# **Yoonwon Jung**

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# RESEARCH INTERESTS

Relationship between language and emotion, Affective robotics

# **EDUCATION**

**Ph.D.** Cognitive Science

2023 – 2028 (Expected)

UC San Diego

California, USA

Advisor: Benjamin Bergen, Ph.D.

M.A. Psychology

2020 - 2022

Seoul National University

Seoul, Korea

Advisor: Sowon Hahn, Ph.D.

Thesis: "Social robots as companions for lonely hearts: The role of anthropomorphism and robot

appearances"

**B.A.** Psychology

2016 - 2020

Seoul National University

Seoul, Korea

Summa Cum Laude

Departmental First-Class Distinction (1/31)

**Exchange Student** 

Fall 2018

Boston College

Massachusetts, USA

# **PUBLICATIONS**

#### **Journal Articles**

Kim, JW., Jung, Y., Lee, YK., & Hahn, S. (2023). The relationship between perspective-taking ability and psychological and emotional characteristics observed in a large emotion diary dataset: A cluster analysis. *Korean Journal of Health Psychology*, 28(1), 1-25, 10.17315/kjhp.2023.28.1.001. [pdf]

# **Conference Proceedings**

- **Jung, Y.,** & Hahn, S. (2023). Social Robots As Companions for Lonely Hearts: The Role of Anthropomorphism and Robot Appearance. 2023 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN), 2520–2525. <a href="https://doi.org/10.1109/RO-MAN57019.2023.10309617">https://doi.org/10.1109/RO-MAN57019.2023.10309617</a>. [pdf]
- Lee YK., **Jung, Y.**, Kang, K., & Hahn, S. (2023). Developing Social Robots with Empathetic Non-Verbal Cues Using Large Language Models. Late Breaking Report at 2023 32<sup>nd</sup> IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023). [pdf]
- **Jung, Y.**, Lee, YK., & Hahn, S. (2021). Web-scraping the Expression of Loneliness during COVID-19. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43. <u>https://escholarship.org/uc/item/53m546pq</u>.
- Lee, YK., **Jung, Y.**, Lee, I., Park, JE., & Hahn, S. (2021). Building a Psychological Ground Truth Dataset with Empathy and Theory-of-Mind During the COVID-19 Pandemic. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43. <a href="https://escholarship.org/uc/item/950900w7">https://escholarship.org/uc/item/950900w7</a>.

# **Unpublished Manuscripts**

- **Jung, Y.**, Lee, Y & Hahn, S. Age and gender differences in loneliness during the COVID-19: Analyses on large cross-sectional surveys and emotion diaries [Unpublished manuscript]. PsyArXiv. [pdf]
- Lee, YK., Lee, I., Park, J. E., **Jung, Y.**, Kim, J., & Hahn, S. A Computational Approach to Measure Empathy and Theory-of-Mind from Written Texts [Unpublished manuscript]. arXiv:2108.11810. [pdf]

#### CONFERENCE PRESENTATIONS

#### **Oral Presentations**

[Presenter] Jung, Y., & Hahn, S. (2023). Social robots as companions for lonely hearts: The role of anthropomorphism and robot appearance. 2023 32nd IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023). Busan, Republic of Korea.

#### **Poster Presentations**

- [Presenter] Lee YK., Jung, Y., Kang, K., & Hahn, S. (2023). Developing Social Robots with Empathetic Non-Verbal Cues Using Large Language Models. 2023 32<sup>nd</sup> IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2023). Busan, Republic of Korea. [pdf]
- [Presenter] Jung, Y., Jung, S., Hahn, S. (2023). The effect of emotional clarity on mental health: the role of emotion regulation. *The 13<sup>th</sup> International Conference on Cognitive Science*. Seoul, Republic of Korea. [pdf]
- [Presenter] Jung, Y., Lee, YK., & Hahn, S. (2021). Age and gender differences in loneliness during the COVID-19: Analyses on large cross-sectional surveys and emotion diaries. *The Annual Conference of Korean Cognitive Science Society*, Seoul, Republic of Korea (Virtual). [pdf]
- [Presenter] Jung, Y., Lee, YK., & Hahn, S. (2021). Web-scraping the Expression of Loneliness during COVID-19. *The 42<sup>nd</sup> Annual Meeting of the Cognitive Science Society*, Vienna, Austria (Virtual). [pdf]
- Lee, YK., **Jung, Y.**, Lee, I., Park, JE., & Hahn, S. (2021). Building a Psychological Ground Truth Dataset with Empathy and Theory-of-Mind During the COVID-19 Pandemic. *The 42<sup>nd</sup> Annual Meeting of the Cognitive Science Society*, Vienna, Austria (Virtual).

