

Ross Jacobucci

3620 South McClintock Ave., SGM 501
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Curriculum Vitae

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Education

- **University of Southern California (USC)** Los Angeles, California
Ph.D. Psychology
– Area: Quantitative Methods
Expected 2018
- **University of Southern California (USC)** Los Angeles, California
M.A. Psychology
– Thesis: Regularized Structural Equation Modeling
– Area: Quantitative Methods
December 2015
- **University of Northern Iowa (UNI)** Cedar Falls, Iowa
M.A. Psychology
– Individualized Study: Quantitative Emphasis
2011-2013
- **Luther College** Decorah, Iowa
B.A. Psychology
– Thesis: The Effect of Mental Imagery on Performance in Golf.
– Cum Laude
Graduated 2010

Awards/Honors

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

Ruth L. Kirschstein National Research Service Award, January 2015

Predocutorial trainee on the Multidisciplinary Research Training in Gerontology Grant at USC

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.

Publications & Presentations

Published Papers and Abstracts

Ammerman, B. A., **Jacobucci, R.**, Kleiman, E. M., Muehlenkamp, J. J., & McCloskey, M. S. (in press).

Development and validation of empirically derived frequency criteria for NSSI disorder using exploratory data mining, *Psychological Assessment*.

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

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. PMCID: 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

Manuscripts Under Review

Jacobucci, R., Grimm, K. J., & McArdle, J. J. (Under Review). A comparison of methods for uncovering sample heterogeneity: Structural equation model trees and finite mixture models, *Structural Equation Modeling*.

Ammerman, B. A., **Jacobucci, R.**, Kleiman, E. M., Uyeji, L., & McCloskey, M. S. (Under Review). The impact of NSSI age of onset on severity and suicidality. *Suicide and Life Threatening Behavior*.

Presentations

Jacobucci, R., Grimm, K. J., McArdle, J. J. (2016, July). *Comparison of frequentist and Bayesian regularization in structural equation modeling*. Paper to be 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

Jacobucci, R., Hayes, T., Zelinski, E. (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

Published

Jacobucci, R. (2016). regsem: Performs Regularization on Structural Equation Models (version 0.1.2) [Software]. Available from <https://cran.r-project.org/web/packages/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>

Research Experience

- **Research Assistant** Fall 2014-Present
Supervisor: Dr. Elizabeth Zelinski, USC
I am currently using both structural equation models and statistical learning methods to compare the Long Beach Longitudinal Study to the Health and Retirement Study. Some of the main analyses include using the sample weights in HRS to create sample weights in LBLS as well as using SEM to model cognitive decline in LBLS. My main focus is on evaluating different methods of creating sample weights can make the results of a convenience sample, LBLS, more generalizable and to what degree.
- **Research Assistant** Fall 2013-Present
Supervisor: Dr. John J. McArdle, USC
In working with data from Project TALENT (PT), I have conducted both exploratory and confirmatory factor analyses in R and MPlus to determine the factor structure of 60+ cognitive variables. Using these models, in addition to 2000+ other variables collected in the initial and follow up samples, I have used the semtree package to determine relationship between these covariates and factor model parameters. Because of the complexity of models and size of sample, I have utilized the Center for High-Performance Computing and Communication's (HPCC) supercomputer. Finally, I have used multiple item response theory (IRT) models on item level data from 20 cognitive ability scales to determine the best model.
- **Psychometric Expert** Summer 2013-Spring 2014 Supervisor: Dr. John J. McArdle, USC
Worked closely with Dr. Jiu-Chiuan Chen and Dr. Yong Cen through the Preventative Medicine department at USC in the modeling and prediction of cognitive decline in two large longitudinal datasets. Responsibilities include using structural equation modeling (SEM) to construct models to predict Alzheimer's disease, item response theory and factor analysis to evaluate the factor structure and precision of multiple cognitive measures, and Monte Carlo simulation to conduct multiple power analyses for grant preparation. I have also built on this work in conducting first and second-order latent growth models, mixture models, among other multivariate techniques.

