



Linguistics in a Science Museum: Integrating Research, Teaching, and Outreach at the Language Sciences Research Lab

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Abstract

We describe the mission and practices of the Language Sciences Research Lab, a fully functional research lab embedded within a science museum. Within this environment, we integrate cutting-edge research, formal instruction, informal learning, and outreach to the public so that our work in each domain interacts with and enriches the others. We are guided by core concepts from the field of informal science education, and we strive to inspire excitement and expand both scholarly and public knowledge about the language sciences.

1. Introduction

In recent years, linguists have developed a range of ways to successfully integrate research, teaching, and outreach activities, motivated in part by a principle clearly articulated by Wolfram (2011:111): ‘If linguists firmly believe that understanding the nature of language is central to understanding human cognition and behavior, then we owe it to the profession to have more of a presence in public life.’ Research and teaching have been integrated in efforts to meaningfully involve students in research as participants (Wanjema et al. 2013) or as contributing researchers to long-term projects (Labov & Rosenfelder 2011; Maclagan & Gordon 1999). Teaching and outreach have been integrated in university service-learning courses (Fitzgerald 2010) and in various paths forged by linguists to reach middle and high school students. This work has introduced students to scientific perspectives on language diversity and to a discipline that is often undiscovered before undergraduate or even graduate education (Bucholtz et al. 2014; Clark & Trousdale 2012; Culicover & Hume 2013; Denham & Lobeck 2014; Estival et al. 2014; Honda & O’Neil 1993; Lidz & Kronrod 2014; Reaser & Adger 2007; Stewart & Kuhlemann Cárdenes, 2010; Wolfram, Reaser & Vaughn 2008). Sociolinguists have long recognized the need to give back to the communities in which they collect data (Labov, 1982; Rickford 1997, 2000; Wolfram 1993; Wolfram et al., 2008), and efforts in that subfield have often focused on fostering public understanding of and respect for historically stigmatized language varieties. In some subfields, however, linguistics outreach to the general public is not yet well developed (Purnell et al. 2013).

We have found that an exciting and effective way to engage with the public is through informal science education inside a science museum. Whereas language is often contrasted with science in formal education settings (e.g., the ‘language arts’ versus science and math), informal science institutions are spaces in which people are primed to learn about the scientific study of language. As linguists are well aware, a great deal of our understanding of how language works

rests on investigations using traditional scientific methods. Given that non-specialists often make decisions about how to distribute funding across disciplines, public understanding of linguistics as a science is increasingly important. The Language Sciences Research Lab opened in 2012 within the Center of Science and Industry (COSI) in Columbus, Ohio, with the mission to conduct cutting-edge research to excite the public about science while expanding our knowledge about language. We have developed a repertoire of practices grounded in informal science learning research in which research, teaching, and outreach are integrated to accomplish these goals.

2. *The Language Sciences Research Lab: A University-Museum Partnership*

The Language Sciences Research Lab, also known as the ‘Language Pod’, is housed within COSI’s Labs in Life, a research-in-real-time exhibit that consists of three glass-enclosed rooms (affectionately known as ‘pods’) inside which research is conducted within the public’s view (see Figure 1). The entire space was created and is maintained through a partnership between COSI and the Ohio State University (OSU), and both organizations provide funding and other material support for the space. Funding for the Language Pod’s internal operations (equipment, supplies, and part time staff) comes from a variety of sources (see Acknowledgements), including the National Science Foundation. Any Ohio State faculty member who conducts language research (broadly construed) is eligible to use Language Pod resources for data collection in exchange for their intellectual and service contributions to the Pod’s mission, such as developing an outreach activity or an educational opportunity for students. This ‘sweat equity’ is the only contribution required, ensuring that faculty members from a wide range of fields related to language sciences have the opportunity to conduct research and engage in associated teaching and outreach activities in the Pod.

The university-museum partnership that makes the Language Pod possible is not unique. The Labs in Life exhibit reflects a recent trend of museums making space for research that does not necessarily have a close topical connection with other museum exhibits or programs. The



Fig. 1. The Language Sciences Research Lab, or Language Pod, in the Center of Science and Industry.

