

Ross Jacobucci

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Curriculum Vitae

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Education

- **University of Southern California (USC)** Los Angeles, California
Ph.D. Psychology Expected Summer 2017
 - Area: Quantitative Methods
 - Dissertation: On the Application of Decision Trees in both Psychological and Gerontological Research.
- **University of Southern California (USC)** Los Angeles, California
M.A. Psychology December 2015
 - Area: Quantitative Methods
 - Thesis: Regularized Structural Equation Modeling
- **University of Northern Iowa (UNI)** Cedar Falls, Iowa
M.A. Psychology 2011-2013
 - Individualized Study: Quantitative Emphasis
- **Luther College** Decorah, Iowa
B.A. Psychology June 2010
 - Thesis: The Effect of Mental Imagery on Performance in Golf.

Publications

• Publications

- Serang, S., **Jacobucci, R.**, Brimhall, K. C., & Grimm, K. J. (in press). Exploratory mediation analysis via regularization. *Structural Equation Modeling*.
- 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*.
- 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

- **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. *Structural Equation Modeling*.

Ammerman, B. A., **Jacobucci, R.**, & McCloskey, M. S. (in revision). Using exploratory data mining to identify important predictors of non-suicidal self-injury frequency. *Psychology of Violence*.

- **Manuscripts in Preparation**

Jacobucci, R., Grimm, K. J., & Zelinski, E. M. (in preparation). The bi-directional relationship between health and cognition in older ages.

Jacobucci, R., Grimm, K. J. (in preparation). Regularized estimation of multivariate latent change score models. Invited book chapter for *Advances in Longitudinal Models for Multivariate Psychology: A Festschrift for Jack McArdle*.

Burke, T. A., **Jacobucci, R.**, Ammerman, B. A., Piccirillo, M., McCloskey M., & Alloy, L. B. (in preparation). Identifying the relative importance of non-suicidal self-injury features in predicting suicidal ideation and behavior using exploratory data mining.

Presentations

- **Oral Presentations**

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*. Submitted to 50th Annual Conference of American Association of Suicidology in Phoenix, 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). *Pseudo-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.

Awards/Honors

Ruth L. Kirschstein National Research Service Award

Predoctoral 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

• Workshops

Exploratory Data Mining via SEARCH Strategies

8/15/2016-8/19/2016, 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, Arizona State University, Tempe, AZ

Role: Lecturer and lab instructor.

Lecture Topic: Multivariate Decision Tree Methods

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, 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

- **Teaching Assistant**

Fundamentals of Psychological Measurement, Fall 2014 (Graduate-Level: Dr. John J. McArdle, USC)

History & Systems, Spring 2013 (Undergraduate-Level: Dr. Andrew R. Gilpin, UNI)

Psychology of Music, Spring 2013 (Undergraduate-Level: Dr. Carolyn Hildebrandt, UNI)

Advanced Graduate Statistics, Fall 2012 (Graduate-Level: Dr. Andrew R. Gilpin, UNI)

Cognitive & Intellectual Assessment, Fall 2012 (Graduate-Level: Dr. John E. Williams, UNI)

Honor's Introduction to Psychology, Fall 2012 (Undergraduate-Level: Dr. John E. Williams, UNI)

Introduction to Psych Statistics, Spring 2012 (Undergraduate-Level: Dr. Andrew R. Gilpin, UNI)

Memory & Language, Fall 2011 (Undergraduate-Level: Dr. Jack Yates, UNI)

Software

Jacobucci, R. (2017). regsem: Performs Regularization on Structural Equation Models (version 0.7.0) [Software]. Available from <https://cran.r-project.org/web/packages/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>

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.

- **Advanced Training**

Integrative Analysis of Longitudinal Studies of Aging and Dementia: Enhancing Replication and Reproducibility, GSA 2015 Pre-Conference Workshop, Orlando, FL

Structural Equation Modeling in Longitudinal Research, APA Advanced Training Institutes. Summer 2014, Arizona State University, Tempe, AZ

Big Data: Exploratory Data Mining in Behavioral Research, APA Advanced Training Institutes. Summer 2014, Arizona State University, Tempe, AZ

- **Reviewing**

Journal of Consulting and Clinical Psychology
Structural Equation Modeling
Multivariate Behavioral Research
Behavior Research Methods

- **Affiliations**

Gerontological Society of America

References

Elizabeth Zelinski, Ph.D., University of Southern California
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Kevin J. Grimm, Ph.D., Arizona State University
Professor of Psychology
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John J. McArdle, Ph.D., University of Southern California
Professor of Psychology and Gerontology
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