

# NICHOLAS J. ROCKWOOD, Ph.D.

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## EDUCATION

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- Ph.D., Quantitative Psychology** **May 2019**  
The Ohio State University, Columbus, Ohio USA  
Dissertation: *Estimating multilevel structural equation models with random slopes for latent covariates*  
Advisor: Andrew F. Hayes
- M.A.S., Applied Statistics** **May 2018**  
The Ohio State University, Columbus, Ohio USA
- M.A., Quantitative Psychology** **May 2017**  
The Ohio State University, Columbus, Ohio USA
- B.A., Psychology** **December 2014**  
California State University, San Bernardino, San Bernardino, California USA  
University Honors, Summa Cum Laude  
Department Honors

## ACADEMIC EXPERIENCE

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- Assistant Professor** **August, 2019 - Present**  
Division of Interdisciplinary Studies  
School of Behavioral Health  
Loma Linda University, Loma Linda, CA USA
- Statistical Consultant** **August, 2017 - May 2019**  
Psychology Department, The Ohio State University, Columbus, Ohio USA  
Provide consulting services to faculty and students in the Psychology Department and related fields.
- Graduate Teaching Assistant** **August, 2016 - May, 2017**  
Psychology Department, The Ohio State University, Columbus, Ohio USA  
Taught lab for first year graduate psychological statistics sequence, with focus on computing in R, SPSS, and SAS.
  - Psychological Statistics II (Graduate), Spring, 2017.
  - Psychological Statistics I (Graduate), Autumn, 2016.
- Graduate Fellow** **August, 2015 - August, 2016**  
Psychology Department, The Ohio State University, Columbus, Ohio USA  
Mechanisms and Contingencies Lab.  
Supervisor: Dr. Andrew F. Hayes.

## PUBLICATIONS

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### Quantitative Methods

**Rockwood, N. J.** (2021). Efficient likelihood estimation of generalized structural equation models with a mix of normal and nonnormal responses. *Psychometrika*, *86*, 642-667.

**Rockwood, N. J.** (2020). Maximum likelihood estimation of multilevel structural equation models with random slopes for latent covariates. *Psychometrika*, *85*, 275-300.

**Rockwood, N. J.** & Hayes, A. F. (in press). Multilevel mediation analysis. In A. A. O'Connell, D. B. McCoach, & B. Bell (Eds.), *Multilevel Modeling Methods with Introductory and Advanced Applications*. Charlotte, NC: Information Age Publishing.

**Rockwood, N. J.** & Hayes, A. F. (2020). Mediation, moderation, and conditional process analysis: Regression-based approaches for clinical research. In A.G.C. Wright & M.N. Hallquist (Eds.), *The Cambridge Handbook of Research Methods in Clinical Psychology* (pp. 396-414). Cambridge: Cambridge University Press.

Hayes, A. F. & **Rockwood, N. J.** (2020). Conditional process analysis: Concepts, computation, and advances in the modeling of the contingencies of mechanisms. *American Behavioral Scientist*, *64*(1), 19-54.

**Rockwood, N. J.** & Jeon, M. (2019). Estimating complex measurement and growth models using the R package PLmixed. *Multivariate Behavioral Research*, *54*(2), 288-306.

DiTrapani, J., **Rockwood, N. J.**, & Jeon, M. (2018). Explanatory IRT analysis using the SPIRIT macro in SPSS. *The Quantitative Methods for Psychology*, *14*(2), 81-98.

Jeon, M. & **Rockwood, N. J.** (2018). PLmixed: An R package for generalized linear mixed models with factor structures. *Applied Psychological Measurement [Computer program exchange]*, *42*(5), 401-402.

DiTrapani, J., **Rockwood, N. J.**, & Jeon, M. (2018). IRT in SPSS using the SPIRIT macro. *Applied Psychological Measurement [Computer program exchange]*, *42*(2), 173-174.

Hayes, A. F. & **Rockwood, N. J.** (2017). Regression-based statistical mediation and moderation analysis in clinical research: Observations, recommendations, and implementation. *Behaviour Research and Therapy*, *98*, 39-57.

Hayes, A. F., Montoya, A. K., & **Rockwood, N. J.** (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal (AMJ)*, *25*(1), 76-81.

