

# Ihnwhi Heo

## Curriculum Vitae in July 2025

CONTACT INFORMATION	School of Social Sciences, Humanities and Arts University of California, Merced 5200 North Lake Road Merced, CA 95343, USA	<a href="mailto:iheo2@ucmerced.edu">iheo2@ucmerced.edu</a> <a href="https://github.com/ihnwhiheo">ihnwhiheo.github.io</a> <a href="https://orcid.org/0000-0002-6123-3639">orcid.org/0000-0002-6123-3639</a> 
EDUCATION	<b>University of California, Merced, USA</b> Ph.D. Candidate in <a href="#">Quantitative Methods, Measurement, and Statistics</a> Dissertation: <i>Advanced methods for implementation of Bayesian growth mixture modeling</i> Advisors: Dr. <a href="#">Sarah Depaoli</a> and Dr. <a href="#">Fan Jia</a>  <b>Utrecht University</b> , The Netherlands M.Sc. in <a href="#">Methodology and Statistics</a> , <i>Cum Laude</i> Thesis: <i>All models are uncertain, but averaging is useful: Bayesian multi-model inference in structural equation models with bridge sampling</i> Supervisor: prof. dr. <a href="#">Eric-Jan Wagenmakers</a> (University of Amsterdam)  <b>Sungkyunkwan University</b> , South Korea B.A. in <a href="#">Psychology</a> , <i>Highest Honors</i>	May 2026 (Expected)  July 2021  August 2019
FELLOWSHIPS AND AWARDS	<b>Professional Organizations</b> <ul style="list-style-type: none"><li>SMEP Dissertation Research Grant, Society of Multivariate Experimental Psychology</li><li>Nomination for Open Science Award, Open Science Community Utrecht</li><li>Scholarship for GESIS Summer School, European Survey Research Association</li></ul> <b>Universities</b> <ul style="list-style-type: none"><li>Outstanding Graduate Student Award, University of California, Merced</li><li>Publication Award in Quantitative Psychology, University of California, Merced</li><li>Graduate Student Opportunity Program Fellowship, University of California, Merced</li><li>Graduate Student Association Travel Award, University of California, Merced</li><li>William R. Shadish Award for Leadership and Service, University of California, Merced</li><li>Summer Research Fellowship, University of California, Merced</li><li>Professional Development Award, University of California, Merced</li><li>Utrecht Excellence Scholarship, Utrecht University</li><li>Presidential Award for Scholarly Excellence, Sungkyunkwan University</li><li>Best Undergraduate Research Project Award, Sungkyunkwan University</li><li>Alumni Scholarship for Academic and Research Excellence</li><li>Academic Achievement Scholarship, Sungkyunkwan University</li><li>Academic Excellence Scholarship, Sungkyunkwan University</li></ul>	2025 2024 2020  2024–2025 2024–2025 2022–2023 2023 2022 2022–2025 2021–2024 2019–2021 2019 2018 2018 2018 2016–2018
PEER-REVIEWED ARTICLES	10. <b>Heo, I.</b> , Liu, R., Liu, H., Depaoli, S., & Jia, F. (2025). A study of latent state-trait theory framework in piecewise growth models. <i>Applied Psychological Measurement</i> . Advance online publication. <a href="https://doi.org/10.1177/01466216251360565">https://doi.org/10.1177/01466216251360565</a>  9. <b>Heo, I.</b> , Jia, F., & Depaoli, S. (2025). Recovering knot placements in Bayesian piecewise growth models with missing data. <i>Behavior Research Methods</i> , 57(7). 1–27. <a href="https://doi.org/10.3758/s13428-025-02716-0">https://doi.org/10.3758/s13428-025-02716-0</a>	

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*. Advance online publication. <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*. 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

3. Jia, F., **Heo, I.**, Depaoli, S., & Li, Y. (2025). *Latent mediation analysis with missing data: A comparison of Bayesian SEM and Monte Carlo-adjusted frequentist approaches* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.
2. 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* [Manuscript submitted for publication]. Department of Psychological Sciences, University of California, Merced.
1. **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.

#### 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

- Instructor of Record
  - PSY 010: Analysis of Psychological Data (undergraduate) Spring 2026
- 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, 2025, 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 *Mplus* (master) Summer 2021
  - Introduction to Structural Equation Modeling Using *Mplus* (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