korea Oct. 2018 – Present

Republic of Korea Army Administrative Specialist

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

Last Updated: April 6, 2019