SONJA D. WINTER

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EDUCATION

University of California, Merced   *2016-present*
Doctoral (Ph.D.) Student, Psychological Sciences
Area of Study: Quantitative Methods, Measurement, and Statistics
Advisor: Associate Professor Sarah Depaoli

Utrecht University, the Netherlands   *2011-2013*
M.Sc. (Cum Laude), Psychology
Area of Study: Developmental Psychology
Advisor: Professor Jan Boom
Thesis: *What matters? The role of cognitive competence and affective beliefs in educational achievement during adolescence.*

Utrecht University, the Netherlands   *2008-2011*
B.Sc. (with honours), Psychology
Area of Study: Developmental Psychology
Advisor: Professor Geertjan Overbeek
Thesis: *Differential susceptibility? Interaction of the DRD4-7R polymorphism and parenting practices on aggressive and prosocial behaviour.*

FELLOWSHIPS & AWARDS

University of California, Merced
Will Shadish Graduate Student Fellowship   *2020*
Psychological Sciences Graduate Group Recruitment Fellowship   *2016*
Psychological Sciences Summer Support Fellowship   *2017-2020*
Psychological Sciences Research Dissemination Award   *2018-2020*
Psychological Sciences Jennifer Mendiola Travel Award   *2018*
Psychological Sciences William R. Shadish Award for Leadership and Service   *2019-2020*
Graduate Student Association Travel Award   *2018*

Journals
Article of the Year Award: Communication Methods and Measures Journal, for: *2015*
Possible solution to publication bias through bayesian statistics, including proper null hypothesis testing.

PUBLICATIONS

1. van de Schoot, R., Griffioen, E., & **Winter, S. D.** (in press). Dealing with imperfect elicitation results. In Hanea, A.M., Nane, G.F., Bedford, T., French, S. (Eds.), *Expert Judgment in Risk and Decision Analysis.* Basel: Springer International Publishing.

2. van de Schoot, R., Veen, D., Smeets, L., **Winter, S. D.**, & Depaoli, S. (2020). A Tutorial on Using The Wambs Checklist to Avoid The Misuse of Bayesian Statistics. In R. van de Schoot & M. Miočević

(Eds.), *Small Sample Size Solutions: A guide for applied researchers and practitioners* (pp. 30–49). London: Routledge. https://doi.org/10.4324/9780429273872-4

3. **Winter, S. D.**, & Depaoli, S. (2020). An Illustration of Bayesian Approximate Measurement Invariance with Longitudinal Data and a Small Sample Size. *International Journal of Behavioral Development, 44*(4), 371-382.

4. Depaoli, S., **Winter, S. D.**, Lai, K., & Guerra-Peña, K. (2019). Implementing continuous non-normal skewed distributions in latent growth mixture modeling: An assessment of specification errors and class enumeration. *Multivariate Behavioral Research, 54*(6), 795-821.

5. Tiemensma, J., Depaoli, S., **Winter, S. D.**, Felt, J. M., Rus, H., & Arroyo, A. C. (2018). The Performance of the IES-R for Latinos and non-Latinos: Assessing Measurement Invariance. *PLoS ONE, 13*(4), e0195229.

6. van de Schoot, R., Sijbrandij, M., Depaoli, S., **Winter, S. D.**, & van Loey, N. (2018). Bayesian PTSD-Trajectory Analysis with Informed Priors Based on a Systematic Literature Search and Expert Elicitation. *Multivariate Behavioral Research, 53*(2), 267-291.

7. **Winter, S. D.**, Depaoli, S., & Tiemensma, J. (2018). Assessing differences in how the CushingQoL is interpreted across countries: Comparing patients from the U.S. and the Netherlands. *Frontiers in Endocrinology*.

8. Hoorn, J. F., & **Winter, S. D.** (2017). Here comes the bad news: Doctor robot taking over. *International Journal of Social Robotics*.

