KATIE R. JOBSON

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EDUCATION

Temple University, Philadelphia, PA
PhD in Psychology   August 2020 - present
- Concentration in Quantitative Methods

Advisor: Dr. Ingrid R. Olson
Dissertation: *Neural biomarkers of language and social outcomes in infants*

Temple University, Philadelphia, PA
MS in Neuroscience   June 2020
- Concentration in Cognitive Neuroscience

Advisor: Dr. Ingrid R. Olson
Thesis: *White Matter Microstructure Underlying Empathy and Mentalizing*

Arcadia University, Glenside, PA   May 2018
BA in Psychology
Advisor: Dr. Katherine S. Moore
Capstone: *Effect of Background Context on Visual Search*

RESEARCH SUPPORT

NICHD 1F31HD115005, "Language and the cerebellum." The focus of this grant is to investigate the cerebellum's role in language processing, specifically syntax.
Dates = 12/1/2023 – 12/1/2024.
Role: PI

CURRENT INTERESTS

- How structural connectivity mediates social knowledge, language, and cognition.
- Structural and functional connectivity of the cerebellum and its role in non-motor functions, including how cerebellar damage can cause language dysfunction and autism spectrum disorder.
- The cerebellum's impact on language and social development.
- **Dissertation work**: investigating the cerebellum's role in language and social cognition throughout development using diffusion-weighted imaging techniques.

PUBLICATIONS AND POSTERS

Peer-Reviewed Publications

1. **Jobson, K. R.**, Arantes de Oliveira Campos, G., & Olson, I. R. (2023). Developmental lags in language predict autism spectrum disorder symptoms. *Autism, in prep.*
2. **Jobson, K. R.**, Arantes de Oliveira Campos, G., Litwin, J., & Olson, I. R. (2023). The Cerebellum, Language, and Autism Spectrum Disorder. *The Cerebellum, in prep.*
3. Holmqvist, A., **Jobson, K. R.**, DeSalme, D., Simone, S. M., Tassoni, M., McKniff, M., Yamaguchi, T., Olson, I., Martin, N., & Giovannetti, T. (*Accepted with minor revisions*). Preliminary Validation of the Virtual Kitchen Challenge as an Objective and Sensitive Measure of Everyday Function Associated with Cerebrovascular Disease. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring.*
4. Sullivan-Toole, H., **Jobson, K. R.**, Hoffman, L., Olson, I.R., & Olino, T.M. Adolescents at-risk for depression show increased in white matter microstructure with age across diffuse areas of the brain. *Developmental Cognitive Neuroscience*, 64: 101307.
5. Tanrıverdi B., Cowan E. T., Metoki A., **Jobson K. R.**, Murty V. P., Chein J., & Olson I. R. Awake Hippocampal-Cortical Co-reactivation Is Associated with Forgetting. (2023). *Journal of Cognitive Neuroscience,* 15: 1-17.

6. Olson, I. R., Hoffman, L. J., **Jobson, K. R.**, Popal, H., & Wang, Y. (2023). Little brain, little minds: The big role of the cerebellum in social development. *Developmental Cognitive Neuroscience*, 60: 101238.
7. **Jobson, K. R.**, Hoffman, L. J., Metoki, A., Popal, H., Dick, A. S., Reilly, J., & Olson, I. R. (2022). Language and the cerebellum: structural connectivity to the eloquent brain. *Neurobiology of Language*, 1-24.
8. **Jobson, K. R.**, Sansavere, K. S., & Moore, K. S. (2022). Visual search templates are modified by a perceived lighting change. *Manuscript returned to revise and resubmit*, *Quarterly Journal of Experimental Psychology*.
9. Reilly J., Kelly A., Zuckerman B., Wells M., Twigg P., **Jobson, K. R.** & Flurie M. (2020). Building the perfect curse word: A psycholinguistic investigation of the form and meaning of taboo words. *Psychonomic Bulletin & Review,* 27: 139-148.
10. Brown, C., Troy, N., **Jobson, K. R.**, & Link, J. (2018). Contextual and Personal Determinants of Preferring Success Attributed to Natural Talent or Striving. *Journal of Experimental Social Psychology*, 78: 134-147.

