

# Kibum Moon

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## EDUCATION

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### Georgetown University

Ph.D. Student in Psychology

Concentration: Human Development and Public Policy (HDPP)

Advisor: Kostadin Kushlev, Ph.D.

Aug. 2022 –  
Washington, DC

### Korea University

M.A. in Clinical and Counseling Psychology

Thesis title: The Effect of Implicit Attitude Toward a Partner on Relationship  
Satisfaction and Relational Conflict

Advisor: Young-gun Ko, Ph.D.

Cumulative GPA: 4.0 / 4.0

Sep. 2015 – Feb. 2018  
Seoul, Korea

### Korea University

B.A. in Psychology / Science Technology Studies (double major)

Cumulative GPA: 3.91 / 4.0

Mar. 2009 – Feb. 2015  
Seoul, Korea

### University of New South Wales

Exchange student in the School of Psychology

Feb. 2014 – May 2014  
Sydney, Australia

## PUBLICATIONS

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1. **Moon, Kibum**, Kim, J., Lee, J. (2021) The Early Prediction Model of Student Performance Based on Deep Neural Network Using Massive LMS Log Data. *Journal of the Korea Contents Association*. doi: [10.5392/JKCA.2021.21.10.001](https://doi.org/10.5392/JKCA.2021.21.10.001)
2. **Moon, Kibum**, Kim, S., Kim, J., Kim, H., & Ko, Y. (2020). The Mirror of Mind: Visualizing Mental Representations of Self Through Reverse Correlation. *Frontiers in Psychology*, 11, 1149. doi: [10.3389/fpsyg.2020.01149](https://doi.org/10.3389/fpsyg.2020.01149)
3. Kim, J., **Moon, Kibum**, Lee, J., Jeong, Y., Lee, S., & Ko, Y. G. (2022). Online learning performance and engagement during the COVID-19 pandemic: Application of the dual-continua model of mental health. *Frontiers in psychology*, 4228.
4. Min, H., Kim, J., **Moon, Kibum**. et al. Development and validation of COVID-19 Impact Scale. *BMC Psychol* 10, 88 (2022). <https://doi.org/10.1186/s40359-022-00793-w>
5. Lee, J., **Moon, Kibum**, Han, S., Lee, S., Kwon, H., Han, J. (2021) Development and Application of an AI-Powered Adaptive Course Recommender System in Higher Education: An Example from K University. *Journal of Educational Technology*. doi: [10.17232/KSET.37.2.267](https://doi.org/10.17232/KSET.37.2.267)
6. Kim, S., **Moon, Kibum**, Kim, J., & Ko, Y. (2020). The Relationship Between Borderline Personality Features and Affective Responses to Altering Emotional Context. *Current Psychology*. doi: [10.1007/s12144-020-01077-5](https://doi.org/10.1007/s12144-020-01077-5)
7. Kim, J., **Moon, Kibum**, & Ko, Y. (2020). A Validation of the Korean Version of Adolescent Positive Mental Health Scale. *Korean Journal of Health Psychology*, 25(4), 823-834. doi: [10.17315/kjhp.2020.25.4.012](https://doi.org/10.17315/kjhp.2020.25.4.012)
8. Lee, S., **Moon, Kibum**, & Ko, Y. (2019). The Effects of Ego Depletion and Psychological Burden on Fatigue in Everyday Life: Focusing on Narcissism. *Korean Journal of Clinical Psychology*,

38(1), 60-69.

doi: [10.15842/kjcp.2019.38.1.005](https://doi.org/10.15842/kjcp.2019.38.1.005)

9. Back, I., **Moon, Kibum**, & Ko, Y. (2019). A Validation Study of Mental Health Two-Factor Model: In a Sexual Minority Population. *The Korean Journal of Woman Psychology*, 24(4).

#### **PATENTS**

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1. **Moon, Kibum**, Lee, J., Lee, S., Han, S., Kwon, H., Han, J., Kim, G.T. (2022). System and Method for Recommending Related Courses Based on Graph Data and Recording Medium for Performing the Same. Application Number: 10-2022-0038656.
2. **Moon, Kibum**, Lee, J., Lee, S., Han, S., Kwon, H., Han, J., Kim, G.T. (2022). System and Method for Integrated Recommendation of Learning Activities Based on Keywords of Interest Using Academic Domain Embedding and Recording Medium for Performing the Same. Application Number: 10-2022-0026995.
3. **Moon, Kibum**, Han, J., Kwon, H., Lee, S., Lee, J., Han, S., Kim, G.T. (2021). System and Method for Recommendation of Course Based on Course Similarity and Computer Program for the Same. Application Number: 10-2021-0042245.
4. **Moon, Kibum**, Lee, J., Lee, S., Han, S., Kwon, H., Han, J., Kim, G.T. (2021). System and Method for Recommendation Major Based on Keywords of Interests by Users and Computer Program for the Same. Application Number: 10-2021-0064780.
5. Lee, J., **Moon, Kibum**, Han, S., Kwon, H., Han, J., Kim, G.T. (2022). Major Recommendation System and Major Recommendation Method Using Relationship-Based Knowledge Graph Embedding. Application Number: 10-2022-0028171

