

## RESEARCH INTERESTS

---

Social-affective psychology & neuroscience, Emotion perception and expression,  
Social interactions, Dynamic understanding of the natural world,  
Computational models, Translational research to psychopathology

## EDUCATION

---

**2018-2020 M.A., Seoul National University, Republic of Korea**

Psychology, Advisor : Dr. Jeanyung Chey, GPA 4.05/4.3

**2016** 6-month Exchange Program at Pennsylvania State University, USA.

**2014-2018 B.A. & B.S.E., Sogang University, Republic of Korea**

Psychology & Convergence Software, *Magna Cum Laude*, GPA 3.71/4.3

## RESEARCH EXPERIENCE

---

**2018-2020 Research Assistant at Clinical Neuroscience Lab**

Seoul National University, ROK. PI: Dr. Jeanyung Chey

Received student funding (\$10,200)

### Projects :

*Korean Social Life, Health, and Aging Project*

Co-lead three studies of the multi-year project collaborating with research groups of social science and medical fields. Designed and organized experiments of fMRI, cognitive assessment, psychosocial surveys, and social network surveys. Collected and analyzed data. Served as major contributor for the writing of manuscripts including master's dissertation.

*The Effect of Social Isolation on Late-life Brain Aging Risk: The Interactive Model between Neural Response and Inflammatory Gene Expression.*

Co-lead collaborative work with the Center of Happiness Studies at SNU. Designed and organized experiments of fMRI, inflammatory RNA and markers, and psychosocial factors.

**2016 1-month Intensive Research Internship at Cognitive Computational Neuroscience Lab**

Sungkyunkwan University, ROK. PI: Dr. Choong-wan Woo

Trained in neuroimaging research. Developed behavioral experiment on pain rating and performed poster presentation at Cognitive Neuroscience Symposium, IBS Center for Neuroscience Imaging Research.

**Poster :** *A Pilot Study on a Semicircular Pain Rating Scale*

**2016-2017 5-month Research Assistant at Behavioral Psychology Lab**

Yonsei University, ROK. PI: Dr. Kyong-Mee Chung

Participated in lab meetings for a project on developing cognitive behavioral therapy application for cancer survivors.

## PROFESSIONAL EXPERIENCE

---

### 2021 Product Manager at Digital Healthcare Company

Mindhub Inc., ROK.

#### Project :

*Virtual Reality based Cognitive-Speech Rehabilitation System for Stroke Patients*

In cooperation with speech-language pathologists and VR engineers, developed an immersive VR environment where stroke patients exercise speech-language and cognitive skills with supporting tools of personalized training algorithm and automated reports. Led a government funded project and took on responsibilities defining vision and roadmap, developing contents, and presenting results on demo day (<https://youtu.be/ygOEY0dL73s?t=4455>).

## PUBLICATIONS

---

### Poster

Oh, N., Kwak, S., Kim, H., & Chey, J. (2019). P3-337: Systemic Inflammation Accelerates Age-related Disintegration of Cognitive Control Networks. *Alzheimer's & Dementia*, 15, P1071-P1071. <https://doi.org/10.1016/j.jalz.2019.06.3369>.

Oh, N., Kim, H., Kwak, S., and Chey, J. (2018). Education Moderates the Relationship between Subjective Cognitive Decline and Inflammation in Older Adults. *Korean Clinical Psychology Association*.

### Master's Thesis

Naeun Oh. (2020). Neural Pattern Signature of Social Exclusion Predicts Loneliness in Older Adults. (in prep)

The study investigates the neural basis of experiencing social exclusion and verifies loneliness-related individual differences in behavioral and neural patterns in older adults.

## CONFERENCES & WORKSHOPS

---

2021 Neuromatch Academy 2021 Workshop on Deep Learning

**Project :** *Building a Controller in Model-free and Model-based RL in Two-step Task*

2021 Neuromatch Academy 2021 Workshop on Computational Neuroscience

**Project :** *The Hierarchical Architecture of the Visual Cortex and DNN*

2019 Alzheimer's Association International Conference

**Poster :** *Systemic Inflammation Accelerates Age-related Disintegration of Cognitive Control Networks*

2019 Korean Human Brain Mapping Summer School, OHBM Korea Chapter Program. Workshop on brain analysis methods.

2019 International Neuropsychological Society 47th Annual Meeting in NYC

2018 Korean Clinical Psychology Association Fall Conference

**Poster :** *Education Moderates the Relationship between Subjective Cognitive Decline and Inflammation in Older Adults*

2017 Cognitive Neuroscience Symposium, IBS Center for Neuroscience Imaging Research.

**Poster :** *A Pilot Study on a Semicircular Pain Rating Scale*

## SCHOLARSHIPS

---

- 2019** Conference travel grant, Seoul National University. For Alzheimer's Association International Conference 2019. \$1500.
- 2017** Samsung Convergence Software Course Scholarship, Sogang University. \$2000.
- 2015-2017** Work Scholarship assisting coursework and studies for students with disabilities, Sogang University. \$860.
- 2015** Academic Scholarship, Sogang University. \$600.

## PROFESSIONAL AFFILIATIONS

---

- 2020-Present** Student member of the Social & Affective Neuroscience Society
- 2018-Present** Student member of the Korean Psychology Association,  
Korean Clinical Psychology Association

## SKILLS

---

- Software** Python, Anaconda, Spyder, JupyterNotebook for experiment design and implementation, fMRI analysis, statistical modelling, machine learning, deep learning, visualization  
MATLAB (SPM12, CONN) for fMRI analysis, visualization  
RStudio (stan) for statistical modelling including Bayesian  
Git for code version control  
Google Cloud Platform for heavy load computing
- Clinical Skills** Clinical assessment (MMSE, K-DRS, WAIS-IV, EMS, MMPI-2, Rorschach, SCT)  
Psychotherapy training  
Cognitive Behavioral Therapy (Supervisor: Dr. Sumi Park)  
Group Therapy with Interpersonal Approaches (Supervisor: Dr. Soohyun Ra)
- Management** Slack, Dropbox, Google Drive, Google Colab
- Languages** Korean(native), English(fluent), Chinese(basic)

## LEADERSHIP & SERVICE

---

- 2016-2017** Member of Undergraduate Psychology Association, Sogang University.
- 2014-2016** Officer role of Korean folk-percussion band, Sogang University.
- 2014-2015** Volunteer of mentoring program for high school students, Gyeonggi Province Youth Volunteer Center & Daegun Youth Association.
- 2014** 1-month Volunteer work in the Philippines, conducting research on the lives of Typhoon victims to provide insights for government policies on improving their quality of life.

## REFERENCES

---

**Dr. Jeanyung Chey, PhD.**

Seoul National University  
Professor, Department of Psychology  
Address: Seoul 151-742, South Korea  
Phone: (+82)2-880-6432  
Email: [jychey@snu.ac.kr](mailto:jychey@snu.ac.kr)

**Dr. Choongwan Woo, PhD.**

Sungkyunkwan University  
Assistant Professor, Department of Biomedical Engineering  
Center for Neuroscience Imaging Research, Institute for Basic Science  
Address: Suwon 16419, South Korea  
Phone: (+82)31-299-4363  
Email: [waniwoo@g.skku.edu](mailto:waniwoo@g.skku.edu)

**Dr. Seyul Kwak, PhD.**

Pusan National University  
Assistant Professor, Department of Psychology  
Address: Busan 46241, South Korea  
Phone: (+82)51-510-2160  
Email: [sykwak@pusan.ac.kr](mailto:sykwak@pusan.ac.kr)