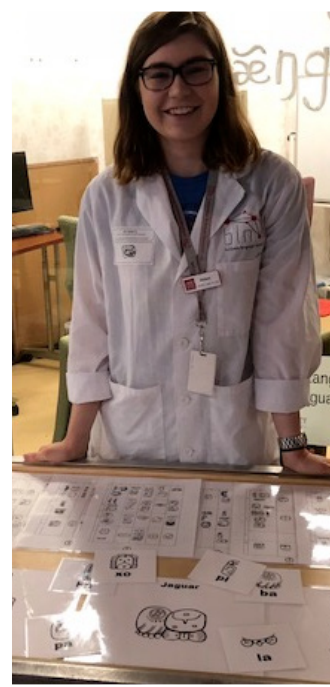


Language Sciences Research Lab

Annual Activity Report 2019



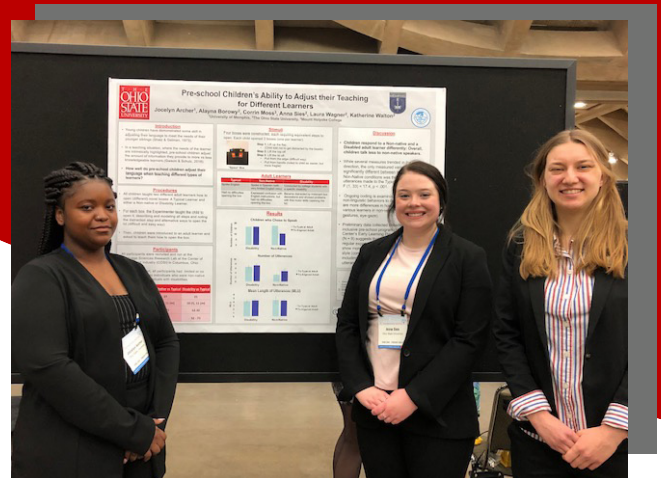
Discovery through Exploration

The Language Sciences Research Lab combines cutting-edge research, engaged outreach, and innovative education programs to create a unique space where Ohio State faculty and students come together with the visitors to the COSI museum to explore one of our most important human capacities: Language. Working together, we discover new ways to understand how language works and new ways to make our science accessible.



Thank you to all our ongoing and previous sources of funding:

The Departments of Linguistics, Speech & Hearing Science, and Psychology
The OSU Office of Research
The College of Arts and Sciences
The Division of Social and Behavioral Sciences
The OSU Office of Engagement and Impact
The Center for Cognitive & Brain Sciences
The Buckeye Language Network
The Battelle Foundation
The National Science Foundation



"By conducting research at the Pod, I'm able to perform outreach to the greater central Ohio community, letting them know what we do, and why it matters."

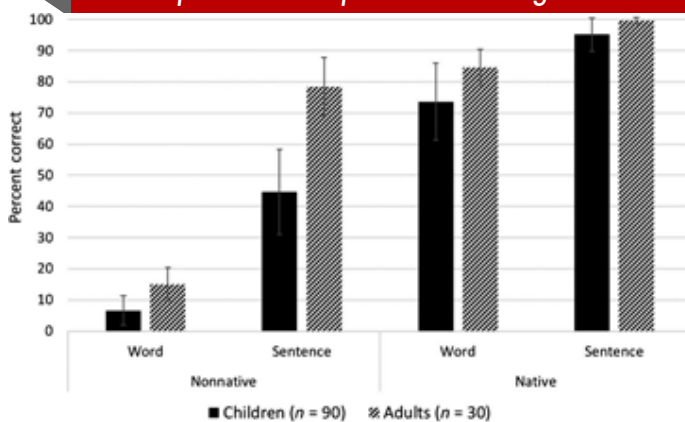
*Assistant Professor
Daniel Shanahan,
School of Music*

Pod Research

At our state-of-the-art research facility, OSU faculty from around the university conduct research with the aid of participating COSI visitors. Here are some of our recent results looking at the impact of accent differences on how we process language.