Living Laboratory project (<http://www.livinglab.org>) developed at the Museum of Science in Boston is the most developed and widely known model exemplifying this trend in the United States. For additional information about building relationships with museums for research and outreach, we recommend recent articles by Callanan (2012) and Sacco et al. (2014), as well as Alpert's (2013) guide for university-based researchers and science museum professionals. Callanan (2012) describes different ways to do research in museums, different kinds of researcher-museum relationships, and what museums may get out of allowing research to be conducted in their spaces. She also provides advice for scholars who want to take their research to a museum setting. Sacco et al. (2014) provide an overview of informal science education, followed by several specific examples of scientists who are engaged in the practice, and suggestions for how to get involved. Alpert (2013) provides information and guidance on how university researchers can identify potential science museum partners, build and maintain healthy and productive relationships with them, and collaborate with them on grant proposals.

3. *Linguistics and Informal Science*

The location of the Language Pod in a science museum has inspired us to draw on informal science learning research in the development of our teaching and outreach activities. Language is a phenomenon with which everyone has direct and extensive experience, making linguistics well suited to a core goal of informal science education: to help people discover how scientific knowledge relates to everyday experiences and familiar phenomena. We have found that many linguistic research topics, such as language acquisition, sociolinguistic perception, and spoken and written sentence processing, can be leveraged to stimulate more general interest in scientific research among science museum visitors. Visitors to the Language Pod often share with us their questions and concerns about their children's language development, their experience in detecting other people's accents, and their interest in how we communicate with each other using particular speech styles. Thus, the Language Pod research and outreach activities are opportunities to communicate with visitors about how linguistics research contributes to our understanding of and ability to address issues that matter to them.

More formally, we have used the National Research Council (Bell et al. 2009) framework for understanding, promoting, and assessing science learning in settings such as COSI. The framework identifies six interrelated aspects of informal science learning, which are used to develop and design learning goals and outcomes for participants in informal science environments. Our summary of these strands is provided in (1).

(1)

- (1) Sparking interest and excitement.
- (2) Understanding scientific content and knowledge.
- (3) Engaging in scientific reasoning.
- (4) Reflecting on science.
- (5) Using the tools and the language of science.
- (6) Identifying with the scientific enterprise.

The Language Pod's direct engagement of visitors with research studies helps us touch on several of these strands of informal science learning at once: being a research participant sparks interest (1), shows visitors how we reason scientifically (3) and the tools we use to investigate science (5), expands on content knowledge through the debriefing process (2), and often leads visitors to identify with the scientific enterprise (6) and reflect on how we use it to investigate language (4). Our educational activities conducted on the museum floor tend to focus on a

specific language phenomenon (see Section 6) and typically serve to get visitors excited about language (1), develop their content knowledge (2), and to a limited extent, help them engage in scientific reasoning (3).

In addition, language as an object of study lends itself well to four of the primary strategies used to promote learning in informal science institutions such as COSI: juxtaposition, multiple modes, interactivity, and social interaction (Bell et al. 2009; Fenichel & Schweingruber 2010). Everyone has beliefs about how language works, and these beliefs provide linguists with ample opportunities to juxtapose museum visitors' understanding of linguistic phenomena with the formal disciplinary ideas that explain them. Further, language is naturally multimodal, involving both auditory and visual information, which provides different ways for museum visitors to engage with linguistic concepts, practices, and phenomena. Finally, interaction between people is the natural environment of language, which means that linguists have no trouble providing visitors with diverse opportunities to interact with each other at the same time as they interact with linguistic phenomena and the instruments linguists use to study them.

Finally, linguists are well placed to support science museums in helping the public to better understand diversity, given the long traditions in the field of explicitly studying linguistic diversity and conducting outreach in this domain (Labov 1982; Rickford 2000; Wolfram 1993; Wolfram et al. 2008). Science museums are concerned with diversity, primarily in terms of broadening participation in informal science education and in science, technology, engineering, and mathematics (STEM) (Bell et al. 2009; Fenichel & Schweingruber 2010). Linguistics outreach in science museums can help visitors rethink issues of language diversity, using scientific concepts, principles, and practices to create distance from their existing beliefs and attitudes and thereby help them see linguistic variation in a new light. Linguistics outreach can play a similar role for science museum staff, exhibit designers, and program developers. In addition, research conducted by linguists in the museum setting can help science museums better understand and better serve their diverse audiences. For example, one of the authors (Moore) has recently begun research on the informal science learning experiences of dual language learners, in collaboration with partners at COSI and eight other museums. This project is supported by an NSF Advancing Informal STEM Learning Pathways grant.

