

HYERAN KANG

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EDUCATION

MAR 2021 -
AUG 2023

KOREA UNIVERSITY

M.Sc. in Behavioral and Cognitive Neuroscience
 Department of Psychology
 GPA: 4.50/4.50
 Advisor: Hackjin Kim

MAR 2016 -
FEB 2021

EWHHA WOMANS UNIVERSITY

Summa Cum Laude
 GPA: 4.13/4.30
 B.A. in Social Studies Education (History), Department of Education
 B.A. in Psychology, Department of Social Science

PUBLICATION

- **Kang, H.-R.**, Kim, J.Y., Kim, D., & Kim, H. Daemullim: Unfairness cascades in a hierarchical context, *Under Review*
- **Kang, H.-R.***, Kim, K.I.* , Kim, J.H., & Kim, H. Neural representations in MPFC and insula encode individual differences in estimating others' preferences, *In Preparation*

PRESENTATION

- **Kang, H.-R.***, Kim, K.I.* , Kim, J.H., & Kim, H. (2023). Neural representations in MPFC and insula encode individual differences in estimating others' preferences, *Poster presented at the 2023 Annual Meeting of Social and Affective Neuroscience Society (SANS)*
Apr. 2023, California, U.S.
- **Kang, H.-R.***, Kim, K.I.* , Kim, J.H., & Kim, H. (2023). Neural mechanisms underlying individual differences in others' preference estimation, *Talk presented at the 2023 Annual Meeting of the Korean Society for Cognitive and Biological Psychology*
Feb. 2023, Seoul, South Korea
- **Kang, H.-R.**, Kim, J.Y., Kim, D., & Kim, H. (2022). Negative Pay-It-Forward reciprocity in hierarchical situations, *Talk presented at the 2022 Annual Meeting of the Korean Society for*

EXPERIENCE

MAR 2021 -

Graduate Student & Post-Master's Researcher

Laboratory of Social and Decision Neuroscience, Korea University

Project 1. Negative pay-it-forward reciprocity in a hierarchical context

I undertook a research project that involved designing the experimental protocol, collecting data, analyzing the data, and writing the manuscript. As a result of this project, I gained an in-depth understanding of the entire research process, starting from designing the experiment to writing and submitting the manuscript. Due to the pandemic, the experiment was conducted online using jsPsych. Data analysis was performed using SPSS and MATLAB, while visualization was carried out using MATLAB, Python, and R. This experience has taught me the importance of starting the experiment with a clear basis of previous studies and theories, developing precise hypotheses, organizing data systematically, and putting in significant effort in writing the manuscript.

Project 2. Neural representations in MPFC and insula encode individual differences in estimating others' preferences

I performed an fMRI data analysis that involved several methods such as univariate group level analysis (multiple regression), group independent component analysis (gICA), and inter-subject representational similarity analysis (is-RSA). Data analysis was performed using MATLAB and R, and visualization was carried out using MATLAB and Python. As a result of this research, I gained a greater appreciation for the intricate journey of neural mechanisms underlying individual differences in social cognition. At present, I am writing the manuscript for submission.

Project 3. The Clock and the Crowd: How time pressure and group's preference can sway our valuation

I am working on a project for which I designed the experimental protocol. This project is in progress.

Advisor: Hackjin Kim

FEB 2020 -
AUG 2020

Undergraduate Research Assistant

A Growing Experience Laboratory, Ewha Womans University

Project: Children's Language Development, Executive Functions, Parenting Style, GRIT

I conducted experiments on children between the ages of 4 and 6, wrote detailed records of the experiments, and coded materials for analysis. Through this work, I gained experience in experimental design, data collection, and developed skills in organizing and managing large amounts of data. Working with young children also helped me to develop patience and adaptability, as I learned to adjust my approach to accommodate the needs and behavior of each child. Overall, this experience taught me the importance of thoroughness and attention to detail in research, and the need for flexibility and creativity when working with young participants.

Advisor: Sujin Yang

AWARDS & HONORS

FEB 2022

Brain Korea Idea Contest - 2nd Place

Team: Symbeolli (meaning "Understanding Discrimination Through Psychology" in Korean Initial)

My team created video clips addressing a range of social issues, including ageism, racial discrimination, political conflicts, school violence, and altruism. The purpose of these videos was to demonstrate the psychological and neural mechanisms underlying these phenomena, using related psychology and neuroscience studies. The videos were targeted towards

teenagers, so we made sure to make the materials as engaging and comprehensible as possible, using movie clips, news topics, books, and other sources of interest to young people. Through this project, I learned the importance of communicating complex ideas in an accessible way and making the material relevant and interesting to the intended audience.