#### TALKS AND WORKSHOPS

- Social Robots as Companions for Lonely Hearts: The Role of Anthropomorphism and Robot Appearance, Invited talk at the Cogsci 2023 Seoul Local Meetup. Jul. 2023. [link]
- **Web-scraping & Topic Models,** Open Lab Talk hosted by Human Factors Psychology Lab (Seoul National University). Aug. 2021. [link]
- **Loneliness & Web-scraping**, Open Lab Talk hosted by Human Factors Psychology Lab (Seoul National University). Jan. 2021. [link]

# FELLOWSHIPS AND GRANTS

- **Fellowship for Overseas Ph.D. students**, *KFAS (Korea Foundation for Advanced Studies)*. 2023 2028 (Expected). \$13,000/year
- **Fellowship for Oversears Ph.D. program applicants**, KFAS (Korea Foundation for Advanced Studies). 2022-2023. 5,000,000 won (\$5000)

- SNU Social Sciences Research Grant for Graduate Students, Seoul National University. 2021. 3,000,000 won (\$3,000)
- **Social Science Research Grant for Undergraduates,** Seoul National University. 2019. 1,500,000 won (\$1,500)
- **Special Research Grant for Undergraduates: Exploration on Value and Practice,** *Seoul National University.* 2019. 3,000,000 won (\$3,000)

#### AWARDS AND SCHOLARSHIPS

**Graduate Scholarship for Academic Excellence (Biannual)**, *Seoul National University*. Spring 2021.

Summa Cum Laude, Departmental First-Class Distinction(1/31), Seoul National University. 2020.

**Undergraduate Scholarship for Academic Excellence (Annual)**, *Yongin Human Resources Development Foundation*. 2016, 2017, 2019

**Undergraduate Scholarship for Academic Excellence (Biannual)**, *Seoul National University*. Spring 2016, Fall 2016, Spring 2017, Spring 2018.

#### GRADUATE RESEARCH EXPERIENCE

Language and Cognition Lab (PI: Benjamin Bergen, Ph.D.) UC San Diego, 2023 – Present.

i. Started a project on cultural diversities in emotion word semantics

Human Factors Psychology Lab (PI: Sowon Hahn, Ph.D.) Seoul National University, 2020 - 2023

i. Launched and led three collaborative projects

The effect of promoting higher emotional clarity on neuroticism and well-being: the mediating effect of emotion regulation. Jul. 2022 – Present.

Age and gender differences in loneliness during COVID-19: Analyses on large cross-sectional surveys and emotion diaries. Apr. 2021 – Aug. 2022.

Web-scraping the Expression of Loneliness during COVID-19. Nov. 2020 – Jul. 2021.

ii. Participated in three funded research projects

**SNU Diversity Council 2030 Development Plan Establishment Study,** *Seoul National University Diversity Council*. Oct. 2021 – Feb. 2022.

• Evaluated shortcomings of current Seoul National University diversity policies and investigated examples of the strong diversity policies, which laid a foundation for designing the future 10-year diversity policy of Seoul National University

AI-based Online Personal Psychological Monitoring & Management System. Seoul Business Agency, Dec. 2020 – Feb. 2022.

- Developed CBT (Cognitive-Behavioral Therapy) and RT (Reality Therapy) based human-chatbot dialogue flows
- Built approx. 1000 training datapoints for training chatbot model

# COVID-19 Psychological-Aid Dataset: Implications of Psychological Theory of Personality, Empathy, and Loneliness. *Kdata*, Sep. 2020 – Dec. 2020.

- Participated in designing and collecting the dataset that consists of 7,000 responses on psychological variables and 30,000 diary entries
- Designed and led 8 workshop sessions to instruct the data labelers on how to label theory-of-mind levels of the sentences from the given text data

Last modified: Nov 14, 2023

• Inspected approx. 8000 labeled text entries to ensure the accuracy of the sentence-level labels

# UNDERGRADUATE RESEARCH EXPERIENCE

Human Factors Psychology Lab (PI: Sowon Hahn, Ph.D.) Seoul National University. 2019 - 2020.

- Conducted literature reviews on factors affecting trust in Human-AI interactions
- Preprocessed data for statistical analyses using Excel and R

#### TEACHING EXPERIENCE

[Teaching Assistant] Introduction to Psychology, Seoul National University. Spring 2021.

- Led weekly group discussions and workshops (Virtual, in English)
- Graded essays and exam responses of 80 students

# **WORK EXPERIENCE**

[Editorial Secretary] Korean Journal of Cognitive Science, The Korean Society for Cognitive Science, Jan. 2022 – Jan. 2023.

• Managed the journal's review and quarterly publication processes

[Intern] C.lab (Startup Incubation Program), Samsung Electronics. Jun. 2019 – Aug. 2019.

- Worked for HAXBY (AI-based math learning assisting application) team
  - O Designed the user experience (UX) of application pages providing math assistance and user analysis results for better usability for both students and teachers
  - Assisted in-person user test with a prototype and analyzed the limitations of the current functions and designs of the app

#### **SKILLS**

Language

**Korean** Native proficiency

**English** Full professional proficiency (GRE: V163/Q170/W4.5)

**Programming & Data Analysis** 

**Python** Preprocessing (pandas, numpy, nltk, spaCy), Web-scraping (BeautifulSoup, selenium,

requests), Machine learning & Deep learning (gensim, pytorch, huggingface), Visualization (matplotlib), Large Language Models (OpenAI api, LangChain)

**R** Preprocessing (dplyr), Statistical analyses (psych, sem), Visualization (ggplot2)

#### REFERENCES

Benjamin Bergen, Ph.D. Ph.D. Advisor bkbergen@ucsd.edu

Department of Cognitive Science, UC San Diego, California, USA.

Sowon Hahn, Ph.D. Master's Advisor <u>swhahn@snu.ac.kr</u>

Department of Psychology, Seoul National University, Seoul, Republic of Korea.