### Substantive/Applied

Quan, M., Cho, N., Bushnell, T., ..., **Rockwood, N. J.**, & Nguyen, H. B. (2022). Effectiveness of Angiotensin II for catecholamine refractory septic or distributive shock on mortality: A propensity score weighted analysis of real-world experience. *Critical Care Explorations*, *4*(1).

Garland, S. N., Savard, J., ..., **Rockwood, N. J.**, ..., Gonzalez, B. D. (2021) A 2-year prospective analysis of insomnia as a mediator of the relationship between androgen deprivation therapy and perceived cognitive function in men with prostate cancer. *Cancer*, *127*(24), 4656-4664.

Lukowski, S. L., DiTrapani, J., **Rockwood, N. J.**, Jeon, M., Thompson, L. A., & Petrill, S. A. (2019). Etiological distinction across dimensions of math anxiety. *Behavior Genetics*, *49*(3), 310–316. *\*\*Nominated for 2020 Fulker Award, which is for ‘a particularly meritorious paper’ published in the journal during the preceding year.\*\**

Kamptner, N. L., Teyber, F. H., **Rockwood, N. J.**, & Drzewiecki, D. (2017). Evaluating the efficacy of an attachment-informed psychotherapeutic parenting program for incarcerated parents. *Journal of Prison Education and Reentry*, *4*(2), 62–81.

## SOFTWARE

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Jeon, M., & **Rockwood, N. J.** (2017). PLmixed: Estimate (Generalized) Linear Mixed Models with Factor Structures. R package version 0.1.0. <https://CRAN.R-project.org/package=PLmixed>.

**Rockwood, N. J.** (2017). MLmed: An SPSS macro for fitting multilevel mediation and moderated mediation models. <https://njrockwood.com/mlmed>.

DiTrapani, J., **Rockwood, N. J.**, & Jeon, M. (2017). SPIRIT: An SPSS macro for Item Response Theory. <https://njrockwood.com/spirit>.

## WORKSHOPS

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**\*Co-Instructor** (2020, April). Using the R package PLmixed to Estimate Complex Measurement and Growth Models. Co-Instructor: Dr. Minjeong Jeon. Annual Convention of the National Council on Measurement in Education (NCME), San Francisco, CA. Half day workshop. *\*Workshop canceled due to Covid-19.*

**Instructor** (2019, April). Introduction to R. Measurement Resources Company. Two hour mini-workshop.

**Instructor** (2018, November). Introduction to Mediation, Moderation, and Conditional Process Analysis. The University of Pittsburgh. One and a half hour mini-workshop.

**Co-Instructor** (2018, May). Mediation in Repeated Measures and Multilevel Designs. Co-Instructor: Dr. Amanda Montoya. Annual Convention of the Association for Psychological Science, San Francisco, CA. Half day workshop.

**Instructor** (2018, April). Introduction to Mediation and Moderation Analysis. The University of Nevada, Las Vegas. Two day workshop.

**Course Assistant** (2017, June). Statistical Mediation and Moderation. Instructor: Andrew F. Hayes. Statistical Horizons, Chicago, IL. Five day workshop.

## CONFERENCE PRESENTATIONS

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### Quantitative Methods

**Rockwood, N. J.** (2018, July). Estimating cross-classified item response models using the MH-RM algorithm. Talk presented at the International Meeting of the Psychometric Society (IMPS), New York, NY.

DiTrapani, J., **Rockwood, N. J.**, & Jeon, M. (2018, July). Modeling extreme response styles in behavioral genetics using IRTrees. Talk presented at the International Meeting of the Psychometric Society (IMPS), New York, NY.

**Rockwood, N. J.** & Hayes, A. F. (2017, May). MLmed: An SPSS macro for multilevel mediation and conditional process analysis. Poster presented at the annual meeting of the Association of Psychological Science (APS), Boston, MA.

DiTrapani, J., **Rockwood, N. J.**, & Jeon, M. (2017, April). IRT in SPSS using the SPIRIT macro. Talk presented at the annual meeting of the National Council on Measurement in Education (NCME), San Antonio, TX.

**Rockwood, N. J.** & Riggs, M. L. (2014, May). Rasch rating scale model and classical test theory: An applied comparison. Poster presented at the annual Meeting of the Minds Symposium, San Bernardino, CA.

