Ihnwhi Heo

Curriculum Vitae, November 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
Dissertation: *Advanced methods for implementation of Bayesian growth mixture modeling*
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*

AWARDS AND FELLOWSHIPS

Professional Organizations
- SMEP Travel Award, Society of Multivariate Experimental Psychology — 2025
- Nomination for Open Science Award, Open Science Community Utrecht — 2024
- Scholarship for GESIS Summer School, European Survey Research Association — 2020

Universities
- Outstanding Teaching Award, University of California, Merced — 2025
- Distinguished Graduate Student Speaker Award, University of California, Merced — 2025
- Psychological Sciences Dissertation Fellowship, University of California, Merced — 2025
- Outstanding Graduate Student Award, University of California, Merced — 2024–2025
- Publication Award in Quantitative Psychology, University of California, Merced — 2024–2025
- 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 Fellowship, University of California, Merced — 2022–2025
- Professional Development Award, University of California, Merced — 2021–2024
- Utrecht Excellence Scholarship, Utrecht University — 2019–2021
- Presidential Award for Scholarly Excellence, Sungkyunkwan University — 2019
- Best Undergraduate Research Project Award, Sungkyunkwan University — 2018
- Alumni Scholarship for Academic and Research Excellence, Sungkyunkwan University — 2018
- Academic Achievement Scholarship, Sungkyunkwan University — 2018
- Academic Excellence Scholarship, Sungkyunkwan University — 2016–2018

GRANTS

3. **Principal Investigator (2025–2026)**: The project "*Advanced methods for implementation of Bayesian growth mixture modeling*" was awarded $4,999 from the American Psychological Association (APA) Dissertation Research Fund.

2. **Principal Investigator (2025–2026)**: The project "*Advanced methods for implementation of Bayesian growth mixture modeling*" was awarded $2,824 from the Society of Multivariate Experimental Psychology (SMEP) Dissertation Research Grant.

1. **Collaborator (2023–2025)**: The project "*Bayesian model averaging for structural equation models*" was awarded €48,000 from the German Research Foundation (DFG) Walter Benjamin Grant. The principal investigator is Dr. Julius M. Pfadt, University of Amsterdam.

PEER-REVIEWED ARTICLES

12. Depaoli, S., **Heo, I.**, Jauregui, M., Liu, H., & Jia, F. (2025). A comprehensive evaluation of model selection indices for class enumeration in Bayesian latent growth mixture models. *Structural Equation Modeling: A Multidisciplinary Journal*. Advance online publication. https://doi.org/10.1080/10705511.2025.2566135

11. **Heo, I.**, Simons, J.-W., & Liu, H. (2025). A tutorial on Bayesian model averaging for exponential random graph models. *British Journal of Mathematical and Statistical Psychology*. Advance online publication. https://doi.org/10.1111/bmsp.70007

10. **Heo, I.**, Liu, R., Liu, H., Depaoli, S., & Jia, F. (2025). A study of latent state-trait theory framework in piecewise growth models. *Applied Psychological Measurement*. Advance online publication. https://doi.org/10.1177/01466216251360565

9. **Heo, I.**, Jia, F., & Depaoli, S. (2025). Recovering knot placements in Bayesian piecewise growth models with missing data. *Behavior Research Methods, 57*(7). 1–27. https://doi.org/10.3758/s13428-025-02716-0

8. Liu, H., **Heo, I.**, Ivanov, A., & Depaoli, S. (2025). Model assumption violations in Bayesian latent mediation analysis: An exploration of Bayesian SEM fit indices and PPP. *Structural Equation Modeling: A Multidisciplinary Journal, 32*(5). 866–896. https://doi.org/10.1080/10705511.2025.2503789

7. Liu, H., **Heo, I.**, Depaoli, S., & Ivanov, A. (2025). Parameter recovery for misspecified latent mediation models in the Bayesian framework. *Structural Equation Modeling: A Multidisciplinary Journal, 32*(4). 618–637. https://doi.org/10.1080/10705511.2025.2475490

6. **Heo, I.**, Pfadt, J. M., & Wagenmakers, E.-J. (2025). Contributed discussion of "Sparse Bayesian factor analysis when the number of factors is unknown". *Bayesian Analysis, 20*(1). 295–296. 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

MANUSCRIPTS UNDER REVIEW

3. Pfadt, J. M., Bartoš, F., Godmann, H. R., Waaijers, M., Groot, L., **Heo, I.**, Mensink, L., Nak, J., de Ruiter, J. P., Sarafoglou, A., Siepe, B., Arena, G., Akrong, E., Aust, F., van den Bergh, D., Brenner, W., Doekemeijer, R., Donzallaz, M. C., van Doorn, J., Echevarria, N. O., Finneman, A., Geller, G., Hato, T., Koskinen, E., Krijgsman, B., Kulbe, L., Lüken, M., Marsman, M., Ott, V. L., Pawel, S., Piestrak, O., de Ron, J., Sekulovski, N., Serry, M., Stefanów, A., Stevenson, N., Sadowski, B., Sopuch, M., Vasileiou, A., Visser, I., Völler, M., Wiechert, S., de Wit, K., Wuth, J., & Wagenmakers, E.-J. (submitted). A methodological metamorphosis: The rapid rise of Bayesian inference and open science practices in psychology. *PsyArXiv.* https://doi.org/10.31234/osf.io/ck3js_v1