9. van de Schoot, R., Sijbrandij, M., **Winter, S. D.**, Depaoli, S., & Vermunt, J. K. (2017). The GRoLTS-Checklist: Guidelines for reporting on latent trajectory studies. *Structural Equation Modeling: A Multidisciplinary Journal, 24*(3), 451-467.

10. van de Schoot, R., **Winter, S. D.**, Ryan, O., Zondervan-Zwijnenburg, M. & Depaoli, S. (2017). A systematic review of Bayesian papers in psychology: The last 25 years. *Psychological Methods, 22(2)*, 217-239.

11. Konijn, E. A., van der Schoot, R., **Winter, S. D.**, & Ferguson, C. J. (2015). Possible solution to publication bias through Bayesian statistics, including proper null hypothesis testing. *Communication Methods and Measures, 9*(4), 280-302.

PAPERS UNDER REVIEW OR IN PREPARATION

1. Arroyo, A. C., **Winter, S. D.**, Depaoli, S., Zawadski, M. (in prep). Psychosocial traits and academic performance: First- and continuing-generation college students.

2. Depaoli, S., **Winter, S. D.**, & Visser, M. (under review). The Importance of Prior Sensitivity Analysis in Bayesian Statistics: Demonstrations using an Interactive Shiny App.

3. Smid, S. C., & **Winter, S. D.** (under review). Dangers of the Defaults: A Tutorial on the Impact of Default Priors when using Bayesian SEM with Small Samples.

4. **Winter, S. D.**, & Depaoli, S. (in prep). Classification and Parameter Estimate Accuracy of Growth Mixture Models with and Without Class Predicting Covariates: Frequentist and Bayesian Approaches.

5. **Winter, S. D.**, & Depaoli, S. (in prep). Measurement Invariance of Continuous and Dichotomous Indicators in Second-Order Latent Growth Models: Assessing Frequentist and Bayesian Approaches.

PRESENTATIONS

* denotes presenter

Conference Presentations

1. Arroyo, A. C.*, **Winter, S. D.**, Depaoli S., and Zawadski, M. (2019, May). *Psychosocial Traits and Academic Performance: First- and Continuing-generation College Students.* Poster presented at the 31th APS Annual Convention, Washington, DC.

2. Smid, S. D.*, and **Winter, S. D.** (2019, May). The Impact of Default Priors in Bayesian SEM with Small Samples. In R. van de Schoot (chair) *Risks of Default Priors in Bayesian Structural Equation Models with Small Samples and Two Approaches on How to Avoid Those Risks.* Talk presented at the 31st APS Annual Convention, Washington, DC.

3. **Winter, S. D.***, and Smid, S. (2019, May). Demonstration of an Online Educational Application on Bayesian Default Priors. In R. van de Schoot (chair) *Risks of Default Priors in Bayesian Structural Equation Models with Small Samples and Two Approaches on How to Avoid Those Risks.* Talk presented at the 31st APS Annual Convention, Washington, DC.

4. **Winter, S. D.*** and Lek, K. M. (2018, July). *Bayesian Approximate Measurement Invariance: For Those Times When You Have Too Little or Too Much Data.* Talk presented at VIII European Congress of Methodology, Jena, Germany.

5. **Winter, S. D.*** and Depaoli S. (2018, May). *Measurement Invariance for Second-Order Latent Growth Models: Frequentist and Bayesian Approaches.* Poster presented at the 30th APS Annual Convention, San Francisco, CA.

6. **Winter, S. D.*** (2017, April). *Bayesian Approximate Measurement Invariance for Second-Order Latent Growth Models.* Talk presented at The University of California, Merced as Invited Department Talk, Merced, CA.

7. **Winter, S. D.*** and Depaoli S. (2017, March). *Bayesian Approximate Measurement Invariance As A Viable Alternative to Frequentist Methods.* Poster presented at The University of California, Merced Psychology Symposium, Merced, CA.

8. Depaoli, S.*, and **Winter, S. D.*** (2016, November). *A Systematic Review of Bayesian Papers in Psychology: The Last 25 Years.* Talk presented at The University of California, Merced Quantitative Psychology Colloquium, Merced, CA.