### **Substantive/Applied**

Garland, S. N., ..., **Rockwood, N. J.**, et al. (2019, September). A prospective analysis of insomnia and subjective cognitive impairment in men with prostate cancer on androgen deprivation therapy. Talk presented at the International Psycho-Oncology Society (IPOS) World Congress of Psycho-Oncology, Banff, Alberta, Canada.

Pettey, A. A., Agars, M. D., **Rockwood, N. J.**, Ceballos, B. & Kirkham, J. (2017, April). Boundary management among parents of children with ASD. Poster presented at the annual meeting of the Society for Industrial/Organizational Psychologists (SIOP), Orlando, FL.

Cazares, E. J., Agars, M. D., & **Rockwood, N. J.** (2016, May). Work pressure, family, and health: The role of social support. Poster presented at the annual meeting of the Association of Psychological Science (APS), Chicago, IL.

**Rockwood, N. J.**, Osretkar, H., & Campbell, K. (2015, April). Perceptions of racism/ discrimination and mental health in a South African sample. Poster presented at the annual meeting of the Western Psychological Association (WPS), Las Vegas, NV.

McConnaughy, J. C., Agars, M. D., **Rockwood, N. J.**, & Pettey, A. A. (2015, April). Development of an employee green behavior descriptive norms scale. Poster presented at the annual meeting of the Society for Industrial/Organizational Psychologists (SIOP), Philadelphia, PA.

Agars, M. D., Torte, L. M., **Rockwood, N. J.**, & Quinonez, L. (2014, June). The limited impact of workfamily policies and culture on the career perceptions of women. Poster presented at the annual Work and Family Researchers Conference, New York City, NY.

Agars, M. D., French, K. A., Torte, L. M., Amaral, B. A., **Rockwood, N. J.**, Soria, S., & Vansa, L. (2014, June). Work-family and health among low-income African American employees. In M. J. Hills (Discussant), The impact of work-family conflict on employee health outcomes. Symposium presented at the annual Work and Family Researchers Conference, New York City, NY.

Torte, L. M., French, K. A., Agars, M. D., Cazares, E., Ezeagwula, C. E., **Rockwood, N. J.**, & Vansa, L. (2014, May). Threat and fairness around diversity management: Testing full integration theory. Poster presented at the annual meeting of the Society for Industrial/Organizational Psychologists (SIOP), Honolulu, HI.

## COLLOQUIA

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**Rockwood, N. J.** (2020, October). Estimating multilevel structural equation models with random slopes for latent covariates. Quantitative Psychology Seminar, University of California, Los Angeles, Los Angeles, CA (online).

**Rockwood, N. J.** (2019, December). Modeling within- and between-person differences using multilevel structural equation models. Department of Psychiatry/School of behavioral Health Grand Rounds Presentation w/ BHI Shares, Loma Linda University, Loma Linda, CA.

**Rockwood, N. J.** (2019, January). Modeling within- and between-person differences using multilevel structural equation models. Department of Preventive Medicine Speaker Series, Keck School of Medicine, University of Southern California, Los Angeles, CA.

**Rockwood, N. J.** (2018, March). Estimating a multi-rater item response model with crossed random effects using the MH-RM algorithm. Quantitative Psychology Seminar, The Ohio State University, Columbus, OH.

**Rockwood, N. J.** (2017, Feb). Estimating (generalized) linear mixed models with factor structures using the R package PLmixed. Quantitative Psychology Seminar, The Ohio State University, Columbus, OH.

**Rockwood, N. J.** (2016, Feb). Inferences about indirect effects when errors are heteroskedastic. Quantitative Psychology Seminar, The Ohio State University, Columbus, OH.

## GRANTS

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### Awarded

**Statistician (2021–2024).** *A Multi-Component Intervention to Strengthen Families and Build Youth Resilience.* Ariane Marie-Mitchell, PI, Loma Linda University.

**Program Analyst (2020–2025).** *Primary Care Psychology Pipeline Program (4P).* Bridgette J Peteet, PI, Loma Linda University.

**Statistical and Program Evaluator (2019–2022).** *Graduate Psychology Education Programs.* Kelly R Morton, PI, Loma Linda University.

## JOURNAL REVIEWING

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Advances in Methods and Practices in Psychological Science, Annals of Behavioral Medicine, Behavior Research Methods, Child Development, Psychological Methods, Psychometrika