Ihnwhi Heo

Curriculum Vitae in January 2025

Contact Information

School of Social Sciences, Humanities and Arts
University of California, Merced
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Education

University of California, Merced, USA — May 2026 (Expected)
Ph.D. Candidate in Quantitative Methods, Measurement, and Statistics
Advisors: Dr. Sarah Depaoli and Dr. Fan Jia

Utrecht University, The Netherlands — July 2021
M.Sc. in Methodology and Statistics, *Cum Laude*
Thesis: *All models are uncertain, but averaging is useful: Bayesian multi-model inference in structural equation models with bridge sampling*
Supervisor: prof. dr. Eric-Jan Wagenmakers (University of Amsterdam)

Sungkyunkwan University, South Korea — August 2019
B.A. in Psychology, *Highest Honors*

Fellowships and Awards

Awarded by Universities

- Outstanding Graduate Student Award, University of California, Merced — 2024
- Publication Award in Quantitative Psychology, University of California, Merced — 2024
- Graduate Student Opportunity Program Fellowship, University of California, Merced — 2022-2023
- Graduate Student Association Travel Award, University of California, Merced — 2023
- William R. Shadish Award for Leadership and Service, University of California, Merced — 2022
- Summer Research Award, University of California, Merced — 2022, 2023, 2024
- Professional Development Award, University of California, Merced — 2021, 2022, 2023, 2024
- Utrecht Excellence Scholarship, Utrecht University — 2019-2021
- Presidential Award for Best Scholarly Achievement, Sungkyunkwan University — 2019
- Best Undergraduate Research Project Award, Sungkyunkwan University — 2018
- Alumni Scholarship for Students with Research Potential, Sungkyunkwan University — 2018
- Academic Achievement Scholarship, Sungkyunkwan University — 2018
- Academic Excellence Scholarship, Sungkyunkwan University — 2016, 2017, 2018

Awarded by Professional Organizations

- Scholarship for GESIS Summer School, European Survey Research Association — 2020

Peer-Reviewed Articles

6. **Heo, I.**, Pfadt, J. M., & Wagenmakers, E.–J. (2024). Contributed discussion of "Sparse Bayesian factor analysis when the number of factors is unknown". *Bayesian Analysis.* Advance online publication. https://doi.org/10.1214/24-BA1423.

5. **Heo, I.**, Depaoli, S., Jia, F., & Liu, H. (2024). Bayesian approach to piecewise growth mixture modeling: Issues and applications in school psychology. *Journal of School Psychology, 107.* 101366. https://doi.org/10.1016/j.jsp.2024.101366

4. **Heo, I.**, Jia, F., & Depaoli, S. (2024). Performance of model fit and selection indices for Bayesian piecewise growth modeling with missing data. *Structural Equation Modeling: A Multidisciplinary Journal, 31*(3). 455-476. https://doi.org/10.1080/10705511.2023.2264514

3. Depaoli, S., Jia, F., & **Heo, I.** (2023). Detecting model misspecification in Bayesian piecewise growth models. *Structural Equation Modeling: A Multidisciplinary Journal, 30*(4). 574-591. https://doi.org/10.1080/10705511.2022.2144865

2. **Heo, I.**, Jia, F., & Depaoli, S. (2023). Book review of *Longitudinal structural equation modeling with Mplus: A latent state-trait perspective* by Geiser. *Psychometrika, 88*(2), 733-737. https://doi.org/10.1007/s11336-022-09897-z

1. Liu, R., **Heo, I.**, Liu, H., Shi, D., & Jiang, Z. (2023). Applying negative binomial distribution in diagnostic classification models for analyzing count data. *Applied Psychological Measurement, 47*(1), 64-75. https://www.doi.org/10.1177/01466216221124604

Submitted Articles

5. **Heo, I.**, Simons, J.–W., & Liu, H. (2024). *Bayesian model averaging in exponential random graph models* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.

4. **Heo, I.**, Jia, F., & Depaoli, S. (2024). *Recovering knot placements in Bayesian piecewise growth models with missing data* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.

3. Liu, H., **Heo, I.**, Depaoli, S., & Ivanov, A. (2024). *Parameter recovery for misspecified latent mediation models in the Bayesian framework* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.

