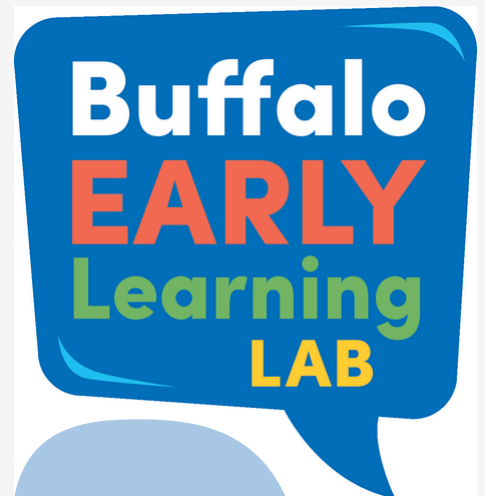
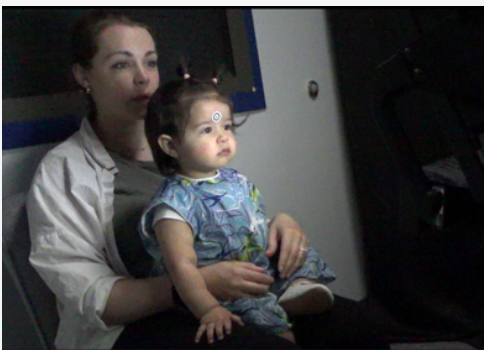


BUFFALO EARLY LEARNING LAB

Annual Newsletter | February 2026

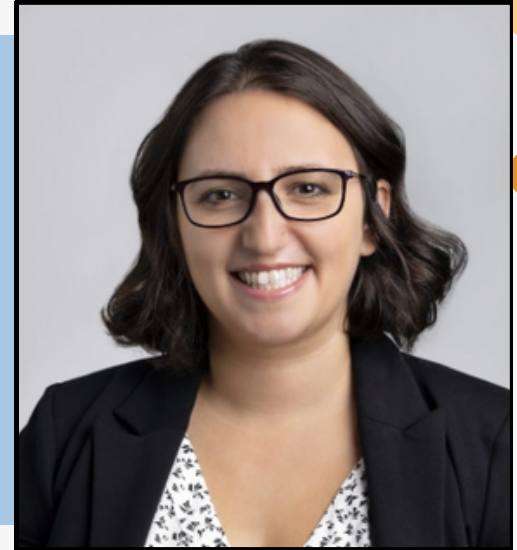
In 2025, we continued studies that we began in 2024 and also introduced a few new ones! None of our work would be possible without your help and we are so thankful for all of our wonderful families who have made this research possible!



WHAT'S NEW WITH OUR LAB?

Our lab director Dr. Federica Bulgarelli was recently named an Association for Psychological Science Rising Star. This designation recognizes researchers whose innovative work has advanced the field and signals great potential for their continued contributions.

Fun fact: She makes amazing focaccia!



We welcomed our new lab manager, Jiya Gupta. She is from Mumbai, India and graduated from UC San Diego, with a double major in Developmental Psychology and Cognitive Behavioral Neuroscience.

Fun fact: Her favorite meal is a bowl of Cheez its!

We welcomed a new graduate student, Giselle Yao. She is from Zunyi, China and earned her M.S. in Developmental Psychology from Tulane University and her B.S. in Psychology from the University of Macau.

Fun fact: She loves board games!



ONGOING STUDIES

The majority of research on language development has asked what infants hear from their parents. However, lots of infants have older siblings or cousins, or attend daycare, and therefore also hear language from other children!

In a set of ongoing studies, we want to learn how speech from children influences language development.

What do infants think about speech from older children?

This two-part study investigates how 9-15 month-olds listen to and understand speech from older kids and adults. For this study, we specifically recruit infants who do have older siblings, and thus experience this speech from other children, and ones who do not have older siblings. We started collecting data for this study in May 2023 and it's still going strong!



Pamela and Chloe

First, we play babies excerpts from children's books (like *The Very Hungry Caterpillar*) read by adults and 5-year-olds. We want to know which type of speech they spend more time listening to! **(Do they prefer one over the other?)**

Our results show that infants want to listen to both types of speech the same amount overall. This tells us that infants with older siblings are not **ignoring** what their older sibling is saying, but they are actually attending to it just as much as speech from their parents.