4. The Integration of Research, Teaching, and Outreach

4.1. INTEGRATING RESEARCH AND OUTREACH

At universities, it is common practice to have subject pools that encourage undergraduate students to actively participate in research. First-hand experience with scientific research through participation in an experiment offers an in-depth view of the research process and the concrete conditions under which linguistic data are created. The Language Pod applies this practice in the science museum setting and thereby facilitates our research and expands our engagement with the general public. Researchers in the lab offer visitors opportunities to serve as participants in ongoing research, to observe research in real time, and to discuss research with the scientists who are conducting the work.

To encourage visitor participation, experiments conducted in the Language Pod are designed to be short (usually under 20 minutes long) and interesting to the general public. Debriefing explanations are constructed to be informative for a diverse population of museum visitors that includes adults with advanced degrees, adults with no college education, and young children. These debriefings involve a verbal description of the research goals and predictions, an invitation to ask questions or engage with the researcher more deeply about the research, and a printed brochure with more information about the topic of the research, including the researcher's

contact information and URLs to online resources with additional relevant information. Researchers in the Language Pod therefore gain valuable experience discussing their work with diverse, non-academic audiences.

In addition to active participation in research through experiments, COSI visitors can observe ongoing lab activities and thereby enhance their understanding of the process of scientific research. The appeal of 'watching research in real time' is regarded by COSI as one of our central contributions to their informal science environment. The research conducted in the lab gives us the opportunity to share with both research participants and casual viewers a visceral sense of the day-to-day workings of a research lab, as well as an idea of what questions are currently capturing researchers' attention in the field of language science.

4.2. INTEGRATING TEACHING AND OUTREACH

The Language Pod has also developed a university-level course aimed at both undergraduate and graduate students called 'Training in Informal Science Outreach'. The course involves classroom instruction and hands-on time at COSI, where the students engage in outreach activities with museum visitors. In addition, over the summer, this course is combined with a research internship for students admitted to our NSF-funded summer program for undergraduates (NSF REU Site: The Science of Language and the Language of Science).

One of the primary aims of the course is to develop future scientists and other language science professionals who can effectively communicate scientific understanding of language to diverse audiences by drawing on principles and practices of informal science education. As part of the classroom instruction, students learn about core concepts in informal science learning, including the six strands [shown in (1) above] and key strategies in the informal science setting (e.g., juxtaposition, multiple modes, interactivity, and social interaction). Students draw on their learning about informal science education as they develop, practice, and discuss ways to promote better understanding of language and linguistics, generate interest in and excitement about language and science, and convey to a wider public that language is a domain that can be – and is – investigated scientifically.

Students' outreach activities center on a set of demonstrations we have developed that are built around simple hands-on activities, each of which illustrates a basic concept in language science. Demonstrators stand on the museum floor and engage passing visitors with a simple opening line, such as 'Want to play a game?'. As the interaction between the demonstrator and the museum visitor(s) unfolds, the demonstrator introduces key points as appropriate. The demonstrator adjusts the activity to the age, comprehension, and interest level of a given visitor or group of visitors and presents the concepts in a pyramid structure, starting with the core take-home message and broadening to more complex knowledge with those visitors who are willing and able to pursue it.

Our demonstrations cover a range of subfields in linguistics, including psycholinguistics (e.g., the Stroop test), language acquisition (e.g., word learning strategies), dialect variation (e.g., a dialect quiz), sign languages (e.g., counting to 10 in American Sign Language and British Sign Language), audiology (e.g., the dangers of too-loud earbuds), sentence processing (e.g., semantic illusions), and phonetics (e.g., iPad apps about the visual representation of sound). Written guidelines are maintained for each demonstration and are used for training students. The guidelines include background readings, instructions for completing the activity with visitors, and the pyramid of concepts.¹ The capstone writing project for the course is to create guidelines for a new demonstration. Although this assignment is very challenging, every section of the class has produced at least one student-created demonstration currently in use.

The Language Pod has also coordinated with faculty teaching other language courses on campus to have their students create educational outreach slides that can be displayed to the COSI public. For example, one set of slides currently on display is a guessing game about historical word derivations for animal names (e.g., *puccha* > fox) created by students in a History of English class. In this way, we aim to broaden the range of linguists participating in outreach as well as the range of topics we cover at the museum.

Museum visitors' interest in interacting with faculty further inspired us to begin a program of 'Language Fairs' that facilitate direct contact between faculty working in the lab and COSI visitors. Language Fairs are held periodically throughout the year on the museum floor in front of the lab. Three to five researchers prepare demonstrations and share them with COSI visitors during a 2–3-hour event. These demonstrations are typically linked to the researchers' own work, but the fairs also serve as an opportunity for senior members of the lab to pilot new outreach activities for future use by the students.