#### **MANUSCRIPTS UNDER REVIEW & IN PREPARATION**

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1. **Moon, Kibum**, Lee, H., & Ko, Y. (*preparing to submit again*) Implicit Accommodation to an Angry Romantic Partner: Effects on Romantic Relationship Persistence.
2. Kim, J., **Moon, Kibum**, Kim, S., Kim, H., & Ko, Y. (*under review at Frontiers in Psychology*) The Relationship between Mental Representations of Self and Social Evaluation: Examining the Validity and Usefulness of Visual Proxies of Self-Image.
3. Kim, H., Kim J., **Moon, Kibum**, Jeong, J., Ko, Y. (*preparing to submit again*) Effects of Communal Narcissism and Altruism on Psychosocial Maturity.
4. Shin, E., Bae, J., So, J., **Moon, Kibum**. (*in preparation*) Face-to-Face vs Screen-to-Screen: college student enrollment networks before and after COVID-19

#### **CONFERENCE PRESENTATIONS**

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1. **Moon, Kibum** (2020). The Impact of COVID-19 on Quality Education: Focusing on Socio-economic Disparity in Online Learning. Oral presentation at the 3<sup>rd</sup> K.U. Innovation Forum, Seoul, Republic of Korea
2. **Moon, Kibum** & Ko, Y. (2018). Facial Expression Accommodation Predicts Quality and Durability of Romantic Relationships. Poster presentation at the 30<sup>th</sup> APS Annual Convention, San Francisco, CA. U.S.
3. **Moon, Kibum**, Kim, H., Kim, S., Lee, C., & Ko, Y. (2017). Validation Study of the Korean version of the Balanced Index of Psychological Mindedness. Poster presentation at the 2017 Fall Conference of Korean Clinical Psychology Association, Seoul, South Korea
4. Kim, S., Kim, J., **Moon, Kibum**, Kang W., Ko, Y. (2021). The Relationship between Meta-emotion and Mental Health. Poster presentation at the 2021 Spring Conference of Korean Clinical Psychology Association, Seoul, South Korea
5. Kim, D., Shin, W., Han., K., Lee, J., **Moon, Kibum**, Lee, S., Han, S., Han, S. (2020). A system for

recommending university liberal arts courses using collaborative filtering. Short Paper at the 2020 Fall Conference of Korean Institute of Industrial Engineers, Seoul, South Korea

6. Kim, H., **Moon, Kibum**, Kim, J., & Ko, Y. (2020). The Relationship Between Communal Narcissism and Altruism. Poster presentation at the 2020 Fall Conference of Korean Clinical Psychology Association, Online
7. Kim, J., **Moon, Kibum**, Kim, S., & Ko, Y. (2020). Clinical Usefulness of Visualizing Mental Representations of Self through Reverse Correlation Method to Assess Depression and Anxiety. Poster presentation at 2020 APS Virtual Poster Showcase, Virtual
8. Kim, J., **Moon, Kibum**, Park, J., Kim, S., & Ko, Y. (2020). The Relationship Between Mental Health and Belongingness Orientation of the Homeless. Poster presentation at the 2020 Spring Conference of Korean Clinical Psychology Association, Online
9. Lee, J., **Moon, Kibum**, Lee, S., Han, S., Han, J., & Kwon, H. (2019). Convergence in University Interdisciplinary Education. Oral presentation at 2019 Korea Academy of Complexity Studies, Seoul, Republic of Korea
10. Park, K., Jung, S., **Moon, Kibum**, Pyo, S., & Choi, K. (2016). Empirically Supported Treatments in Korea. Oral presentation at the 2016 Spring Conference of Korean Clinical Psychology Association, Chuncheon, Korea

