

**Ross Jacobucci**  
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**Curriculum Vitae**  
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## Professional History & Education

- **Assistant Professor of Psychology** 2017 - Current  
*University of Notre Dame* Notre Dame, Indiana
- **Ph.D. Psychology** August 2017  
*University of Southern California (USC)* Los Angeles, California
  - Area: Quantitative Methods
  - Dissertation: Evaluating the Stability of Decision Tree Algorithms.
- **M.A. Psychology** December 2015  
*University of Southern California (USC)* Los Angeles, California
  - Area: Quantitative Methods
  - Thesis: Regularized Structural Equation Modeling.
- **M.A. Psychology** 2011-2013  
*University of Northern Iowa (UNI)* Cedar Falls, Iowa
  - Individualized Study: Quantitative Emphasis
- **B.A. Psychology** June 2010  
*Luther College* Decorah, Iowa
  - Thesis: The Effect of Mental Imagery on Performance in Golf.

## Books

Jacobucci, R. & Grimm, K. J. (under contract). *Exploratory data mining for social and behavioral scientists*. New York, NY: Guilford.

## Publications

### • Publications

- Stegmann, G., Jacobucci, R., Harring, J., & Grimm, K. J. (in press). Nonlinear mixed-effects modeling programs in R. *Structural Equation Modeling*.
- Ammerman, B. A., Jacobucci, R., & McCloskey, M. S. (in press). Using exploratory data mining to identify important predictors of non-suicidal self-injury frequency. *Psychology of Violence*.
- Ammerman, B. A., Jacobucci, R., Kleiman, E. M., Uyeji, L., & McCloskey, M. S. (in press). The relationship between nonsuicidal self-injury age of onset and severity of self-harm. *Suicide and Life Threatening Behavior*.
- Serang, S., Jacobucci, R., Brimhall, K. C., & Grimm, K. J. (2017). Exploratory mediation analysis via regularization. *Structural Equation Modeling*, 24. 733-744.
- Jacobucci, R., Grimm, K. J., & McArdle, J. J. (2017). A comparison of methods for uncovering sample heterogeneity: Structural equation model trees and finite mixture models. *Structural Equation Modeling*, 24. 270-282.
- Grimm, K. J., Jacobucci, R., McArdle, J. J. (January, 2017). Big data methods and psychological science. *Psychological Science Agenda*.

- Jacobucci, R.**, Grimm, K. J., & McArdle, J. J. (2016). Regularized structural equation modeling, *Structural Equation Modeling*, 23, 555-566. doi:10.1080/10705511.2016.1154793. PMID: 4937830
- Ammerman, B. A., **Jacobucci, R.**, Kleiman, E. M., Muehlenkamp, J. J., & McCloskey, M. S. (2016). Development and validation of empirically derived frequency criteria for NSSI disorder using exploratory data mining, *Psychological Assessment*.
- Jacobucci, R.**, & McArdle, J. J. (2015). Abstract: Regularized structural equation modeling, *Multivariate Behavioral Research* 50, 736-736. doi:10.1080/00273171.2015.1121125.
- Hayes, T., Usami, S., **Jacobucci, R.**, & McArdle, J. J. (2015). Using classification and regression trees (CART) and random forests to analyze attrition in longitudinal data: Results from two simulation studies, *Psychology and Aging*, 30, 911-929. doi:10.1037/pag0000046. PMID: 4743660
- Skaar, N. R., Christ, T. J., & **Jacobucci, R.** (2014). Measuring adolescent prosocial and health risk behavior in schools: Initial development of a screening measure. *School Mental Health*, 6, 137-149. doi:10.1007/s12310-014-9123-y

## • Chapters

- Jacobucci, R.** & Grimm, K. J. (accepted). Regularized estimation of multivariate latent change score models. *Advances in Longitudinal Models for Multivariate Psychology: A Festschrift for Jack McArdle*.
- Grimm, K. J. & **Jacobucci, R.** (accepted). Individually varying time metrics in latent change score models. *Advances in Longitudinal Models for Multivariate Psychology: A Festschrift for Jack McArdle*.

## • Technical Reports

- Jacobucci, R.** (2017). regsem: Regularized Structural Equation Modeling. *arXiv preprint arXiv:1703.08489*.

