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Josue E. Rodriguez

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EDUCATION

University of California, Davis — Davis, CA
PhD, Quantitative Psychology — Expected 2023
Emphasis in Computational Social Science

Cal Poly Humboldt — Arcata, CA
MA, Experimental Psychology — 2019
Minor in Statistics
BA, Psychology — 2017

PUBLICATIONS

Peer-reviewed

6. **Rodriguez, J. E.**, Williams, D. R., & Bürkner, P.-C. (2021). Heterogeneous Heterogeneity by Default: Testing categorical moderators in random-effects meta-analysis. Accepted at the *British Journal of Mathematical and Statistical Psychology*. preprint.

5. **Rodriguez, Josue E**, Williams, D. R., & Rast, P. (2022). Who is and is not "average"? random effects selection with spike-and-slab priors. *Psychological Methods*. https://doi.org/10.1037/met0000535. preprint.

4. Williams, D. R., & **Rodriguez, Josue E**. (2022). Why overfitting is not (usually) a problem in partial correlation networks. *Psychological Methods*. https://doi.org/10.1037/met0000437. preprint.

3. **Rodriguez, Josue E**, & Williams, D. R. (2022b). Psymetadata: An r package containing open datasets from meta-analyses in psychology. *Journal of Open Psychology Data*, *10*(1)

2. **Rodriguez, Josue E.**, & Williams, D. R. (2022a). Painless Posterior Sampling: Bayesian Bootstrapped Correlation Coefficients. *The Quantitative Methods for Psychology*, *18*(1), 39–54. https://doi.org/10.20982/tqmp.18.1.p039 preprint.

1. Karr, J. E., **Rodriguez, Josue E.**, Goh, P. K., Martel, M. M., & Rast, P. (2022). The unity and diversity of executive functions: A network approach to life span development. *Developmental Psychology*, *58*(4), 751–767. https://doi.org/10.1037/dev0001313

Under Review

2. Karr, J. E., **Rodriguez, J. E.**, Goh, P. K., Martel, M. M., & Rast, P. (2021). A network analysis of executive functions in children and adolescents with and without attention-deficit/hyperactivity disorder. Under review at *Journal of Attention Disorders*.

1. Williams, D. R., **Rodriguez, J. E.**, & Bürkner, P.-C. (2021). Putting Variation into Variance: Modeling between-study heterogeneity in meta-analysis. Under review at *Psychological Methods*. preprint.

Working Papers

2. Rast, P., Martin, S. R., & **Rodriguez, J. E.** (2020). Bayesian multivariate garch models for within-person variance forecasting. preprint.

1. **Rodriguez, J.E.**, Williams, D. R., Rast, P., & Mulder, J. (2020). On Formalizing Theoretical Expectations: Bayesian Testing of Central Structures in Psychological Networks. https://doi.org/10.31234/osf.io/zw7pf preprint.

POSTER PRESENTATIONS

7. Karr, J. E., **Rodriguez, J. E.**, Rast, P., & Martel, M. M. (2021). Applying network analysis to executive functions: Differences in network parameters between children with and without attention-deficit/hyperactivity disorder [50th Annual Meetingn of the International Neuropsychological Society]

6. Hang, S., **Rodriguez, J. E.**, Garcia, R., & Kilgore, H. (2018). Assessment of peripheral BDNF variability over 30 days in healthy adults [48th annual meeting of the Society for Neuroscience. San Diego, CA, United States.]

5. Chu, B., **Rodriguez, J. E.**, Sherburne, B., & Gaffney, A. M. (2018). Hella dope, confident understanding mediates the relationship between slang and multiple belonging needs [16th meeting of the International Conference on Language and Social Psychology. Edmonton, Alberta, Canada.]

4. Ortiz, N., **Rodriguez, J. E.**, Sherburne, B., Joma, V., & Aberson, C. (2018). Blaming it on affirmative action: Perceptions of denied opportunity [98th annual meeting of the Western Psychological Association. Portland, OR, United States.]
3. Siefert, E., Scott, B., **Rodriguez, J. E.**, Chu, B., Kijsriopas, B., & Gaffney, A. M. (2018). Confidence of understanding mediates the relationship between ingroup slang and a sense of peer similarity [98th annual meeting of the Western Psychological Association. Portland, OR, United States.]
2. Kuljian, O., Sherburne, B., Camarena, J., **Rodriguez, J. E.**, Hackett, J. D., & Gaffney, A. M. (2018). Effects of nationalist leadership on identification with humanity [19th annual meeting of the Society for Personality and Social Psychology. Atlanta, GA, United States.]
1. **Rodriguez, J. E.**, Sanchez, K., Camarena, J., Clark, C., & Swancoat, B. (2017). Mazes and memory: Lifestyle and experience in spatial ability [97th annual meeting of the Western Psychological Association, Sacramento, CA, United States.]

SOFTWARE

6. **SSranef** (creator). An R package for Bayesian mixed effects models with spike-and-slab priors on the random effects. Corresponds to the methods in rodriguez2021who. GitHub.
5. **blsmeta** (author). An R package for Bayesian meta-analytic models, including fixed-effects, two-level, and three-level random-effects models. Moderators can be included for both the location and scale parameters via location-scale modeling. GitHub.
4. **psymetadata** (creator). An R package containing a collection of documented open datasets from meta-analyses in psychology research CRAN. GitHub.
3. **glaxo** (creator). An R package implementing the relaxed lasso algorithm for Gaussian Graphical Models GitHub.
2. **BBcor** (author). An R package for efficient sampling from the posterior distribution of various correlation coefficients. CRAN. GitHub.
1. **bayeslincom** (creator). An R package for testing linear combinations of Bayesian posterior samples. CRAN. GitHub.

TEACHING EXPERIENCE

Graduate Student Teaching Assistant — University of California, Davis
Statistical Analysis of Experiments
Regression Modeling

Graduate Student Teaching Assistant — Cal Poly Humboldt
Introduction to Statistics
Social Psychology

COURSEWORK

- Probability Theory
- Analysis of Variance
- Multivariate Statistics
- Applied Bayesian Statistics
- Multilevel Modeling
- Regression Analysis
- Computational Social Science
- Psychometrics
- Causal Modeling

HONORS AND AWARDS

- NASEM FORD Fellowship, Honorable Mention — 2020
- Outstanding Student of the Year Nominee, Cal Poly Humboldt — 2017
- Presidential Scholar, Cal Poly Humboldt — 2017
- Woolford Fellow of the Eureka Rotary Club — 2017

PROFESSIONAL CERTIFICATIONS

DataCamp
Data scientist with Python 2018
Data scientist with R 2018

TECHNICAL SKILLS

- **Programming:** R (expert), Python (proficient), SQL (proficient), HTML (competent), CSS (novice), C# (novice)
- **Tools:** LaTeX, Git, Docker, SPSS, Mathematica, Tableau, MATLAB, Snowflake, Airflow

AD-HOC REVIEWER

- Entropy (under the Supervision of Dr. Philippe Rast)
- Advances in Methods and Practices in Psychological Science