2. Peña, M., **Heo, I.**, Depaoli, S., & Zawadzki, M. J. (submitted). Identifying screening-level predictors of enrollment in a mobile mindfulness meditation trial: A Bayesian model-averaged logistic regression approach. *JMIR Preprints.* https://preprints.jmir.org/preprint/86696

1. Jia, F., **Heo, I.**, Depaoli, S., & Li, Y. (revise & resubmit). Latent mediation analysis with missing data: A comparison of Bayesian SEM and Monte Carlo–adjusted frequentist approaches.

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

CONFERENCE PRESENTATIONS

10. **Heo, I.**, Jia, F., & Depaoli, S. (2025, October 22–25). *Bayesian variable selection in growth mixture models via shrinkage priors: Performance evaluation and practical guidelines* [Poster presentation]. 65th Annual Meeting of the Society of Multivariate Experimental Psychology, Notre Dame, IN, USA.

9. **Heo, I.**, Simons, J.-W., & Liu, H. (2025, August 7–9). *A Bayesian multi-model inferential approach to exponential random graph modeling* [Poster presentation]. 133rd Annual Convention of the American Psychological Association, Denver, CO, USA.

8. **Heo, I.**, Jia, F., & Depaoli, S. (2025, May 22–25). *When will change: A nuanced understanding of turning points through Bayesian piecewise growth models* [Flash talk]. 37th Annual Convention of the Association for Psychological Science, Washington, DC, USA.

7. **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.

6. 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.

5. 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.

4. **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.

3. **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.

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

11. **Heo, I.** (2025, December 10). *Next-generation methodological innovations: Evidence, insights, and prospects.* Psychological Sciences Distinguished Graduate Speaker Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

10. **Heo, I.** (2025, September 24). *Bayesian model averaging for exponential random graph models: Theoretical framework and empirical illustration.* Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

9. **Heo, I.** (2025, February 5). *Evaluating Bayesian informative hypotheses in latent growth models using JASP.* Quantitative Methods, Measurement, and Statistics Brownbag Series, Department of Psychological Sciences, University of California, Merced, Merced, CA, USA.

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**

Department of Psychological Sciences, University of California, Merced
- Instructor of Record
  - PSY 010: Analysis of Psychological Data (undergraduate) Spring 2026

- Guest Lecturer
  - PSY 010: Analysis of Psychological Data (undergraduate) Spring 2025
    * Interval Estimation with Confidence Intervals
  - PSY 202A: Advanced Psychological Statistics I (graduate) Fall 2024
    * Introduction to R and RStudio
    * Introduction to the tidyverse and R Markdown
    * Summarizing and Visualizing Data in R
    * Regression Analysis and ANOVA in R
  - PSY 202B: Advanced Psychological Statistics II (graduate) Spring 2024, 2025
    * Confirmatory Factor Analysis, Path Analysis, and Structural Equation Modeling in M*plus*
    * Multilevel Modeling in M*plus*
  - ECON 271: Economics and Data Science (graduate) Spring 2025
    * Advanced Data Science Tools for Applied Economic Research

- 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

PEDAGOGICAL TRAINING

Center for Engaged Teaching and Learning, University of California, Merced
- Certificate in *Advanced Pedagogy* (one-semester faculty teaching preparation series) — Spring 2023
- Certificate in *Principles of Pedagogy* (one-semester research-based teaching series) — Fall 2022
- Certificate in *Fundamentals of Teaching* (one-week training in inclusive teaching) — Fall 2021

SERVICE TO PROFESSION

Ad Hoc Journal Reviewer
- *Advances in Methods and Practices in Psychological Science*
- *BMC Medical Research Methodology*
- *Multivariate Behavioral Research*
- *Psychological Methods*
- *Structural Equation Modeling: A Multidisciplinary Journal*

Ad Hoc Conference Reviewer
- American Educational Research Association–Division D
- National Council on Measurement in Education

Preprint Server Moderator
- PsyArXiv

INSTITUTIONAL SERVICE

University of California, Merced
Department Service
- Student Representative, Faculty Search Committee in Quantitative Psychology — 2023–2024
- Manager, Quantitative Program 𝕏 Account @UCM_QuantPsych — 2023–2026
- Panelist, Psi Chi Graduate Student Panel (Annual Event) — 2021–2025