2. Liu, H., **Heo, I.**, Ivanov, A., & Depaoli, S. (2024). *Model assumption violations in Bayesian latent mediation analysis: An exploration of Bayesian SEM fit indices and PPP* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.

1. **Heo, I.**, Liu, R., Liu, H., Depaoli, S., & Jia, F. (2024). *A note on latent state-trait theory framework in piecewise growth models* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.

Tutorials

11. Koch, M., **Heo, I.**, & van Kesteren, E. J. (2022). Latent growth curve modeling (LGCM) in JASP. *JASP - A Fresh Way to Do Statistics*. https://jasp-stats.org/2022/02/22/latent-growth-curve-modeling-lgcm-in-jasp/

10. Koch, M., **Heo, I.**, & van Kesteren, E. J. (2022). Multiple indicators multiple causes (MIMIC) model in JASP. *JASP - A Fresh Way to Do Statistics*. https://jasp-stats.org/2022/02/01/multiple-indicators-multiple-causes-mimic-model-in-jasp/

9. **Heo, I.**, & van de Schoot, R. (2020). Tutorial: Advanced Bayesian regression in jamovi. *Zenodo*. https://doi.org/10.5281/zenodo.4117883

8. **Heo, I.**, & van de Schoot, R. (2020). Tutorial: jamovi for Bayesian analyses with default priors. *Zenodo*. https://doi.org/10.5281/zenodo.4117881

7. **Heo, I.**, & van de Schoot, R. (2020). Tutorial: jamovi for beginners. *Zenodo*. https://doi.org/10.5281/zenodo.4008372

6. **Heo, I.**, & van de Schoot, R. (2020). Tutorial: WAMBS Checklist in JASP (using JAGS). *Zenodo*. https://doi.org/10.5281/zenodo.4001365

5. **Heo, I.**, & van de Schoot, R. (2020). Tutorial: JASP for Bayesian analyses with informative priors (using JAGS). *Zenodo*. https://doi.org/10.5281/zenodo.4032756

4. **Heo, I.**, & van de Schoot, R. (2020). Tutorial: Advanced Bayesian regression in JASP. *Zenodo*. https://doi.org/10.5281/zenodo.3991325

3. **Heo, I.**, Veen, D., & van de Schoot, R. (2020). Tutorial: JASP for Bayesian analyses with default priors. *Zenodo*. https://doi.org/10.5281/zenodo.4008338

2. **Heo, I.**, Veen, D., & van de Schoot, R. (2020). Tutorial: JASP for beginners. *Zenodo*. https://doi.org/10.5281/zenodo.4008279

1. **Heo, I.**, Veen, D., & van de Schoot, R. (2020). Tutorial: R for beginners. *Zenodo*. https://doi.org/10.5281/zenodo.3963824

Peer-Reviewed Conference Presentations

8. **Heo, I.**, Jia, F., & Depaoli, S. (2024, May 23-26). Advances in detecting misfit in Bayesian piecewise growth curve models. In H. Liu (Chair) & S. Depaoli (Discussant), *Model fit assessment of Bayesian structural equation modeling* [Symposium]. 36th Annual Convention of the Association for Psychological Science, San Francisco, CA, USA.

7. Liu, H., **Heo, I.**, Ivanov, A., & Depaoli, S. (2024, May 23-26). Misspecification in Bayesian latent mediation analysis: An exploration of Bayesian fit and comparison fit indices. In H. Liu (Chair) & S. Depaoli (Discussant), *Model fit assessment of Bayesian structural equation modeling* [Symposium]. 36th Annual Convention of the Association for Psychological Science, San Francisco, CA, USA.

6. Jauregui, M., **Heo, I.**, Depaoli, S., & Liu, H. (2024, May 23-26). *The final class model depends on the index: Exploring Bayesian model fit index performance in growth mixture modeling* [Poster presentation]. 36th Annual Convention of the Association for Psychological Science, San Francisco, CA, USA.

5. **Heo, I.**, Jia, F., & Depaoli, S. (2023, March 15-17). *On evaluating the performance of model fit and selection indices for Bayesian piecewise growth modeling: The effect of model misspecification and missing data* [Paper presentation]. Structural Equation Modeling Working Group Conference, Bielefeld, Germany.

