

Rebecca Polk

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EDUCATION

M.S., University of Florida

Department of Psychology, Gainesville, FL

Dual-Specialization:

Developmental Psychology

Behavioral and Cognitive Neuroscience

Master of Science: Psychology (*in progress*)

In progress

B.S., Indiana University – Bloomington

Department of Psychological and Brain Sciences, Bloomington, IN

Bachelor of Science: Neuroscience (Honors), Psychology

Biology minor; Animal Behavior Certificate

May 2015

CONFERENCE POSTERS AND PRESENTATIONS

Polk, R., Lin, T., Rana, M., Ojeda, M.C., Liu, P., Bowers, D., Sitaram, R., Ebner, N.C. (2020, June). *Training selective attention in older adults via real-time fMRI based neurofeedback*. Poster accepted for the Organization for Human Brain Mapping annual meeting in Montreal, Canada. (online format due to COVID-19)

Horta, M., Lin, T., **Polk, R.**, Feifel, D., & Ebner, N. C. (2020, February). *Effects of chronic intranasal oxytocin administration on dynamic emotion identification in older adults*. Poster Presented at the Tenth Annual Institute for Learning in Retirement Student Research on Aging Poster Competition and the Robert Levitt Awards at Oak Hammock, Gainesville, FL.

Valdez-Hernandez, P.A., Horta, M., Frazier, I., Porges, E.C., **Polk, R.**, Perez, E., Ojeda, M., Cruz-Almeida, Y., Morris, J.P., Feifel, D., & Ebner, N.C. (2019, October). *Chronic oxytocin administration in older men modulates functional connectivity of the posterior superior temporal sulcus during social perception*. Oral presentation at the Society for Neuroscience annual meeting in Chicago, IL.

Pehlivanoglu, D., **Polk, R.**, Lin, T., Horta, M., Frazier, I., Ziaei, M., Feifel, D., Ebner, N. C. (2019, June). *Chronic intranasal oxytocin administration in older men modulates decisions*

about facial trustworthiness as a function of eye gaze and facial age. Poster presented at the Interdisciplinary Society for Decision Neuroscience biennial meeting in Durham, NC.

Liu, P., Lin, T., **Polk, R.**, Feifel, D., Ebner, N. C. (2019, June). *Modulatory effects of intranasal oxytocin administration on large-scale brain functional networks with benefits on social decision-making in adulthood.* Oral presentation at the Interdisciplinary Society for Decision Neuroscience biennial meeting in Durham, NC.

Myers, E., Lussier, D., Horta, M., Frazier, I., **Polk, R.**, Feifel, D., & Ebner, N. C. (2019, June). *4 week intranasal oxytocin increases insula volume and associated empathy scores in aging.* Poster presented at the Organization for Human Brain Mapping annual meeting in Rome, Italy.

Myers, E., Lussier, D., Horta, M., Frazier, I., **Polk, R.**, Feifel, D., & Ebner, N. C. (2019, January). *Increase in empathy and insula volume after 4-week intranasal oxytocin administration in older adults.* Poster presented at the 9th Annual North Central Florida Chapter of the Society for Neuroscience Conference in Gainesville, FL.

Hutslar, C., **Polk, R.**, Atkinson, E., Macy, J., Chassin, L., Presson, C., Finn, P., Brown, J. W. (2018, November). *Distinct neural mechanisms of monetary and drug reward seeking decisions under uncertainty.* Poster presented at the Society for Neuroscience annual meeting in San Diego, CA.

Polk, R. J., Lake, A. J., Finn, P. R., James, T. W. (2018, April). *Attentional biases for negative affective stimuli in externalizing populations.* Poster presented at the Society for Affective Science annual meeting in Los Angeles, CA.

Polk, R., Falco, C., and Finn, P. R. (2017, June). *Alcohol problems, self-regulation, and internalizing psychopathology in gender discrepant individuals.* Poster presented at the Research Society on Alcoholism annual meeting in Denver, CO.

Polk, R., and Finn, P. R. (2016, June). *Alcohol use disorder and conduct disorder: cognitive capacity and borderline symptoms.* Poster presented at the Research Society on Alcoholism annual meeting in New Orleans, LA.

Polk, R., James, T., Nikoulina, A., and Finn, P. R. (2015, October). *Music and risk-taking: does sexual content have an effect on women's decisions to drink?* Poster presented at the Society for Social Neuroscience 2015 annual meeting in Chicago, IL.

