BYUNG-IL OH

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INTERESTS

Working memory, Ensemble representation, Computational modeling, Human neuroimaging

EDUCATION

Sungkyunkwan University — Seoul, Republic of Korea
Mar. 2013 – Present

- Bachelor of Arts in Psychology
- Bachelor of Science in Engineering, Interdisciplinary Program of Convergence Software

RESEARCH EXPERIENCES

Visual Cognitive Neuroscience Lab, Sungkyunkwan University — Seoul, Republic of Korea
Research Assistant (Advisor: Prof. Min-Suk Kang) — 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, — Suwon, Republic of Korea
Center for Neuroscience Imaging Research, Institute of Basic Science — Jun. 2016 – Jul. 2016
Intern (Advisor: Prof. Jun-Yeol Lee)

- 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, — Suwon, Republic of Korea
Center for Neuroscience Imaging Research, Institute of Basic Science — Jun. 2015 – Aug. 2015
Undergraduate Assistant (Advisor: Prof. Yunbok Kim)

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

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. (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.

TECHNICAL SKILLS

Advanced	MATLAB (including Psychtoolbox, EEGLAB, FieldTrip)
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), Seoul, Republic of Korea
Department of Psychology, Sungkyunkwan University 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
Department of Psychology, Sungkyunkwan University Spring 2015
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.

President Jan. 2015 – Dec. 2015

- 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
Republic of Korea Army Oct. 2018 – Present
Administrative Specialist

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

Last Updated: January 23, 2019