Videos were uploaded on [Youtube](#)

*Received \$390 as a prize for winning 2nd place in the contest

MAR 2016 -
FEB 2020

Academic Honors

Dean's List (1st Semester, 2016)
Dean's List (2nd Semester, 2016)
Dean's List (1st Semester, 2017)
Dean's List (2nd Semester, 2017)
Dean's List (1st Semester, 2018)
Dean's List (1st Semester, 2019)
Dean's List (2nd Semester, 2019)

SCHOLARSHIP

MAR 2022

Teaching Assistant Scholarship

100% of tuition for 1 semester (approximately \$4,750)

MAR 2021 -
AUG 2021

Brain Korea Scholarship

50% of tuition for 1 semester (approximately \$2,350)

* Scholarship awarded to students who have excellent research potential and actively contribute to the academic performance of the department

MAR 2017 -
FEB 2021

Academic Excellence Scholarship

Honors Scholarship (1st Semester, 2017)
Honors Scholarship (1st Semester, 2018)
Honors Scholarship (2nd Semester, 2019)
Honors Scholarship (1st Semester, 2020)

25% of tuition for each semester (approximately \$700)

* Merit-based scholarship awarded to students in the top 6% of GPA

DEC 2017

Abroad Teaching Practice Scholarship

Scholarship for teaching practice in Boston

* Scholarship awarded to students who were selected as abroad education team member by the Department of Education at Ewha Womans University

EXTRACURRICULAR ACTIVITIES

MAR 2019 -
APR 2019

Teaching Practice

Sookmyung Girl's Middle School (Seoul, Korea)

: Served as a temporary prime teacher and history teacher for 7th-grade classrooms, teaching Korean ancient history in a public middle school. During this time, I learned the value of teaching as I prepared teaching materials, supplementary activities, pop quizzes, and interacted with my students. Through this experience, I gained a deeper appreciation for the preparation and planning that goes into teaching, as well as the importance of engaging with students in meaningful ways.

DEC 2017 -
MAR 2018

Education Volunteer Service

Yanjae Elementary School (Seoul, Korea)

: Volunteered for winter break school and after-school programs, where I provided care and instruction for students between the ages of 5 and 10 whose parents were both working and unable to look after them during winter break or after school hours. During these programs, I taught fundamental skills such as math, reading, and essay writing. Through this experience,

JAN 2018 -
FEB 2018

I gained a deeper appreciation for the importance of providing a safe and supportive environment for children, and the value of teaching them essential life skills that will serve them well in the future.

Abroad Teaching Practice

Joshua-Quincy Elementary School (Boston, Massachusetts, USA)

: Selected as a member in the Abroad Teaching Practice program in Boston, which was sponsored by the Department of Education at Ewha Womans University. As part of this program, I worked with a team at Joshua-Quincy Elementary School to introduce students to the history of Hangul, the Korean alphabet, and teach them how to read and write Korean. We helped each student understand the basic principles of Korean and even taught them how to write their own names using a brush. Additionally, with the teachers, we discussed educational programs and facilities for students with disabilities, which was inspiring and eye-opening for me. This experience helped me see the importance of inclusive education and made me more aware of the needs of all students.

JAN 2017 -
FEB 2021

Teaching and Mentorship Part-time Job

Sunje Foundation English Institution (Seoul, Korea)

: For four years, I taught English grammar to middle and high school students and prepared materials for school exams. In addition, I was involved in creating promotional materials for the academy. I produced videos on how to do homework for students and designed academy posters. I also taught students how to manage their time. For this, I instructed them on how to write planners, and assisted in various ways to help them form good habits.

SKILLS

PROGRAMMING LANGUAGE

Language

- Matlab
- Python
- HTML

Experimental Tools

- jsPsych (javascript)
- PsychoPy (Python)
- Cogent (Matlab)
- PsychToolBox (Matlab)
- Cognition.run (Online)
- Pavlovia (Online)

Statistical Tools

- Matlab
- SPSS
- R
- SAS
- (fMRI) SPM12
- (fMRI) CONN
- (fMRI) FSL

Visualization Tools

- Python
- R
- Prism GraphPad

STATISTICAL SKILLS

Behavioral Data

- Linear Regression
- Logistic Regression
- Generalized Linear Mixed Model (GLMM)
- Repeated-Measure ANOVA (rmANOVA)
- Clustering
- Exploratory Data Analysis (EDA)

NeuroImaging Analysis

- Multiple Regression
- Group Independent Component Analysis (gICA)
- Temporal Sorting
- Intersubject Representational Similarity Analysis (is-RSA)
- Psychophysiological Interaction (PPI)
- Support Vector Classifier (SVC)
- Diffusion Tensor Imaging (DTI)

Physiological Data

- Heart Rate Variability
- Heartbeat Counting (BIOPAC)

OTHER SKILLS

Graphics & Video Editing

- Adobe Premiere Pro
- Adobe Photoshop
- Adobe Illustrator
- Adobe After Effects

Certificate

- Teacher License (Social Studies Education)
Ministry of Education, South Korea

REFERENCES

HACKJIN KIM

Department of Psychology, Korea University
Contact: hackjinkim@korea.ac.kr

Laboratory of Social and Decision Neuroscience

SANGHEE KIM

Department of Brain and Cognitive Engineering, Korea University
Contact: shkim0301@korea.ac.kr

Affective Cognition Lab

SOHYUN “SOPHY” KIM

Department of Psychology, Korea University
Contact: sohkim@korea.ac.kr

Spectrum Child Clinical Psychology Lab