### Ihnwhi Heo

### Curriculum Vitae in September 2025

Contact Information	School of Social Sciences, Humanities and Arts University of California, Merced 5200 North Lake Road Merced, CA 95343, USA	iheo2@ucmerced.edu ihnwhiheo.github.io orcid.org/0000-0002-6123-3639	
Education	University of California, Merced, USA Ph.D. Candidate in Quantitative Methods, Measurement, and Statistics Dissertation: Advanced methods for implementation of Bayesian growth mixture modelic Advisors: Dr. Sarah Depaoli and Dr. Fan Jia		May 2026 (Expected)
	Utrecht University, The Netherlands		July 2021
	M.Sc. in Methodology and Statistics, Cum Laude Thesis: All models are uncertain, but averaging is a equation models with bridge sampling Supervisor: prof. dr. Eric-Jan Wagenmakers (University)		in structural
	<b>Sungkyunkwan University</b> , South Korea B.A. in Psychology, <i>Highest Honors</i>		August 2019
Awards and Fellowships	<ul> <li>Professional Organizations</li> <li>APA Dissertation Research Award, American Psychological Association</li> <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>		2025 2025 2024 2020
	<ul> <li>Universities</li> <li>Psychological Sciences Dissertation Fellowship, U</li> <li>Outstanding Graduate Student Award, University</li> <li>Publication Award in Quantitative Psychology, U</li> <li>Graduate Student Opportunity Program Fellowsh</li> <li>Graduate Student Association Travel Award, Univ</li> <li>William R. Shadish Award for Leadership and Ser</li> <li>Summer Research Fellowship, University of Calif</li> <li>Professional Development Award, University of</li> <li>Utrecht Excellence Scholarship, Utrecht Universit</li> <li>Presidential Award for Scholarly Excellence, Sung</li> <li>Best Undergraduate Research Project Award, Sun</li> <li>Alumni Scholarship for Academic and Research F</li> <li>Academic Achievement Scholarship, Sungkyunkwa</li> <li>Academic Excellence Scholarship, Sungkyunkwa</li> </ul>	r of California, Merced niversity of California, Merced nip, University of California, Merced versity of California, Merced vice, University of California, Merced ornia, Merced California, Merced Cy gkyunkwan University gkyunkwan University Excellence, Sungkyunkwan University wan University	2025 2024-2025 2024-2025 2022-2023 2022 2022-2025 2021-2024 2019-2021 2019 2018 2018 2018 2016-2018

# ARTICLES

PEER-REVIEWED 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

- 2. 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.
- 1. 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.

#### **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-lgc m-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-mult iple-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/10.5 281/zenodo.3963824

**GRANTS** 

**Collaborator**, *Bayesian model averaging for structural equation models* Walter Benjamin Grant, German Research Foundation (DFG) Principal Investigator: Julius M. Pfadt (University of Amsterdam)

2023-2025

Funded

### 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

- 10. **Heo, I.** (2025, September 24). Bayesian model averaging for exponential random graph models: Theo-Presentations retical 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 • Instructor of Record			
	<ul> <li>PSY 010: Analysis of Psychological Data (undergraduate)</li> </ul>	Spring 2026		
	<ul> <li>Guest Lecturer</li> <li>PSY 010: Analysis of Psychological Data (undergraduate)</li> </ul>	Spring 2025		
	<ul> <li>Interval Estimation with Confidence Intervals</li> <li>PSY 202A: Advanced Psychological Statistics I (graduate)</li> <li>Introduction to R and RStudio</li> </ul>	Fall 2024		
	<ul> <li>Introduction to the tidyverse and R Markdown</li> <li>Summarizing and Visualizing Data in R</li> </ul>			
	<ul> <li>Regression Analysis and ANOVA in R</li> <li>PSY 202B: Advanced Psychological Statistics II (graduate)</li> <li>Confirmatory Factor Analysis, Path Analysis, and Structural Equat.</li> </ul>	Spring 2024, 2025		
	* Multilevel Modeling in M <i>plus</i>	ion modeling in mpus		
	<ul> <li>ECON 271: Economics and Data Science (graduate)</li> <li>* Advanced Data Science Tools for Applied Economic Research</li> </ul>	Spring 2025		
	• Lab Instructor			
	<ul><li>PSY 010: Analysis of Psychological Data (undergraduate)</li><li>PSY 015: Research Methods in Psychology (undergraduate)</li></ul>	Fall 2021, Spring 2022, 2025 Fall 2023		
	Department of Methodology and Statistics, Utrecht University			
	<ul> <li>Lab Instructor</li> <li>Advanced Research Methods and Statistics for Psychology (bachelor)</li> </ul>	Spring 2020		
	• Lab Assistant	0 0004		
	<ul> <li>Advanced Longitudinal Modeling in Mplus (master)</li> <li>Introduction to Structural Equation Modeling Using Mplus (master)</li> </ul>	Summer 2021 Summer 2021		
Pedagogical	Center for Engaged Teaching and Learning, University of California, Merced			
Training	<ul><li>Certification in Advanced Pedagogy</li><li>Certification in Principles of Pedagogy</li></ul>	Spring 2023 Fall 2022		
	Certification in Fundamentals of Teaching	Fall 2021		
SERVICE TO	Journal Reviewer			
Profession	<ul> <li>Advances in Methods and Practices in Psychological Science</li> <li>BMC Medical Research Methodology</li> </ul>			
	• Multivariate Behavioral Research			
	<ul><li> Psychological Methods</li><li> Structural Equation Modeling: A Multidisciplinary Journal</li></ul>			
	Conference Reviewer			
	<ul> <li>American Educational Research Association—Division D</li> <li>National Council on Measurement in Education</li> </ul>			
	Preprint Server Moderator • PsyArXiv			
Institutional Service	University of California, Merced Department Service			
JERVICE	<ul> <li>Student Representative, Faculty Search Committee in Quantitative Psyc</li> </ul>	chology 2023–2024		
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2023-2026

2021-2025

• Manager, Quantitative Program X Account @UCM\_QuantPsych

• Panelist, Psi Chi Graduate Student Panel