Workshops

1. **Winter, S. D.***, and Smid, S. C.* (2020, July). *Dangers of Default Priors.* Invited post-conference workshop presented at S4, Utrecht, the Netherlands. (Conference canceled)

2. **Winter S. D.***, and Coburn, K.* (2019, April). *Creating an Interactive Shiny App to Share Your Research Findings.* One-day workshop presented at The University of California, Merced. https://doi.org/10.17605/OS

3. **Winter S. D.*** (2015, June). *Statistics 101.* Workshop presented at DevOps Days Amsterdam, the Netherlands.

TEACHING EXPERIENCE

Guest Lectures

PSY 010: Analysis of Psychological Data - One-Sample *t*-test	*Spring 2019*
PSY 010: Analysis of Psychological Data - One-way ANOVA	*Spring 2019*

PSY 010: Analysis of Psychological Data - Independent Samples *z*-test   *Fall 2017*

Graduate Teaching Assistant
PSY 202A: Advanced Psychological Statistics I, graduate level Psychology course   *Fall 2019, 2020*
PSY 105: Advanced Research Methods in Psychology   *Spring 2017*
PSY 010: Analysis of Psychological Data   *Fall 2017, 2018, Spring 2019*
PSY 015: Research Methods in Psychology   *Fall 2016, Spring 2018, 2020*

Laboratory Instructor
PSY 010L: Analysis of Psychological Data   *Fall 2017, 2018, Spring 2019*

EXPERIENCE

Winter Statistics   January 2014 - June 2016
Founder   *Amsterdam, the Netherlands*

· I provided statistical consultancy and support with executing research and analyses. Clients included: Free University Amsterdam, Elastic (USA), Lund University (Sweden), Rutgers Foundation.

Utrecht University   January 2014 - June 2016
Researcher   *Utrecht, the Netherlands*

· I worked for Dr. Rens van de Schoot, at the department of Methodology and Statistics for the Behavioral and Social Sciences. My responsibilities included providing support at each step of the research cycle (literature review, data collection and management, analysis, writing final article or report); Organizing meetings, events, and conferences; Communication with guests and speakers; Putting forth new ideas for future research.

SERVICE

International & National
Organizer, Symposium: Estimating PTSD Trajectories, Utrecht, The Netherlands   *2015*

University & Department
Moderator, program Twitter account: @UCM_QuantPsych   *2018-present*
Mentor, GradEXCEL Peer Mentor Program, Graduate Division   *2019-2020*
Member, Graduate Student Survey Committee for Graduate Program Review   *2018*
Student Representative, Quantitative Psychology Open-Rank Job Search Committee   *2018*

Ad Hoc Reviewer
Journals   Psychological Methods, Structural Equation Modeling: A Multidisciplinary Journal,
                The European Journal of Psychotraumatology (special issue on Bayesian Statistics),
                Journal of Media Psychology

PROFESSIONAL DEVELOPMENT

A Meeting of Methodologies: Advancing Methods Development, Application, and Teaching   *2020*
in Psychology, the Behavioural, and Social Sciences
Women in Analytics Conference, Facebook HQ, one of 300 attendees out of 1500 applicants   *2018*

PROFESSIONAL AFFILIATIONS

- Society for the Improvement of Psychological Sciences (SIPS)
- Association for Psychological Science (APS)
- The International Society for Bayesian Analysis (ISBA)
- National Council on Measurement in Education (NCME)

SKILLS

Languages	Dutch, English
Software	R, M*plus*, BUGS/JAGS, Stan, HLM, SPSS, Git, Qualtrics
Coding	R, Python, HTML, css, LaTeX, Markdown
Select Statistics	Bayesian methods, Structural Equation Modeling, Item Response Theory, Multi-level Modeling, Measurement and Measurement Invariance, Finite Mixture Modeling, Longitudinal Data Analysis

REFERENCES

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