## SCHOLARSHIPS & AWARDS

<b>Fulbright Scholarship</b>	2021
U.S. Department of State, Bureau of Educational and Cultural Affairs – Fulbright Program	
The Korean-American Educational Commission (KAEC)	
<b>Principal candidate</b> for the 2022 Fulbright Graduate Student Program Award	
Full tuition and stipend up to \$40,000 per year (for the first 2 years)	
<b>Research Assistance Scholarship</b>	2015
Department of Psychology, Korea University	– 2017
Full tuition for 4 semesters (\$23,600)	
*A merit-based scholarship awarded for students who have excellent research potential and actively contribute to the academic development of the department.	
<b>K.U. Alumni Scholarships</b>	2014
The Alumni Association, Korea University	
Full tuition (\$4,200)	
*Among 1 of 177 students at Korea University selected for this merit-based scholarship. Selected based on academic excellence and potential to positively impact society.	
<b>Choonpha Hwangchungha Scholarships</b>	2013
The Choonpha Hwangchungha Scholarship Foundation	
Full tuition (\$4,200)	
*1 of 6 students at Korea University selected for this merit-based scholarship. Selected based on academic excellence.	
<b>Sung Ryun Scholarships</b>	2013
The Sung Ryun Scholarship Foundation	
Full tuition (\$4,200)	
*1 of 65 students selected across South Korea for this scholarship. Selected based on the potential to become a global leader.	
<b>Study Scholarships</b>	2012, 2014
Korea University	
Awarded for high GPA (\$1,000 / \$1,100)	
*Awarded for high academic achievement and financial need.	
<b>Honors Scholarships</b>	2009
Department of Psychology, Korea University	

Students with a high GPA in the department  
35% of tuition (\$1,250)

\*A merit-based scholarship awarded for students in the top 5% of GPA in the Department

### Semester High Honors

Department of Psychology, Korea University  
Students with a GPA of over 4.0 for 5 semesters

2009  
– 2014

## WORK & RESEARCH EXPERIENCE

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### Data Scientist

Data Hub Team, Office of Digital Information, Korea University  
Advisor: Gyu-Tae Kim, Ph.D.

Oct. 2019  
– Present

### Project: AI-Based Psychological and Academic Support Program for College Students in COVID-19

- Government-funded project to aid at-risk students in terms of mental health and academic achievement
- Built early prediction models based on deep learning algorithms to identify at-risk students using Learning Management System (LMS) log data; Conducted statistical analyses to examine “digital divide” among college students by socio-economic status; Published 1 research article; Delivered presentation at forum.

*\* Recognized as the best practice of using AI technologies in higher education by Korean Ministry of Education and covered by the mainstream press.*

### Project: AIKU: Recommendation System based on ML/DL in the Context of Higher Education

- Government-funded project to develop A.I. services to recommend lectures, majors, and extra-curricular activities for college students based on personal interests.
- Developed core machine learning and deep learning algorithms; Applied for two patents (*primary inventor*); Contributed to UI/UX designs; Published 1 research article.

*\* Awarded as the representative and best program among 22 programs for the University Innovation Support Project in two consecutive years; Covered by +10 media outlets as the first official A.I. service at college provided in South Korea.*

### Clinical Researcher

Student Counseling Center, Korea University  
Principal Investigator: Young-gun Ko, Ph.D.

Feb. 2019  
– Sep.  
2019

### Project: Visualizing Self-image Using Reverse Correlation (RC) Method

- First evidence to support the validity of the RC method to visualize how people perceive themselves.
- Initiated and prepared manuscript from conceptualization to dissemination (*first author*); Built on/off-line RC tasks; Tested validity and usefulness of RC-outputs by using self-reports and facial photos.

### Project: Borderline Personality Features and Emotional Recovery

- Investigation of the association between borderline personality features and prompt emotional recovery
- Involved in developing assessment to measure prompt emotional recovery by assessing residual antipathy to neutral face followed by hostile faces; Built computerized experiments; Generated facial stimuli using facial morphing; Participated in publication process (*second author*).

## **Post-Master Research Associate**

Mentoring Counseling Center of College of Liberal Arts at Korea University  
Advisor: Young-gun Ko, Ph.D.

Mar.  
2018  
– Jan.  
2019

### **Project: Validation of the Korean Version of Positive Mental Health Scales**

- Empirical studies to validate the two-factor structure of Positive Mental Health Scales in South Korea
- Conducted exploratory and confirmatory factor analyses using data obtained from adolescent and sexual-minority samples; Wrote the results section of manuscripts.

### **Project: The Effects of Ego Depletion and Psychological Burden on Fatigue in Everyday Life**

- Ecological Momentary Assessment (EMA) study to explore the moderating effect of overt and covert narcissism on the relationship between psychological burden and fatigue in daily life.
- Conducted multilevel analyses to handle the nested structure of experience sample datasets; wrote and revised a significant portion of the manuscript (second author).

## **Clinical Psychology Master's Program Student**

Department of Psychology, Korea University  
Advisor: Young-gun Ko, Ph.D.

Sep. 2015  
– Feb.  
2018

### **Project: Implicit Accommodation and Romantic Relationship Longevity**

- Longitudinal study to compare the predictive powers of implicit and explicit accommodative behaviors
- Developed behavioral measure to assess implicit accommodation using automatic facial reactions to partner's angry face; Employed automatic facial coding algorithm to evaluate valence of facial responses; Delivered presentation at conference; Wrote manuscript (first author).