4. **Heo, I.**, Jia, F., & Depaoli, S. (2023, March 9-11). *Detecting model misspecification in Bayesian piecewise growth models with missing data: Sensitivity of model fit and selection indices* [Poster presentation]. 4th International Convention of Psychological Science, Brussels, Belgium.

3. **Heo, I.**, & Liu, R. (2023, March 9-11). Analyzing ordinal data to classify individuals and track their changes using polytomous diagnostic classification modeling: A Bayesian hidden Markov approach [Poster presentation]. 4th International Convention of Psychological Science, Brussels, Belgium.

2. **Heo, I.**, Jia, F., & Depaoli, S. (2022, May 26-29). *Bayesian model fit and selection indices for detecting misspecification: The case of Bayesian piecewise growth modeling* [Poster presentation]. 34th Annual Convention of the Association for Psychological Science, Chicago, IL, USA.

1. Liu, R., **Heo, I.**, Liu, H., Shi, D., & Jiang, Z. (2022, April 21-26). *Diagnostic classification models for analyzing examinees' responses to a large number of small and similar tasks* [Paper presentation]. 106th Annual Meeting of the American Educational Research Association, San Diego, CA, USA.

Institutional Presentations

8. **Heo, I.** (2024, September 11). *Deep learning-based multiple imputation robust to missing data mechanisms in structural equation modeling.* Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

7. **Heo, I.** (2024, March 6). *On the advance and promise of analyzing psychological text data.* Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

6. **Heo, I.** (2023, September 27). *A gentle introduction to Monte Carlo simulation methods using R and Mplus.* Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

5. **Heo, I.** (2023, September 13). *On the recovery of knot locations for Bayesian piecewise growth modeling with missing data.* Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

4. **Heo, I.** (2023, January 25). *The latest update on the performance of model comparison tools in Bayesian structural equation modeling*. Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

3. **Heo, I.** (2022, April 29). *The impact of model misspecification and missing data on Bayesian piecewise growth modeling*. Annual First-Year Research Talk, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

2. **Heo, I.** (2021, October 27). *Bayesian multi-model inference in structural equation models with bridge sampling*. Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

1. **Heo, I.** (2018, November 9). *The paradox in goal pursuit: Preference reversal when means justifies ends*. Annual Research Presentation, Department of Psychology, Sungkyunkwan University, Seoul, South Korea.

Teaching Experience

Department of Psychological Sciences, University of California, Merced

- Guest Lecturer
  - PSY 202A: Advanced Psychological Statistics I (graduate) — Fall 2024
    - Introduction to R and RStudio
    - Introduction to `tidyverse` and R Markdown
    - Summarizing and Visualizing Data Using R
    - Regression Analysis and ANOVA Using R
  - PSY 202B: Advanced Psychological Statistics II (graduate) — Spring 2024, 2025
    - Confirmatory Factor Analysis, Path Analysis, and Structural Equation Modeling Using M*plus*
    - Multilevel Modeling Using M*plus*
  - ECON 271: Economics and Data Science (graduate) — Spring 2025
    - Latent Dirichlet Allocation for Text Mining and Broader Applications of Machine Learning
- Lab Instructor
  - PSY 010: Analysis of Psychological Data (undergraduate) — Fall 2021, Spring 2022, 2025
  - PSY 015: Research Methods in Psychology (undergraduate) — Fall 2023

Department of Methodology and Statistics, Utrecht University

- Lab Instructor
  - Advanced Research Methods and Statistics for Psychology (bachelor) — Spring 2020
- Lab Assistant
  - Advanced Longitudinal Modeling in M*plus* (master) — Summer 2021
  - Introduction to Structural Equation Modeling Using M*plus* (master) — Summer 2021

Ad Hoc Reviewing

Journals

- *Multivariate Behavioral Research*
- *Psychological Methods*
- *Structural Equation Modeling: A Multidisciplinary Journal*

Conferences

- American Educational Research Association - Division D
- National Council on Measurement in Education

Institutional Service

University of California, Merced

- Member, Faculty Search Committee in Quantitative Psychology — 2023-2024
- Manager, Quantitative Program 𝕏 Account @UCM_QuantPsych — 2023-2025
- Panelist, Psi Chi Graduate Student Panel — 2021, 2023, 2024