## • Manuscripts Under Review

- Jacobucci, R.**, Grimm, K. J. (in revision). Comparison of frequentist and Bayesian regularization in structural equation modeling.
- Burke, T. A., **Jacobucci, R.**, Ammerman, B. A., Piccirillo, M., McCloskey M., & Alloy, L. B. (in revision). Identifying the relative importance of non-suicidal self-injury features in predicting suicidal ideation and behavior using exploratory data mining.
- Ammerman, B. A., Serang, S., **Jacobucci, R.**, Burke, T., A., Alloy, L. B., & McCloskey, M. S. (under review). Exploratory Analysis of Mediators in the Relationship between Childhood Maltreatment and Suicidal Behavior.
- Serang, S. & **Jacobucci, R.** (under review). Exploratory mediation analysis of dichotomous outcomes via regularization.
- Stegmann, G., **Jacobucci, R.**, Serang, S., & Grimm, K. J. (under review). Recursive partitioning with nonlinear change trajectories.
- Jacobucci, R.** (under review). regsem: Regularized structural equation modeling.

## Presentations

## • Oral Presentations

- Jacobucci, R.** (2017, June). *Exploratory data mining for a single outcome in clinical research*. Paper accepted for presentation at the 51st Annual Convention for the Association for Behavioral and Cognitive Therapies, San Diego, California.

- Ammerman, B. A., **Jacobucci, R.**, Turner, B. J., Serang, S., & McCloskey, M. S. (2017, June). *Quantifying the importance of lifetime frequency versus number of methods used in the consideration of NSSI severity*. Paper accepted for presentation at the 51st Annual Convention for the Association for Behavioral and Cognitive Therapies, San Diego, California.
- Jacobucci, R.**, Serang, S., & Ammerman, B.A. (2017, June). *Multivariate approaches to exploratory data mining with the application of exploratory mediation for self-injury*. Paper accepted for at the 51st Annual Convention for the Association for Behavioral and Cognitive Therapies, San Diego, California.
- Burke, T. A., **Jacobucci, R.**, Ammerman, B.A., Hamilton, J. L., & Alloy, L. B. (2017, June). *Using exploratory data mining to compare importance of risk factors in predicting recent versus former history of non-suicidal self-injury*. Paper accepted for at the 51st Annual Convention for the Association for Behavioral and Cognitive Therapies, San Diego, California.
- Kleiman, E.M., **Jacobucci, R.**, Ammerman, B.A., Turner, B.J., Beale, E.E., Fedeor, S., Huffman, J.C., & Nock, M. K. (2017, June). *What affect states are most strongly associated with suicidal ideation? A real-time monitoring, exploratory data mining study*. Paper accepted for at the 51st Annual Convention for the Association for Behavioral and Cognitive Therapies, San Diego, California.
- Zelinski, E. M., **Jacobucci, R.** (2017, July). *Heterogeneity in cognitive change trajectories of older adults observed from structural equation model trees*. Alzheimers Association International Conference in London, UK
- Burke, T. A., **Jacobucci, R.**, Ammerman, B. A., Piccirillo, M., McCloskey M., & Alloy, L. B. (2017, April). *Identifying the relative importance of non-suicidal self-injury features in predicting suicidal ideation and behavior using exploratory data mining*. Paper presented at the 50th Annual Conference of American Association of Suicidology in Pheonix, Arizona.
- Jacobucci, R.**, Zelinski, E. M. (2016, November). *The bi-directional relationship between health and cognition in older age*. Paper presented at the Gerontological Society of America Annual Meeting, New Orleans, Louisiana.
- Peters, K., **Jacobucci, R.**, Prescott, C., Walters, E., McArdle, J. J. (2016, November). *Computerized adaptive testing of cognitive abilities in the Project Talent Aging Study*. Paper presented at the Gerontological Society of America Annual Meeting, New Orleans, Louisiana.
- Jacobucci, R.**, Grimm, K. J. (2016, October). *Psuedo-continuous testing of the latent difference score model*. Paper invited for presentation at the conference to honor the work of Jack McArdle, Richmond, Virginia.
- Grimm, K. J., **Jacobucci, R.** (2016, October). *Individually-varying time metrics in latent change score models*. Paper invited for presentation at the conference to honor the work of Jack McArdle, Richmond, Virginia.
- Jacobucci, R.**, Grimm, K. J., McArdle, J. J. (2016, July). *Comparison of frequentist and Bayesian regularization in structural equation modeling*. Paper presented at the International Meeting for the Psychometric Society, Asheville, North Carolina.
- Ammerman, B. A., **Jacobucci, R.**, Kleiman, E. M., Muehlenkamp, J., J. & McCloskey, M. S. (2015, November). *The exploration and validation of an empirically derived frequency criteria for NSSI Disorder*. Paper presented at the 49th Annual Convention for the Association for Behavioral and Cognitive Therapies, Chicago, Illinois
- Jacobucci, R.**, Prindle, J. J., McArdle, J. J. (2015, September). *An Application of Exploratory Data Mining in Project TALENT*. Paper presented at the International Meeting for Intelligence Research Annual Conference, Albuquerque, New Mexico.