## **CLINICAL & PRACTICE EXPERIENCE**

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### **Clinical Researcher Assistant**

Student Counseling Center, Korea University  
Principal Investigator: Young-gun Ko, Ph.D.

Feb. 2019  
– Sep.  
2019

### **Project: Mental Fitness Program: Positive Psychotherapy**

- Psycho-educative intervention to enhance mental well-being and optimal functioning in daily lives
- Provided group therapy for college students (*26 sessions / 75 min., 3 groups*), romantic couples and singles (*8 sessions, 8 groups, 150 minutes each*), and Junior High School Students (*12 sessions / 50 min., 1 group*) and individual therapy (*12 sessions / 50 min.*).
- Created online psychological assessment reports using *R shiny*; Developed mobile/P.C. App to train positive dialogue using *Google Natural Language API, Firebase, and R Shiny*; Built dashboard for teachers to monitor the peer relationship of students.

*\*Awarded as the leader with the highest score on client evaluation for two semesters (2015, 2016).*

*\* Though I participated in the Mental Fitness Project consistently while collaborating with Dr. Ko from 2015 to 2019, all relevant information was listed above for the convenience of space.*

**Clinical Practicum Student**

Department of Psychology, Korea University; Department of Psychiatry, CHA Bundang Medical Center

Supervisor: Eunjoo Yang, Ph.D., Kihye Sung, licensed clinical psychologist

Oct. 2015  
– July.  
2017

- Participated in clinical practicum – Provided group therapy for college students (*12 sessions / 75 min., 8 students*), psychiatric inpatients (*3 sessions / 50 min., 3 groups*), and individual therapy (*10 sessions, 50 min.*); Observed full batteries of diagnostic assessments, group therapy and weekly morning seminars.

**Project Manager**

Mentoring Counseling Center of College of Liberal Arts at Korea University

Advisor: Young-gun Ko, Ph.D.

Oct. 2015  
– Feb.  
2018

**Project: The CORE Psychological Assessments for Personality and Aptitude of College Students**

- Government-funded psychological services to improve adjustment of college students.
- Managed budget over \$100,000 for 2.5 years; Organized whole projects with +1,200 participants; Designed assessment packages; Conducted and provided +150 individual interpretation sessions.

**TEACHING & MENTORING EXPERIENCE**

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- Assistant lecturer for *Life Designing and Self Understanding (SPGE208)* at Korea University – led weekly discussion classes: 20-25 students/class in the Spring Semesters of 2017-2019 with: Eunjoo Yang, Ph.D.
- Hosted R programming and advanced statistics workshops for:
  - (Mar. 2020) Administrative officers: 5 sessions / 60 min.
  - (Feb. 2020) Licensed psychologists: 6 sessions / 75 min.
  - (Feb. 2018 / Mar. 2019) Psychology undergraduate and graduate students: 10 sessions in total / 75 min.
- Provided research mentorship for undergraduate researchers of UMA, an undergraduate research association funded by the Korean Psychological Association in 2016-2019 and 2021

**ADDITIONAL & VOLUNTEER ACTIVITIES**

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- President of the breakdancing team (WACK) – won two community b-boying contests
- Vice president of the student association of the Seoul Foreign Language High School
- Participated in the Student Welfare Committee (KU-Well) – organized and managed student welfare programs
- Participated in the Korea University Buddy Assistant (KUBA) – helped exchange students adjust to Korean culture and campus life
- Serviced for two years as an academic secretary of the Mental Fitness Positive Psychology Research Association under the Korea Clinical Psychology Association
- Enthusiastic scuba diver; dived in Iceland, Great Barrier Reef, Fiji, and the Philippines.

## PROFESSIONAL SKILLS

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### **Statistical Software & Programming Languages**

R, Python, SQL, HTML, Markdown, JavaScript, Latex, Matlab, Linux, Git, NetLogo, M-Plus.

### **Statistical Analysis**

Multilevel models, structural equation models (SEM), factor analyses, generalized regression models, social network analyses, actor-partner interdependent models (APIM), ecological diversity analyses, Bayesian analyses, bootstrapping.

### **Machine Learning & Deep Learning Frameworks**

Dimension reduction, Natural Language Processing (NLP), predictive modeling, time serial analyses, graph analytics, network representation learning, recommendation system, Pytorch, Tensorflow, Scikit-learn, Stellargraph, Genism, Tidymodels.

### **Data Visualization Tools**

R Shiny, Plotly/Dash, Gephi, Tableau, Power BI, Adobe Photoshop.

### **Language**

Korean (*native*), English (*proficient*), Japanese (*Intermediate*)