Sentence Context Helps Children Understand Nonnative Speech

Dr. Rachael Frush Holt
Department of Speech & Hearing Science



What we did:

English-speaking children and adults listened to sentences (context) or the excised final word from each of the sentences (no context) and repeated what they heard. Participants listened to either native-accented or nonnative-accented (Spanish- and Japanese-accented English) speech.

What we found:

Children and adults benefited from sentence context for both native and nonnative-accented speech, but benefit was greater for nonnative than native speech. Adults benefited more from context than children with nonnative speech, but the two age groups showed a similar benefit for native speech.

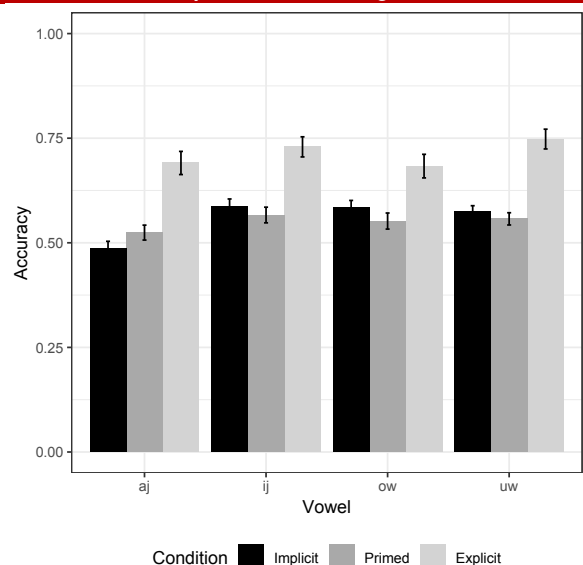
Why this matters:

Maturation between childhood and adulthood may increase the ability to capitalize on top-down cues for nonnative word identification. The results have implications for the perception of speech with source degradation, including speech sound disorders, hearing loss, or signal processing that does not faithfully represent the original signal.

Bent, T., Holt, R.F., *Miller, K., & *Libersky, E. (2019). Sentence context facilitation for children's and adults' recognition of native- and nonnative-accented speech. *J of Speech, Language, and Hearing Research*, 62, 423-433. Student co-authors marked with *

Instructions to Imitate Lead to More Imitation of Southern American English

Dr. Cynthia Clopper
Department of Linguistics



What we did:

Adults were asked to repeat words after a talker from Louisville, KY (implicit imitation), to repeat the words after being told where she was from (primed imitation), or to imitate the way she said the words (explicit imitation). We played these participants' word productions to a new set of adults to assess imitation in the word repetition task.

What we found:

The listeners in the second task were able to identify the repeated words as more similar than read words to the talker from Louisville, KY, but they were most accurate when the participants in the first study were asked to imitate.

Why this matters:

We naturally imitate other people when we interact with them, including their speech. This imitation happens automatically when we are asked to repeat after someone, but it can be enhanced when we are asked to imitate them.

A Summer of Discovery: NSF REU Site Program



Each summer, the Language Sciences Research Lab brings in a cohort of undergraduate students to provide an integrated research and outreach experience. With funding that was successfully renewed from the National Science Foundation, we are broadening access to the lab to include students from around the country who otherwise lack the opportunity to experience and participate in research and public engagement.

"Working with REU students each summer is always a rewarding and productive experience. They have published papers and presented at national conferences with me. They are amazing students!"

*Associate Professor Rachael Frush Holt,
Department of Speech & Hearing Science*



Discovery through Engagement

The lab has pioneered new ways of engaging the public to help them discover the wonder of language. Our activities cover a full range of language topics and visitors can learn about the Mayan hieroglyphic writing system, how to break down the names of dinosaurs, or how to trick a computer program with ambiguous sentences.



MADLY
AMBIGUOUS

"I never expected to be mentioned together with Lin-Manuel Miranda in The Atlantic!"

*Associate Professor Michael White,
Department of Linguistics*

*Read about the "Madly Ambiguous" outreach activity created by Mike White [here](https://bit.ly/2lhEhRV) or use this link:
<https://bit.ly/2lhEhRV>*





Language Sciences Research Lab Executive Committee

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Cynthia G. Clopper, Research Director
Professor, Department of Linguistics

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