4.3. INTEGRATING RESEARCH AND TEACHING

Since the Language Pod opened in 2012, 36 different research projects have been conducted, and over 10,000 COSI visitors have contributed to these projects as participants. The studies are conducted by faculty, post-doctoral researchers, and graduate students from eight OSU departments (Computer Science and Engineering, English, Linguistics, Music, Psychology, Spanish and Portuguese, Speech and Hearing Sciences, and Teaching and Learning). Over 100 undergraduate students have also been involved in the lab as research assistants, participant recruiters, and/or explainers of ongoing research. Thus, as in many campus labs, the research process itself involves training graduate and undergraduate students in language sciences research.

The students in the 'Training in Informal Science Outreach' course are also integrated with the research component of the lab: they complete human subjects research ethics training and are listed as key personnel on lab research projects. They also receive training in the recruitment of museum visitors to be participants in ongoing research. Our recruitment techniques are probably the one aspect of our research that is dramatically different from those used in other settings. Student recruiters go out on the museum floor and simply ask museum visitors if they 'want to be in a science experiment'. If visitors are interested, students provide information about the experiment's topic and length. If visitors continue to be interested, the recruiters escort them into the lab where a research assistant obtains informed consent and conducts the experiment. The lab provides no incentives to visitors to participate beyond the opportunity to be in a research study. Nevertheless, our recruiters typically report a 75–80% hit rate of visitors agreeing to participate.

To facilitate their recruitment efforts and their potential future relationship with the lab, students in the training course learn about the different experiments being conducted in the lab throughout the semester, interact with student and faculty researchers, and witness what language science research in action looks like. Several students have gone on to become research assistants in the lab.

5. Case Studies

In Section 4, we provided an overarching description of the Language Pod, with an emphasis on the infrastructure that supports our research, teaching, and outreach efforts. In this section, we present two case studies to illustrate more concretely the integration of research, teaching, and outreach in the lab. Each case study reflects a domain of research that is central to the lab – the first defined by its topic (dialect) and the second by its method (eye-tracking). In both

domains, multiple researchers are engaged in the research area, and a number of different research studies are being conducted.

5.1. CASE STUDY 1: DIALECT

Language variation, particularly regional US dialects, is a topic of widespread interest as well as widespread misinformation and also happens to be a research focus for several of our faculty. Research projects on variation span multiple topics and departments. One line of research (stemming from Campbell-Kibler, 2012) investigates the construction of accentedness within the state of Ohio, contrasting the treatment of established and widely circulated registers (Agha 2007) like Southern or country speech with the less well-known difference between the Inland North and Midland varieties (Labov et al. 2006). Participants are asked to listen to a set of talkers and rate them for how accented they sound.

The methods for this project are quite similar to those employed in other perception research, with some modifications made for the museum environment. One distinctive aspect of this project is that the structure of the task allows groups of individuals to participate together, so that all interested members of a visitor group are taken to a conference room within the lab space to participate at once. Short stimuli from 15 talkers are played one by one over a portable speaker system, and participants mark their accent assessment on a visual analog scale on a response sheet. After all talkers are presented, participants turn over their response sheets to provide their age, sex, regional history, and racial/ethnic identification. They also rate their perceptions of accentedness for different locations within Ohio (e.g., central Ohio, northwest Ohio, etc.). Participants are then asked a series of questions about their experience with the task and their perceptions of the talkers. Finally, the project is explained in depth as the visitors are debriefed.

One of the great benefits to conducting research in the Language Pod is the abundance of children, including both pre-school-aged children as well as school-aged children, who are in the company of their parents or legal guardians. Several of our studies capitalize on this availability, examining the development of different aspects of dialect awareness, including their ability to classify talkers by their dialect (Jones et al. 2015; Yan et al. 2014), their implicit attitudes towards talkers of different dialects (McCullough et al. 2015), and their ability to understand different accents in noisy environments (Hill et al. 2015; Mabie et al. 2015). All of these studies involve working with individual child participants on a desktop computer using methods that can be – and have been – used in many other environments, such as forced-choice selection, ratings, and lexical identification. When the lab was originally equipped, one potential concern was that children would find the glass-enclosed space too distracting to be able to complete research studies. With that in mind, the desktop stations are set up along the wall so that participants face away from the museum, thus minimizing visual distractions. In addition, when participants listen to speech sounds, audio is presented over high quality circumaural headphones. Distraction has not proved to be an issue, however, and participants – including children – typically remain engaged with the task throughout each experiment.