- **Principal Investigator** Summer 2012-Spring 2013, *Personality and Cognitive Ability in Civilly Committed Sexual Offenders*
Supervisor: Dr. John E. Williams, UNI
Conducting group administration of cognitive ability and personality measures at the Civil Commitment Unit for Sexual Offenders in Cherokee, Iowa. Responsibilities included conducting a literature review, designing an original study, coordinating with administrators at the civil commitment unit, administration of ability and self-report measures to patients, entering, cleaning, and analyzing data in SPSS.
- **Principal Investigator** Summer 2012-Fall 2012, *Personality, Cognitive Functioning, Adaptive Behavior, and Criminogenic Needs*
Supervisor: Dr. John E. Williams, UNI
Conducting archival data collection at the Iowa Medical and Classification Center in Coralville, Iowa. Examine cognitive ability, academic achievement, personality, risk assessment, and conviction charges.
- **Principal Investigator** Fall 2011-Summer 2012, *The Role of Grit, Self-Control, and Conscientiousness in Academic Achievement*
Supervisor: Dr. John E. Williams, UNI
Conducted group administration of self-report measures of personality and academic achievement in a college sample. Responsibilities included the administration of self-report measures to high school and college populations, entering, cleaning, and analyzing data in SPSS, and writing up in APA style manuscript.
- **Research Assistant** Fall 2012-Summer 2013
Supervisor: Mike Whitson, iTracking Research, Inc.
Assist in research design, methodologies, and conducting statistical analyses in R and SPSS. Assembled scripts for analyses, cleaned datafiles, constructed and ran SEM models in AMOS, composed graphs of analyses, and other duties as needed.
- **Research Assistant** Fall 2012-Summer 2013
Supervisor: Dr. Andrew R. Gilpin, UNI
Assist in conducting background research and conceptualizing a Monte Carlo simulation study that examines the effectiveness of basing sample size planning on the results of pilot studies.
- **Research Assistant** Spring 2012-Spring 2013
Supervisor: Dr. Nicole Skaar, UNI
Design and run confirmatory factor analyses in AMOS and R on a measure of risk behavior. Conduct IRT analysis of Iowa Youth Survey data.
- **Lab Coordinator** Summer 2012-Fall 2012, Psychometrics and Personality Lab
Supervisor: Dr. John E. Williams, UNI
Responsibilities include coordinating lab related meetings and activities. Additionally, conduct meetings that teach research methods related to the current lab research.

Teaching Experience

- **Teaching Assistant**
Fundamentals of Psychological Measurement, Fall 2014 (graduate: Dr. John J. McArdle, USC)
History & Systems, Spring 2013 (undergraduate: Dr. Andrew R. Gilpin, UNI)
Psychology of Music, Spring 2013 (undergraduate: Dr. Carolyn Hildebrandt, UNI)
Advanced Graduate Statistics, Fall 2012 (graduate: Dr. Andrew R. Gilpin, UNI)
Cognitive & Intellectual Assessment, Fall 2012 (graduate: Dr. John E. Williams, UNI)
Honor's Introduction to Psychology, Fall 2012 (undergraduate: Dr. John E. Williams, UNI)
Introduction to Psych Statistics, Spring 2012 (undergraduate: Dr. Andrew R. Gilpin, UNI)
Memory & Language, Fall 2011 (undergraduate: Dr. Jack Yates, UNI)

AD HOC JOURNAL REVIEWING

- Multivariate Behavioral Research

Consultation

- **iTracking Research, Inc.** Summer 2013-Fall 2013
Assisted in the methodological development of the analysis of Parkinson's Disease through the use of eyetracking. Developed scripts in R to organize the data for analysis as well as for the use of machine learning algorithms to predict outcomes.

Affiliations

- International Society for Intelligence Research
- Gerontological Society of America

Skills

- **Statistical Software**
R, Mplus, Winsteps, flexMIRT, SAS, SPSS, Amos
- **Assessment Administration through Coursework** Fall 2011-Spring 2012
Trained on the following measures: Minnesota Multiphasic Personality Inventory -Second Edition, Revised Form, and Adolescent Form; Personality Assessment Inventory-Adult and Adolescent Forms; Structured Clinical Interview for DSM Disorders; Structured Clinical Interview for DSM Personality Disorders; Weschlers Adult Intelligence Scale-Fourth Edition; and Woodcock Johnson Achievement Test-Third Edition.

References

John J. McArdle, Ph.D., University of Southern California
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Elizabeth Zelinski, Ph.D., University of Southern California
Professor of Gerontology and Psychology
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Mike Whitson, iTracking Research, Inc.
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Nicole Skaar, Ph.D., University of Northern Iowa
Assistant Professor of School Psychology
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