## • Poster Presentations

- Khoddam, R., Cho, J., Jacobucci, R., Prescott, C. A., & Leventhal, A. M. (2017, March). *Bivariate Latent Difference Score Modeling to Examine the Relationship between Conduct Problems and Cigarette Smoking among Adolescents*. Poster presented at the Society for Research on Nicotine and Tobacco annual meeting, Florence, Italy.

- Ammerman, B. A., **Jacobucci, R.**, & McCloskey, M. S. (2016, June). *The Prediction of Non-Suicidal Self-Injury Frequency Using Random Forests*. Poster presented at the 11th Annual Meeting of the International Society for the Study of Self-Injury, Eau Claire, Wisconsin.
- Jacobucci, R.**, Hayes, T., Zelinski, E. M. (2015, November). *Evaluating Methods for Generalizing from a Convenience Sample*. Poster presented at the 68th Annual Scientific Meeting of the Gerontological Society of America, Orlando, Florida.
- Zelinski, E., **Jacobucci, R.**, Kennison, R., & Zak, D. (2014, November). *Can a convenience sample produce generalizable results?* Poster session presented at the Gerontological Society of America Annual Scientific Meeting, Washington, DC.
- Jacobucci, R.**, Williams, J. E., & Thiruselvam, I. (2013, January). *A confirmatory factor analysis of the short form for the IPIP-NEO five-factor model personality scale*. Poster session presented at the Society for Personality and Social Psychology, New Orleans, Louisiana.
- Jacobucci, R.**, Brownfield, C., & Williams, J. E. (2012, December). *Intelligence as a factor in criminal offender risk assessment*. Poster session presented at the International Society for Intelligence Research, San Antonio, Texas.
- Jacobucci, R.**, Williams, J. E., & Thiruselvam, I. (2012, March). *Convergent validity of two short form measures of the five factor model of personality*. Poster session presented at the Iowa Psychological Association Spring Conference, Ames, Iowa.

## Software

- Jacobucci, R.** (2017). regsem: Performs Regularization on Structural Equation Models (version 0.8.1) [Software]. Available from <https://cran.r-project.org/web/packages/index.html>
- Jacobucci, R.**, Stewart, S., Abdoell, M., Serang, S., & Stegmann, G. (2017). longRPart2: Recursive Partitioning of Longitudinal Data (version 0.0.1) [Software]. Available from <https://cran.r-project.org/web/packages/longRPart2/index.html>
- Jacobucci, R.** (2017). dtree: Decision Trees (version 0.2.3) [Software]. Available from <https://cran.r-project.org/web/packages/dtree/index.html>
- Jacobucci, R.** (2016). autosem: Performs Specification Search in Structural Equation Models (version 0.1.0) [Software]. Available from <https://cran.r-project.org/web/packages/autoSEM/index.html>

## Awards/Honors

### Ruth L. Kirschstein National Research Service Award

Predocotrinal trainee on the Multidisciplinary Research Training in Gerontology Grant at USC.  
Three years of full funding.

### 2016 USC Psychology Department Travel Grant Award

Travel award to present at the 2016 Psychometric Society Meeting.

Amount: \$500

### 2015 SMEP Conference Travel Award

Travel award to present at the 13th Annual Society of Multivariate Experimental Psychology Graduate Student Conference.

Amount: \$1500

### 2015 ISIR Conference Travel Award

Travel award to present at the annual meeting of the International Society for Intelligence Research.