Dialect research is integrated into our outreach in several ways. The debriefing discussions following dialect-related experiments tend to be more extensive than they are for other studies, as visitors often have many questions and comments about the topic. Research assistants are trained to facilitate discussions that combat misconceptions and biases and encourage scientific curiosity about linguistic differences. On the museum floor, one of our popular demonstrations walks visitors through the New York Times' dialect survey (Vaux & Golder, 2002) online interface, leading to discussions of the overall idea of regional variation and some of its phonetic and lexical features. More generally, several demonstrations focusing on speech sounds (such as

one showing what sound looks like on a spectrogram) regularly lead to discussions of variation, especially regional variation.

Our educational efforts, both in the undergraduate training course and in the NSF-funded summer internship program, likewise foreground language variation. Introducing students to the natural variation of human language is a key course goal, as is developing their skill in correcting common misconceptions about language. Students finish the course understanding the inherently variable nature of language, with the tools to spark interest and curiosity about it in others, including museum visitors. Recent evaluations of students from two semesters of our training course showed that students finished the course with a more accurate understanding of seven common myths related to language variation, raising their average score from 5.69 (out of 7) at the start of the course to 6.13 at the end.

5.2. CASE STUDY 2: EYE-TRACKING

The lab is equipped with two eye-trackers: one is a stationary screen-based system (Tobii T60), and the other is a mobile head-mounted system (ASL Mobile eye XG). Several researchers in the lab conduct experiments with these systems using museum visitors as participants. For example, one study using the head-mounted system investigates adults' ability to use prosody (specifically, contrastive stress) while listening to spoken instructions (Ito et al. 2015). Participants hear pre-recorded adjective-noun pairs (e.g., 'blue bell') and choose the named ornament from an array organized by ornament type to hang on a small Christmas tree. The task is action-based and naturalistic. The dependent variable is the participants' eye-gaze to the different parts of the display as monitored by the tracker. For example, participants hear instructions to hang a 'green bell' and then a 'BLUE bell': this felicitous use of a prominent pitch accent on the adjective 'blue' signals a contrast. Looks to the bell area of the ornament array begin shortly after the onset of the noun and are speeded relative to when the adjective does not carry a prominent accent. In a misleading condition, participants hear instructions to hang a 'green bell' and then a 'BLUE drum': in this case, participants often make early looks to the (incorrect) bell section of the array first, on the basis of the contrastive prosodic marking on the adjective. These 'garden-path' looks delay their looks to the mentioned ornament area compared to when the adjective does not carry a prominent accent to mark contrast.

A series of previous studies using the Christmas tree decoration task (e.g., Ito & Speer 2008; 2011) demonstrated that a prominent pitch accent evokes a contrastive interpretation, with immediate effects on the participants' eye-gaze. However, these past studies always used prescribed intonation contours produced by a trained phonetician. The ongoing study compares such 'laboratory speech' to spontaneous speech produced by a naïve speaker in a similar decoration task (Ito & Speer 2006). Despite measurable differences in the implementation of pitch accents between the trained and spontaneous speakers (Turnbull et al. 2014), results with the spontaneous speech replicate past findings, demonstrating that the effect of a prominent accent is not an artifact of laboratory speech.

The research results obtained in the museum lab are consistent with those obtained in more traditional university campus laboratories. This fact is not surprising as the methods, including the technology, the materials, and the experimental design, are all the same. The primary accommodation to the museum setting is that participants typically wear noise-canceling headphones to ensure that they can clearly hear the speech stimuli because the ambient noise levels of the museum lab are somewhat louder than those of a typical campus-based lab. Moreover, the special participant pool of the museum has allowed for established results to be generalized to a new population: adults older than average college undergraduates also show these effects. Additional eye-tracking studies in the lab have also taken advantage of the presence of children among the museum visitors to examine the development of online processing abilities with age.