Conference Posters

1. **Jobson, K. R.**, Hirsh-Pasek, K., Reilly, J., & Olson, I. R. (2023, October). The cerebellum and its contributions to the developing linguistic cerebrum. Poster presented at the 2023 Neurobiology of Language Conference in Marseille, France.
2. Holmqvist, A., **Jobson, K. R.**, DeSalme, D., Simone, S. M., Tassoni, M., McKniff, M., Yamaguchi, T., Olson, I., Martin, N., & Giovannetti, T. (2023, July). Relationship between a novel virtual reality test of mild functional difficulties and cerebrovascular disease. Poster presented at the 2023 Alzheimer's Association International Conference.
3. Sullivan-Toole, H., **Jobson**, **K. R.**, Stewart, L.C., Hoffman, L., Leong, J.K., Olson, I.R., & Olino, T.M. (2023, April). Adolescents at-risk for depression show diffuse increases in white matter microstructure with age, including regions consistent with subcortical projection pathways implicated in depression. Poster to be presented at the annual Social and Affective Neuroscience Society meeting, Santa Barbara, CA.
4. Brucato, M., **Jobson, K. R.**, Chein, J. M., Newcombe, N. S., & Olson, I. R. (2022, April) White Matter Pathways Associated with Theory of Mind Support Spatial Perspective Taking. Cognitive Neuroscience Society, San Francisco, CA.
5. **Jobson, K. R.**, Hoffman, L. H., & Olson, I. R. (2021, March). White Matter Microstructure Underlying Empathy and Mentalizing. Poster presented at Cognitive Neuroscience Society Conference, Online.
6. **Jobson, K. R.**, Sansavere, K., & Moore, K. (2018, November). Context Modifies Expected Color Template in a Visual Search. Poster presented at *Psychonomics* Conference, New Orleans, LA.
7. Link, J., **Jobson, K. R.**, Troy, N. S., & Brown, C. M. (2017, March). The role of self-relevance in preference for striving versus natural talent. Poster presented at the 2017 *Eastern Psychological Association* Conference, Boston, MA.
8. Troy, N. S., **Jobson, K.**, Link, J., & Brown, C. M. (2017, March). A preference for strivers over naturals in every setting and cooperative tasks. Paper presented at the 2017 *Eastern Psychological Association* Conference, Boston, MA.

APPOINTMENTS

Board Member, **Coding Outreach Group**, Temple University   January 2022 - present
The Coding Outreach Group is a resource for students, both undergraduate
and graduate, to build and hone their coding skills.

- Host and oversee workshops for intermediate and beginner coders.
- Facilitate interactive sessions that encourage hands-on learning.
- Provide personalized guidance and support during office hours.
- Answer questions and offer explanations to help others overcome coding challenges.
- Contribute to the growth and success of the coding group.
- Nurture a vibrant community of learners passionate about coding.

AWARDS

Arthur and Helen Horvat Scholarship   2014-2020
- Awarded to students living in Luzerne County, Pennsylvania, whom are a science student and maintain a 3.0 out of a 4.0 GPA scale.

Martha Jean Hill Research Award   2018
- Awarded to the most promising experimental researcher in the graduating class of 2018.
- Nominated by a member of the department and unanimously agreed upon by the department.

Summer Housing Grant for Research   May 2015 – August 2015
- Given to students in good academic standing who are pursuing research over summers at Arcadia with a professor.

Arcadia Distinguished Scholarship   2014-2018
- Awarded to students based on academic performance in high school.

INVITED TALKS

Coding Outreach Group

Intro to SQL   August 2023
- Presented on the basics of *SQL*, a coding language frequently used in data science.

How to Create a Website Using GitHub Pages   June 2022
- Presented on the basics of *GitHub* and how to create your own personal website using GitHub Pages.

Coding Bootcamp for Beginners   2021 - 2023
- Created and presented a workshop on *Python* data cleaning for beginners.
- Facilitated learning of other topics (*bash & R languages*).

Using Linux and Temple's Computing Cluster   June 2021
- Presented on the use of *Linux-based machines* and how to use those machines for various neuroimaging programs.
- Taught basic programming for use of creating and submitting scripts to analyze data on the computing cluster, *OwlsNest*, at Temple University.