Amount: \$1500

**2014 SMEP Workshop Travel Award**

Travel award to attend the 2014 APA Advanced Training Institutes on Structural Equation Modeling in Longitudinal Research and Exploratory Data Mining in Behavioral Research.  
Amount: \$1000

**2014 APA Science Directorate Travel Award**

Travel award to attend the 2014 APA Advanced Training Institutes on Structural Equation Modeling in Longitudinal Research and Exploratory Data Mining in Behavioral Research.  
Amount: \$500

**Intercollegiate Academics Fund Travel Award, UNI, Fall 2012**

Award allocated to promote and support the presentation of research at an academic conference.  
Amount: \$650

**Graduate Student Opportunity Fund For Travel, UNI, Fall 2012**

Award to support travel for graduate students presenting at an academic conference.  
Amount: \$250

**College of Social and Behavioral Sciences Graduate Research Award, UNI, Fall 2012**

Award allocated for the purchase of expenses related to thesis research.  
Amount: \$500

**Graduate College Tuition Scholarship, UNI, Fall 2012**

Scholarship based on academic performance.

**Academic All-American, Golf, 2009, 2010**

An award given out by the Golf Coaches Association of America based on academic and athletic performance.

## Teaching Experience

- **Classes**

- Undergraduate Psych Statistics**

- PSY30100 - 03: Experimental Psychology I - Statistics  
Fall 2017, University of Notre Dame

- **Workshops**

- Exploratory Data Mining via SEARCH Strategies**

- 8/15/2016-8/19/2016 & 8/14/2017-8/18/2017

- University of Michigan, Ann Arbor, MI.

- Role: Lecturer and lab instructor.

- Lecture Topic: Structural Equation Model Trees

- Lab Topics: R, Regression, Clustering, Factor Analysis, Decision Trees & Extensions, SEM Trees.

- Big Data: Exploratory Data Mining in Behavioral Research**

- APA Advanced Training Institutes. 6/6/2016-6/10/2016 & 6/5/2017-6/9/2017

- Arizona State University, Tempe, AZ

- Role: Lecturer and lab instructor.

- Lecture Topic: Structural Equation Model Trees

- Lab Topics: Decision Trees, Random Forests, Boosting, & SEM Trees.

- Structural Equation Modeling in Longitudinal Research**

- APA Advanced Training Institutes. 6/6/2016-6/10/2016 & 5/30/2017-6/3/2017

- Arizona State University, Tempe, AZ

- Role: Lab instructor.

- Lab Topics: Longitudinal Factor Analysis & Alternate Change Score Models.

- Exploratory Data Mining via SEARCH Strategies**

- 6/8/2015-6/12/2015, University of Michigan, Ann Arbor, MI

- Role: Lab instructor.

- Lab Topics: R, Regression, Clustering, Factor Analysis, Decision Trees & Extensions, SEM Trees.

## **Big Data: Exploratory Data Mining in Behavioral Research**

APA Advanced Training Institutes. 6/1/2015-6/5/2015, Arizona State University, Tempe, AZ

Role: Lab instructor.

Lab Topics: Decision Trees & Extensions, SEM Trees, Heuristic Search Algorithms.

### **• Lecturing**

*Exploratory Factor Analysis*, Multivariate Analysis of Behavioral Data, Fall 2016, USC

*The application of SEM Trees in Project TALENT*, Big Data: Exploratory Data Mining in Behavioral Research Workshop, Summer 2014, USC.

*Graphing in R*, Graduate Consultation and Computer Center Lecture Series, Spring 2014, USC.

*Item Factor Analysis*, Graduate Consultation and Computer Center Lecture Series, Spring 2014, USC.

*Factor Indeterminacy*, Workshop in Quantitative Methods – Mathematical Psychology, Spring 2014, USC

*Estimation in Factor Analysis*, Workshop in Quantitative Methods – Mathematical Psychology, Spring 2014, USC

*Statistical Learning-Part 3: Advanced Algorithms*, Graduate Consultation and Computer Center Lecture Series, Fall 2014, USC.

*Statistical Learning-Part 1: Preprocessing*, Graduate Consultation and Computer Center Lecture Series, Fall 2014, USC.

*Exploratory Factor Analysis*, Introduction to Psych Statistics, Spring 2012, UNI

## **Professional Activities**

### **• Consulting**

Team member of environmental-brain aging psychometrics working group for the Environmental Determinants of Cognitive Aging R01, Summer 2013 - Spring 2014, USC.

### **• Reviewing**

Journal of Consulting and Clinical Psychology

Structural Equation Modeling

Multivariate Behavioral Research

Behavior Research Methods

Psychometrika