

WILL DECKER

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EDUCATION

Bachelor of Science in Psychology, Minor in German

May 2024

Louisiana State University, Baton Rouge, Louisiana, USA

GPA: 3.8/4.0

Thesis: The Architecture of Auditory Statistical Learning

RESEARCH EXPERIENCE

Honors Thesis Student/Research Assistant

2023 - Present

Representations and Learning Laboratory

Louisiana State University, Baton Rouge, Louisiana, USA.

Principle Investigator: Christopher Cox, PhD.

- Develop clear research questions and hypotheses through self-lead literature reviews.
- Design and complete undergraduate honors thesis from start to finish using advanced neuroscientific techniques (neuroimaging and computational), critical scientific thinking and writing.
- Learn and apply mathematical/statistical concepts/models from cognitive neuroscience.
- MRI safety trained.

Project Coordinator

2022 - Present

Language Environment and NeuroDevelopment Laboratory

Louisiana State University, Baton Rouge, Louisiana, USA.

Principle Investigator: Julie M. Schneider, PhD.

- Create, execute and lead studies ranging in scientific topics that use EEG.
- Oversee team of undergraduate students learning and using EEG.
- Develop and implement analyses protocol and pipeline for EEG and functional magnetic resonance imaging (fMRI).
- Present research at internal, undergraduate and national level conferences and symposia.

Research Assistant

2021 – 2022

Language Environment and NeuroDevelopment Laboratory

Louisiana State University, Baton Rouge, Louisiana, USA.

Principle Investigator: Julie M. Schneider, PhD.

- Administer language assessments (TOPEL, PPVT, DELV) to children between the ages of 3-5 years.
- Run participants taking part in behavioral language research.
- Code language transcriptions using Systematic Analysis of Language Transcripts (SALT)
- Build/set up EEG system and protocol from start to finish.

PRESENTATIONS†*

Decker, W., Schneider, J. M., Cox, C. (2023, October). The architecture of auditory statistical learning in the brain: a dynamical functional connectivity study. **Poster** presented at the Society for the Neurobiology of Language's annual meeting. Marseille, France.

Decker, W., Schneider, J. M. (2023, July). Neural signal processing for developmental data. **Lightning talk** presented at the annual LSU Summer Undergraduate Research Forum (SURF). Baton Rouge, Louisiana, USA.

Decker, W., Schneider, J. M. (2023, July). Is EEG really better left alone for developmental datasets. **Poster** presented at the annual LSU Summer Undergraduate Research Forum (SURF). Baton Rouge, Louisiana, USA.

Decker, W. (2023, April). Using neuroimaging to examine statistical learning. **Invited internal talk.** Louisiana State University, Baton Rouge, Louisiana, USA.

Carter, M.*, **Decker, W.***, Ferdaus, R.*, George, K.*, McDonald, J., Rivers, A.*, Shoulders, B.* (2023, April). Effects of note-taking methods on learning. **Poster** presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA.

Forest, M., Lopez, S., **Decker, W.,** Schneider, J. M. (2023, April). The role of vocabulary knowledge in linguistic encoding of motion events: an ERP study. **Poster** presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA.

Riley, W., **Decker, W.,** Haebig, E., Schneider, J. M. (2023, April). Learning novelties: the effects of rhyme, vocabulary, and processing speed on novel word learning in adults. **Poster** presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA.

Decker, W. (2023, April). A pipeline for developmental EEG data: an introduction. **Invited internal talk.** Louisiana State University. Baton Rouge, Louisiana, USA.

Decker, W., Fan, T., Haebig, E., Schneider, J. M. (2023, March). Neural mechanisms of novel word learning through rhyme in adults. **Poster** presented at the Cognitive Neuroscience Society's Annual Meeting. San Francisco, California, USA.

Lopez, S.L., Forest, M. L., **Decker, W.,** Schneider, J. M. (2023, March). The influence of native language on motion event encoding: an ERP study. **Poster** presented at the Cognitive Neuroscience Society's Annual Meeting. San Francisco, California, USA.

Fan, T., **Decker, W.,** & Schneider, J. M. (March 2023, March). Domain-specific neural profiles of statistical learning of speech and tone in young children. **Poster** presented at the Cognitive Neuroscience Society's Annual Meeting. San Francisco, California, USA.

Decker, W., Haebig, E., Schneider, J. M. (2022, November). Anxiety and Word Learning in College Students. **Poster** presented at the annual University of Louisiana at Lafayette Undergraduate Research Conference. Lafayette, Louisiana, USA. <https://osf.io/GNM8J>

Forest, M., Lopez, S., **Decker, W.,** Schneider, J. M. (2022, November). The influence of grammar on perception of repeated motion events. **Poster** presented at the annual University of Louisiana at Lafayette Undergraduate Research Conference. Lafayette, Louisiana, USA.

Wyble, A., **Decker, W.,** Haebig, E., Schneider, J.M. (2022, November). Rhyme and reason: the effects of rhyme on retrieval from semantic memory. **Poster** presented at the annual University of Louisiana at Lafayette Undergraduate Research Conference. Lafayette, Louisiana, USA.

Decker, W., Schneider, J.M. (2022, April). Choosing an EEG system: evaluating the pros and cons and quality of data among two different capping approaches. **Poster** presented at the annual Louisiana State University Discover Day Research Symposium. Baton Rouge, Louisiana, USA. <https://osf.io/6W4JF>

†Copies of presentations in which I was first author or equal contributor can be found on my [GitHub](#).

*Denotes equal contribution.

HONORS AND AWARDS

Distinguished Undergraduate Researcher Candidate

May 2024

LSU Discover Undergraduate Research Program

Louisiana State University, Baton Rouge, Louisiana, USA.

FUNDING

LSU Discover Undergraduate Summer Research Grant

May – August 2023

LSU Discover Undergraduate Research Program

Louisiana State University, Baton Rouge, Louisiana, USA.

Project title: A Universal Preprocessing-Pipeline for Event-Related Potentials (ERPs) in Developmental Electroencephalography (EEG) Research.

Amount: \$3,000

MEMBERSHIPS AND AFFILIATIONS

Society for the Neurobiology of Language

2023 – Present

Student Member

Cognitive Neuroscience Society

2022 – Present

Undergraduate Student Member

SKILLS & OTHER

Languages: English (native), German (C1)

Programming: MATLAB, Python, R, Bash

REFERENCES

Julie M. Schneider, Ph.D.

Assistant Professor

Department of Communication Sciences and Disorders

College of Humanities and Social Sciences

Louisiana State University

Email: juschnei@lsu.edu

Christopher Cox, Ph.D.

Assistant Professor

Department of Psychology

College of Humanities and Social Sciences

Louisiana State University

Email: chriscox@lsu.edu

Gundela Hachmann, Ph.D.

Associate Professor

Department of World Languages, Literatures & Cultures

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Louisiana State University

Email: ghachmann@lsu.edu