How to Create an Experiment in PsychoPy   June 2020
- Presented on the basics of how to create an experiment in both the Builder and Coder using *PsychoPy*.

LABORATORY EXPERIENCE

PhD Student, Temple University (Philadelphia, PA)   August 2020 – Present
Cognitive Neuroscience Lab, P.I. Dr. Ingrid Olson
- Conduct neuropsychological tests on younger and older adults.
- Create experiments using programs such as *Python, E-Prime.*
- Analysis of diffusion weighted imaging data using *FSL, MRTrix3* and *Python* software.

Research Assistant, Temple University (Philadelphia, PA)   September 2019 - July 2020
Aphasia Rehabilitation Research Lab, P.I. Dr. Nadine Martin
- Conduct neuropsychological tests for working memory, processing speed, executive function, and general language ability in older adults.
- Analysis of diffusion weighted imaging; segmentation of white matter hyperintensities using *UBO Detector*; free water correction in *DIPY (Python)*.

Visiting Researcher, Temple University (Philadelphia, PA)   September 2018 – present
Concepts and Cognition Lab, P.I. Dr. Jamie Reilly
- Assist in the design of EEG and eye-tracking experiments.
- Assist collecting EEG data.
- Analyze behavioral data using *R*.

Lab Manager, Arcadia University (Glenside, PA)   August 2015 – December 2017
Social Psychology Lab, P.I. Dr. Christina Brown
- Assisted in designing and creating hypotheses for behavioral experiments.
- Collected behavioral data via *Qualtrics* and *Mturk*.
- Coordinated with other lab members and assisted PI in writing publication.

MENTORSHIP

Undergraduate Student Mentees	**Graduate Student Mentees**
• Marah Dormuth • Angela Piecyk • Sarah Johnson • Giovanna De Oliveira Campos • Caroline George	• Riley Koch • Julia Foley

CONSULTING EXPERIENCE

Consultant, **Doctorate in Business Administration (DBA) Program**, Temple University   **January 2022 - present**
- Provide experimental and statistical expertise to doctoral students in the DBA program.
- Meet with students to provide feedback on experimental designs.
- Provide broad overviews of statistical concepts.
- Hold workshops on more advanced statistical concepts, such as mediation and moderation.
- Advise on statistical analysis for students' dissertation work.

TEACHING EXPERIENCE

Teaching Assistant - Statistics for Psychology   August 2020 – December 2020
Professor: Dr. Melinda Mattingly
- Ran the laboratory section for undergraduate introductory statistics course, including one recorded lecture per week.
- Taught statistics concepts within the analysis program, Jamovi.
- Held office hours for students to attend to clear up conceptual and technological issues.

Teaching Assistant – Foundations of Psychopathology   January 2022 – May 2022
Professor: Dr. Eunice Chen
- Assisted with proctoring exams.

Teaching Assistant – Foundations of Developmental   January 2022 – May 2022
Psychology
Professor: Dr. Ron Taylor
- Graded students' discussion posts and homework.
- Assisted with proctoring exams.

Teaching Assistant – Introduction to Psychology   August 2022 – December 2022
Professor: Dr. Robert Weisberg
- Taught recitation to 120 students weekly.
- Created lectures based on the current topics of the class.
- Held office hours to address issues and concerns about the topic material.
- Created exam questions based on recitation material.

SKILLS

Programming	Data Analysis	MRI Data Processing
• Python	• R	• FSL
• Bash/shell	• SPSS	• DIPY
• MATLAB	• Excel	• MATLAB
• JavaScript	• Jamovi	• MRTrix3
	• Mplus	• ANTS
	• SQL	• SPM

ATTENDED WORKSHOPS

DSI Studio Workshop
Dr. Frank Yeh, University of Pittsburgh
- Introductory workshop on DSI Studio software.

Structural Equation Modeling – A First Course
Dr. Gregory R. Hancock, University of Maryland
- Introductory course into structural equation modeling using Mplus.

Diffusion Imaging in Python
Eleftherios Garyfalidis, Indiana University
- Workshop on using Diffusion Imaging in Python (DIPY).