BYUNG-IL OH

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INTERESTS

Working memory, Ensemble representation, Computational modeling, Human neuroimaging

EDUCATION

Sungkyunkwan University — Seoul, Republic of Korea
- B.S. in Psychology & B.S. in Convergence Software — Mar. 2013 – Present

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. Led discussion of neuroimaging decoding. Ran behavioral and EEG experiment. 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
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.

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. (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.

TECHNICAL SKILLS

Advanced	MATLAB (Psychtoolbox, EEGLAB, FieldTrip), Python (Psychopy, PyMC)
Moderate	R (Stan), C, Java, HTML/CSS, JavaScript, MySQL, Photoshop, Illustrator
Beginner	C++, C#, PHP, Django, Unity, Arduino

SCHOLARSHIPS

Samsung Convergence Software Course Scholarship (~$3,000)	Spring 2015 – Fall 2016
Korea Student Aid Foundation Scholarship (~$12,000)	Spring 2013 – Fall 2016
Sungkyunkwan University Scholarship (~$12,000)	Spring 2013 – Fall 2016

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 classmate.

Perception (PSY3008-01),
Department of Psychology, Sungkyunkwan University
Seoul, Republic of Korea
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.

EXTRA-CURRICULAR ACTIVITIES

Cognitive Psychology Student Club, Sungkyunkwan University
Seoul, Republic of Korea
Apr. 2014 – Nov. 2017
Regular Member
- Participated in various project on memory, attention, consciousness, face recognition, motion perception, time perception, navigation. Ran experiment, analyzed data, wrote paper, and gave presentation.

President
Jan. 2015 – Dec. 2015
- Organized club meeting and funding. Programmed experiment and ran statistical analysis. Made decision on project.

Data Analysis Student Club, Sungkyunkwan University
Seoul, Republic of Korea
Mar. 2016 – Nov. 2017
Regular Member
- Studied statistics, data analysis, machine learning, R, python. Participated in project on network analysis. Entered competition of recommendation system.

MILITARY SERVICE

KATUSA (Korean Augmentation to the United States Army),
Republic of Korea Army
Republic of Korea
Oct. 2018 – Present
Administrative Specialist
- Performed mandatory military service. Worked with Eighth U.S. Army.

Last Updated: January 10, 2019