Ihnwhi Heo

Curriculum Vitae in April 2025

Contact Information

School of Social Sciences, Humanities and Arts
University of California, Merced
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Merced, CA 95343, USA

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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*

Fellowships and Awards

Professional Organizations

- SMEP Dissertation Research Grant, 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 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 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 — 2018
- Academic Achievement Scholarship, Sungkyunkwan University — 2018
- Academic Excellence Scholarship, Sungkyunkwan University — 2016–2018

Peer-Reviewed Articles

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.* Advance online publication. 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

Submitted Articles

4. **Heo, I.**, Simons, J. W., & Liu, H. (2025). *A tutorial on Bayesian model averaging for exponential random graph models* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.

3. **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.

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

Conference Presentations

10. **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.

9. **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.

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

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

- Guest Lecturer
  - PSY 010: Analysis of Psychological Data (undergraduate) — Spring 2025
  - PSY 202A: Advanced Psychological Statistics I (graduate) — Fall 2024
  - PSY 202B: Advanced Psychological Statistics II (graduate) — Spring 2024, 2025
  - ECON 271: Economics and Data Science (graduate) — Spring 2025
- 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

- Certification in Advanced Pedagogy — Spring 2023
- Certification in Principles of Pedagogy — Fall 2022
- Certification in Fundamentals of Teaching — Fall 2021

Peer Review Experience

Journals

- *Advances in Methods and Practices in Psychological Science*
- *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

- 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 — 2021–2025