HONORS AND AWARDS, AND GRANTS

National Institute on Aging Research Training in Non-Pharmacological Interventions for Cognition in Aging, MCI, and Alzheimer's Disease

\$25,000 stipend plus tuition waiver for three years

Fall 2020—Spring 2023

University of Florida Psychology Department Travel Award \$600 for travel to the Organization for Human Brain Mapping conference	Summer 2020
The Jacquelin Goldman Research Award \$4,980 for research expenses over two years	Spring 2020 – Fall 2021
The Jacquelin Goldman Recruitment Scholarship \$6,000 per year for five years to fund summer research	Fall 2018 – Spring 2023
IU Excellence Scholarship \$9,000 per year for four years	Fall 2011 – Spring 2015

TEACHING EXPERIENCE

Teaching Assistant University of Florida, Department of Psychology Advisor: Dr. Ron Chandler Course: Positive Psychology	Spring 2020
Teaching Assistant University of Florida, Department of Psychology Advisor: Dr. Feihong Wang Course: Abnormal Psychology	Fall 2019
Teaching Assistant University of Florida, Department of Psychology Advisor: Dr. Dana Wood Course: Developmental Psychology	Spring 2019
Teaching Assistant University of Florida, Department of Psychology Advisor: Dr. Marina Klimenko Course: Developmental Psychology	Fall 2018

GUEST LECTURES

Positivity: A Focus in Aging Positive Psychology, University of Florida, Dr. Ron Chandler	Spring 2020
Neurocognitive Changes: Social-Cognitive Abilities in Aging Populations Abnormal Psychology, University of Florida, Dr. Feihong Wang	Fall 2019

WORKSHOPS ATTENDED

Bayesian Workshop University of Florida (online format due to COVID-19)	August 2020
Neurohackademy 2020: Summer School in Neuroimaging and Data Science Online format due to COVID-19	July 2020
Organization for Human Brain Mapping (OHBM) BrainHack Online format due to COVID-19	June 2020
AFNI/SUMA Neuroimaging Workshop Indiana University	November 2019
Tidyverse: An Introduction to R for Data Science University of Florida	September 2019
Summer School in Social Neuroscience and Neuroeconomics Duke University	June 2019
ERP Mini Bootcamp University of Florida	August 2018

RESEARCH EXPERIENCE

Graduate Researcher Social-Cognitive and Affective Development Laboratory Primary Investigator: Natalie C. Ebner, Ph.D. University of Florida, Department of Psychology NIH/NIA R21 AG057200-02, <i>Determining Plasticity of Brain-Regulatory Mechanisms Related to Emotion Processing: A Neurofeedback Approach in Aging and Parkinson Disease</i> This study aims to investigate cognitive and emotional changes that occur with aging using a neural regulation paradigm in a real-time functional neurofeedback approach.	June 2018 – Present
NIH/NIA P30 AG028740, <i>Role of Oxytocin in Inflammation</i> This research investigates the physical, cognitive, and socioemotional effects of chronic oxytocin administration in older adults.	
NIH/NIA R01 AG057764-01A1, <i>Uncovering and Surveilling Financial Deception Risk in Aging</i> This research explores cognitive, emotional, and neurobiological changes that occur with aging in the context of online financial deception and cybersecurity attacks.	
Research Associate Biobehavioral Alcohol Research Laboratory Primary Investigator: Peter R. Finn, Ph.D.	June 2015 – June 2018

Indiana University – Bloomington, Department of Psychological and Brain Sciences
 NIAAA R01 AA13650-11, *Behavioral Disinhibition and Early Onset Alcoholism*

This grant investigated cognitive capacity, including attentional and working memory capacity, in individuals with alcohol use disorders and other externalizing psychopathology.

Research Assistant

May 2014 – June 2018

Perception Action Neuroimaging Laboratory

Primary Investigator: Thomas James, Ph.D.

Indiana University – Bloomington, Department of Psychological and Brain Sciences

Research investigating social context's influence on decisions to drink alcohol and identifying neural correlates of social and emotional processing.

Research Assistant

March 2017 – June 2018

Cognitive Control Laboratory

Primary Investigator: Joshua Brown, Ph.D.

Indiana University – Bloomington, Department of Psychological and Brain Sciences

NIDA R21 DA040773-01A1, Neural Mechanisms of Addictive Drug-Taking Decisions

Investigation of neural circuits involved in risky decision-making and reward in drug dependent (nicotine) populations.

PROFESSIONAL MEMBERSHIPS

Ad hoc reviewer

2020 –Present

Scientific journals:

- Social Cognitive and Affective Neuroscience
- Current Directions in Psychological Science

SERVICE

Women in Science and Engineering

2018 –Present

North Central Florida Society for Neuroscience Chapter

2018 –Present

Diversity Affirmation and Awareness

2018 –Present

SKILLS

- Computational Experience
 - Coding languages: Bash and tesh shell scripting, MatLab, Python, R/Rstudio
 - Software
 - Neuroimaging analysis: AFNI, Freesurfer, fMRIprep, FSL, Conn, SPM, Gannet, MRIQC, tedana
 - Behavioral analysis: JASP, MatLab, R/Rstudio, SPSS
 - Data management: Docker, High-performance computing (HPC), Jupyter Lab/Jupyter Notebook, MobaXterm, Singularity
- Methodological and Analysis Training

- Open science practices: reproducible neuroimaging (BIDS, fMRIPrep, MRIQC, ReproIn, tedana), Open Science Framework (OSF)
- Neuroimaging analysis (fMRI, sMRI/DWI, MRS)
- Eye-tracking
- Statistical training in frequentist and Bayesian analyses