

Brian Rivera

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EDUCATION

- 2021 **Ph.D. in Educational Psychology, Educational Neuroscience Concentration**
Department of Educational Studies, University of Alabama, Tuscaloosa, AL
Advisor: Firat Soylu, PhD
Dissertation: The neurocognitive mechanisms of arithmetic knowledge verification
- 2015-2016 **Post-baccalaureate studies, Cognition and Action Lab**
University of Massachusetts, Amherst, MA
Advisor: Rebecca Spencer, PhD
- 2013 **B.A., Scientific and Philosophical Studies of the Mind**
Franklin & Marshall College, Lancaster, PA

ACADEMIC POSITIONS

- 2023- current **Assistant Research Professor**
Department of Psychology, University of Nebraska-Lincoln, Lincoln, NE
- 2021- 2023 **Postdoctoral Research Associate**
Department of Psychology, University of Nebraska-Lincoln, Lincoln, NE
Advisor: Timothy Nelson. PhD

PUBLICATIONS

Published Papers

Salehzadeh, R., **Rivera, B.**, Man, K., Jalili, N., & Soylu, F. (2023). EEG Decoding of Finger Numeral Configurations With Machine Learning. *Journal of Numerical Cognition*, 9(1), 206-221. <https://doi.org/10.5964/jnc.10441>

Rivera, B., & Soylu, F. (2021). Incongruity in fraction verification elicits N270 and P300 ERP effects. *Neuropsychologia*, 161, 108015. <https://doi.org/10.1016/j.neuropsychologia.2021.108015>

Soylu, F., **Rivera, B.**, Anchan, M., & Nathaniel, N. (2019). ERP differences in processing canonical and non-canonical finger numeral representations. *Neuroscience Letters*. <https://doi.org/10.1016/j.neulet.2019.04.032>

Conference Proceedings

Rivera, B., & Soyly, F. (2018). Semantic Processing in Fraction Comparison: An ERP Study. Paper submitted to the 40th Annual Conference of the Cognitive Science Society. Madison, WI: Cognitive Science Society

PRESENTATIONS

National and International Conference Presentations

- Rivera, B. (2022).** The Neurocognitive Mechanisms of Arithmetic Verification in Children. Poster presented at the Cognitive Development Society Bi-Ennial Conference. Madison, WI: April, 2022.
- Rivera, B., & Soyly, F. (2019).** The ERP Effects of Shared Components in Fraction Comparisons. Poster presented at the Annual Meeting of the Mathematical Cognition and Learning Society. Carleton University, Ottawa, Canada: June, 2019
- Rivera, B., & Soyly, F. (2018).** The Effects of Shared Components in Fraction Comparisons: Evidence From ERPs. Poster presented at the 6th Biennial International Mind Brain and Education Conference. The University of Southern California, Los Angeles, CA: September, 2018
- Rivera, B. (2018).** Online Experiments with Wolfram Technologies. Poster presented at the 2018 Wolfram Technology Conference. Urbana-Champaign, IL: October, 2018
- Rivera, B., Shannon, N., & Soyly, F. (2017).** ERP Markers for Number Gesture Processing. Poster presented at SACNAS The National Diversity in STEM Conference. Salt Lake City, UT: October, 2017
- Rivera, B. & Park, J. (2016).** Chunking During Child Visomotor Sequence Learning. SPINES Summer Program, Marine Biology Lab, Woods Hole, MA: July, 2016

TEACHING EXPERIENCE

Course Instructor

University of Alabama, College of Education - *Research Methods in Ed. Neuro*, Spring 2021
University of Alabama, College of Education - *Intro to Learning Skills & Strategies*, Spring 2020
University of Alabama, OLLI - *A History of Information*, Summer 2019

Teaching Assistant

University of Alabama, College of Education - *Intro to Learning Skills & Strategies*, Fall 2019
University of Alabama, College of Education - *Research Methods in Ed. Neuro*, Spring 2018

INVITED PRESENTATIONS

Invited Speaker

Rivera, B. (2022). How Does the Brain Do Math? Lessons From the Study of Fractions. Talk presented at the Mathematics Department Colloquium series, University of Nebraska, Omaha.

AWARDS AND FELLOWSHIPS

2023	ERP Boot Camp Attendance Award, San Diego, CA
2018	Wolfram Summer School Attendance Award, Waltham, MA