The eye-tracking studies integrate nicely with our outreach efforts: if the participant wearing the tracker agrees, the tracker's video data recordings can be displayed on a large screen to COSI visitors just outside the lab. The screen can show the view of the ongoing experiment either from the participant's perspective, with cross-hairs tracking their fixations in the visual field, or it can show the view from the experimenter's perspective, including a close-up of the moving eye with overlaid geometric forms used to maintain calibration. Even without taking part in the study itself, visitors can learn about eye movements by watching the moving patterns of the participant's gaze. Somewhat more distally, some of our interactive floor demonstrations highlight research results in online sentence processing. Thus, the lab offers several ways for visitors to learn about the online processing of language: through short interactive activities, by watching an eye-tracking study as it happens, or by participating in one themselves.

The eye-tracking research is also well-integrated with our educational efforts. Eye-tracking researchers in the lab conduct hands-on sessions in the lab as part of the 'Eye-tracking for Studying Language Processing' course. This course is open to undergraduate students, graduate students, and faculty who are interested in applying eye-tracking techniques to their language-related research projects. Course participants learn to design coordinated visual and auditory stimuli applicable to studies using either the screen-based or the head-mounted eye-tracking systems in the Language Pod. This course also has an outreach dimension: while it is training researchers in eye-tracking technology, it is also showing museum visitors what such training looks like.

6. Conclusions

We appreciate that our fully integrated and embedded presence within a museum may not be easy to replicate in its entirety elsewhere. However, museums are increasingly interested in partnering with university researchers to bring a real science experience to the public, whether that involves actually conducting research with visitors, training students as informal science educators, being observed in the process of research design and experiment development, or simply having a research professional show off their science. Linguistics is a particularly good science to bring to science museums because language provides an accessible entry point to science for the general public, and many language science demonstrations are low-cost and easy to conduct anywhere and with a diverse audience. The research carried out in a science museum setting is itself an effective form of linguistics outreach, especially when combined with activities such as demonstrations, language fairs, and/or debriefings designed with informal science education goals, principles, and strategies in mind. Our research benefits from drawing on a broad cross-section of the population, and outreach efforts can further benefit linguistics by increasing the discipline's visibility and the public perception of its value. Through experiences as language science educators, students deepen their understanding of – and in many cases, their identification with – the language sciences. At the same time, they develop skills in communicating complex concepts to diverse audiences and in sparking interest in the scientific study of language.

There are many ways that we as linguists can share our knowledge and our enthusiasm about language. In our experience, the science museum setting affords the opportunity and inspiration to integrate research, teaching, and outreach in ways that are productive and exciting for museum visitors, our students, ourselves, and our discipline.

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Short Biographies

Laura Wagner is the Director of the Language Sciences Research Lab and an Associate Professor in the OSU Psychology department. She has a PhD in Linguistics from the University of Pennsylvania. Her research focuses on language acquisition, especially children's acquisition of meaning across a variety of domains.

Shari R. Speer is a Research Director of the Language Sciences Research Lab and Professor, Director of the Psycholinguistics Laboratories, and Chair of the OSU Department of Linguistics. She has a PhD in Human Experimental Psychology from the University of Texas at Austin. Her research focuses on the role of intonation and prosody in language production and comprehension.

Leslie C. Moore is the Education Director of the Language Sciences Research Lab and an Associate Professor in the OSU Teaching and Learning Department and is also affiliated with Utrecht University. She has a PhD in Applied Linguistics from the University of California at Los Angeles. Her research focuses on the social and cultural patterning of learning and language development and use in multilingual communities.

Elizabeth A. McCullough is a post-doctoral researcher in the Language Sciences Research Lab. She has a PhD in Linguistics from the Ohio State University. Her research focuses on the perception of foreign accented speech.

Kiwako Ito is the Eye-tracking Coordinator for the Language Sciences Research Lab and a Senior Researcher in the OSU Department of Linguistics. She has a PhD in Linguistics from the University of Illinois at Urbana-Champaign. Her research focuses on the role of prosody in speech comprehension among adults and children speaking English and Japanese, as well as among individuals with developmental disabilities.

Cynthia G. Clopper is a Research Director for the Language Sciences Research Lab and an Associate Professor in the OSU Department of Linguistics. She has a PhD in Linguistics and Cognitive Science from Indiana University. Her research focuses on the role of linguistic and social variation in spoken language processing.

Kathryn Campbell-Kibler is the Outreach Director for the Language Sciences Research Lab and an Associate Professor in the OSU Department of Linguistics. She has a PhD in Linguistics from Stanford University. Her research focuses on language variation, including the role of the listener in variation and the role of language in the formation and performance of identity.

Notes

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¹ Guidelines for some of our more popular demonstrations may be found at <http://bln.osu.edu/Outreach.php>.

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