Sonja D. Winter

CONTACT
INFORMATION

University of California, Merced
5200 North Lake Road
Merced, CA 95343

E-mail: swinter@ucmerced.edu
Twitter: @winterstat
Website: winterstat.github.io

EDUCATION

UNIVERSITY OF CALIFORNIA, MERCED

Doctoral (Ph.D.) Student, Psychological Sciences, 2016-present
- Advisor: Associate Professor Sarah Depaoli
- Area of Study: Quantitative Psychology

UTRECHT UNIVERSITY, THE NETHERLANDS

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

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

AWARDS

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

University of California, Merced:
- Psychological Sciences Graduate Group Recruitment Fellowship, 2016
- Psychological Sciences Summer Support Fellowship, 2017, 2018, 2019, 2020
- Psychological Sciences Research Dissemination Award, 2018, 2019, 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

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

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

Winter, S. D., & Depaoli, S. (2019). An Illustration of Bayesian Approximate Measurement Invariance with Longitudinal Data and a Small Sample Size. *International Journal of Behavioral Development.*

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.

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.

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.

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.*

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

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.

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.

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.

Review
Experience   JOURNAL REVIEWS (Ad hoc or under Advisor supervision), *2016-present*

- Psychological Methods

- Structural Equation Modeling: A Multidisciplinary Journal

- The European Journal of Psychotraumatology (special issue on Bayesian Statistics)

Presentation
of Research   * denotes presenter

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 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/OSF.IO/69J37.

5. **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.

6. **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.

7. **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.

8. **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.

9. 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.

TEACHING
EXPERIENCE

UNIVERSITY OF CALIFORNIA, MERCED

Guest Lecturing Experience

- Undergraduate Level
  - PSY 010: Analysis of Psychological Data (Spring 2019) - "One-Sample t-test" & "One-way ANOVA"
  - PSY 010: Analysis of Psychological Data (Fall 2017) - "Independent Samples z-test"

Graduate Teaching Assistant, various courses   Fall 2016-present

- Graduate Teaching Assistant for PSY 010: Statistics in Psychology, lower-division undergraduate Psychology course
  - Terms: *Fall 2017, 2018, Spring 2019*
  - Created material for and taught two lab sections, held office hours, created lab assessments, graded assignments
  - This course provided a general introduction to basic descriptive and inferential statistics in the psychological sciences

- Graduate Teaching Assistant for PSY 105: Advanced Research Methods in Psychology, upper-division undergraduate Psychology course
  - Terms: *Spring 2017*
  - Held office hours and created grading rubrics and graded assignments
  - This course provided an advanced overview of methodological approaches in psychological research

- Graduate Teaching Assistant for PSY 015: Research Methods in Psychology, lower-division undergraduate Psychology course
  - Terms: *Fall 2016, Spring 2018, Spring 2020*
  - Held office hours, supported IOR during lectures (flipped classroom), and graded assignments
  - This course provided a general introduction to research methodology in psychology

- Graduate Teaching Assistant for PSY 202A: Advanced Psychological Statistics I, graduate Psychology course
  - Terms: *Fall 2019*
  - Held office hours, graded assignments
  - This course provided a general introduction to advanced descriptive and inferential statistics in the psychological sciences

PREVIOUS
POSITIONS HELD
(PRIOR TO START
PH.D. STUDIES)

WINTER STATISTICS

Founder   Jan 2014-June 2016

- Statistical consultancy and support with executing research and analyses
  - *Duties:* Collaborated with researchers and companies to answer their research questions with the data available; Gave introduction to Statistics workshops at conferences or within companies; Clients included: Free University Amsterdam, Elastic (USA), Lund University (Sweden), Rutgers Foundation.

UTRECHT UNIVERSITY

Researcher   Jan 2014-June 2016

- Department of Methodology and Statistics for the Behavioral and Social Sciences
  - *Lab Coordinator:* Rens van de Schoot, Ph.D.
  - *Duties:* Gave support at each step of the research cycle (literature review, data collection and management, analysis, writing final article or report); Organized meetings, events, and conferences. Communicated with guests and speakers; Put forth new ideas for future research.

PROFESSIONAL
AFFILIATIONS

Professional Organizations:
- Association for Psychological Science (APS)
- The International Society for Bayesian Analysis (ISBA)

SERVICE
(UC MERCED)

Department service:
- Mentor, GradEXCEL Peer Mentor Program, Graduate Division (2019-2020)
- Member, Graduate Student Survey Committee for UC Merced Psychological Sciences Graduate Program Review (2018)
- Student Representative, Quantitative Psychology Open-Rank Job Search Committee (2018)

SERVICE

To the field:

- Organizer, Symposium: Estimating PTSD Trajectories (2015)
  - Organized a symposium on the application of Bayesian Latent Growth Mixture Modeling to uncover PTSD trajectories (50+ attendees), followed by an expert meeting of experts in the field of PTSD to discuss a large scale Bayesian re-analysis of longitudinal data on PTSD trajectories (20+ experts).

PROFESSIONAL DEVELOPMENT

- Women in Analytics Conference, Facebook HQ, one of 300 attendees out of 1500 applicants (2018)

STATISTICAL PROGRAMS

The various programs I am skilled with are:

- Editing/Professional Writing
  - Microsoft Word
  - LATEX
  - Markdown
  - HTML, css, PHP
  - knitr (R package)
- Statistical Modeling
  - M*plus*
  - HLM
  - Numerous R packages
- Statistical: General Purpose
  - R/RStudio for website and package development, database management, data manipulation, etc.
  - SPSS
  - Python
  - SAS (ltd. knowledge)
  - Matlab (ltd. knowledge)
- Statistical: Bayesian Methods
  - M*plus*
  - OpenBUGS
  - WinBUGS
  - JAGS
  - Stan
  - Base R
  - Numerous R packages

REFERENCES

SARAH DEPAOLI, Ph.D. *academic advisor*
Associate Professor, Quantitative Psychology
School of Social Sciences, Humanities and Arts
University of California, Merced
5200 North Lake Road
Merced, CA 95343
Phone: (209) 228-4549
Email: sdepaoli@ucmerced.edu