We have submitted this paper for publication, and it is currently being reviewed by experts. We can't wait to share it with you once it is published!

Then, we show them two pictures on a screen and they hear an adult or a child tell them to look at one of them. We measure how fast infants look at the right object - **are they faster to look at the correct image when directed by an adult or a child?**



Jess and Sequoia

Our results for this part show that speech from children is a little harder to understand, but only if you don't have an older sibling! If you do have an older sibling, then you are just as good at understanding speech from adults and from other children. That means that infants adapt to their experience to process speech that is important for them!

How do toddlers process speech from adults and older kids in the presence of background noise?



Zachary and Ella

In this study led by PhD student Marzie, we bring in kids who are between 30-36 months old for an eyetracking task.

In this study, toddlers also see two pictures and hear one of them labeled by either a child or an adult. But, unlike the infant study, half of the participants hear the sentences in silence, and half hear them in background noise taken from real-world recordings of children's homes (e.g. they hear jingles and music). We want to know whether toddlers find processing speech in noise harder, or if they are so used to it that it does not make listening any more difficult! Results so far suggest that toddlers recognized the correct picture just as well in noise as in silence, and they were slightly more accurate with adult voices than child voices.

PLAY SESSIONS

In Summer 2024, we started our play session studies on South Campus! Play session studies are a way for us to measure aspects of real world language experience, in a low-stakes, fun setting!

We record two types of play sessions:

- (1) Families that have two children: one infant and one older child (3-5 yrs old)
- (2) Families that have one child: one 9-15 month old infant

Our questions:

- How much language do infants hear? From their parents (and from siblings if they have them)?
- How do older siblings talk to and around younger siblings?
- Who/what is each person looking at? Are parents (or siblings) labeling objects the infants are looking at?

Some highlights from our sibling play sessions





Katelynn, Rosalie, and Violet Fisher



Deborah, Eloise, and Bennett

Some highlights from our infant play sessions



Eileen and Callen



Rebekah and Bowen



Jessica and George



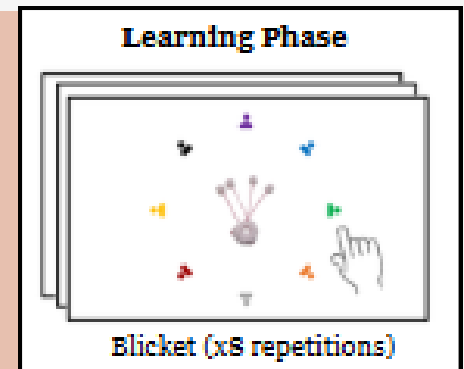
Gabrielle and Adelaide

STUDIES WE WRAPPED UP

How do preschoolers learn new words?

Starting Summer 2024 and wrapping up in Fall 2025, we conducted a study with preschoolers asking who they wanted to learn words from. If you participated in this study, you came to our lab and your preschoolers played a tablet game.

During that game, they saw some new objects, and had the option of choosing which out of 8 possible speakers they wanted to hear what the object was called from. They could choose all 8, or just 1 speaker 8 times, or something in between!



Another group of preschoolers then came into the lab and were given the choices of a different participant. We tested both groups' word learning to see whether 1) hearing multiple people say the words and/or 2) whether making the choices of who to hear the words from leads to better word learning.



Clarke | Image courtesy of Samantha

We find that preschoolers who got to make choices learned more words than ones who did not make the choices, but that choosing more or less speakers to hear the words from did not really impact learning for either group.

We actually conducted the same study with adults, and for adult learners hearing more talkers leads to better learning, but making their own choices does not! This suggests that preschoolers and adults make use of different types of information during word learning.

Learning Words from Multiple People

We have also been conducting studies on how infants learn words when they hear multiple people say those words. Previous research finds that hearing similar sounding words from multiple talkers helps 14-month-olds learn them, which they are unable to do without variability. We tested whether this kind of talker variability would benefit learning of easier words, for younger infants.

Learning Phase



Neem



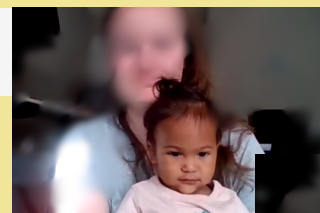
Lof



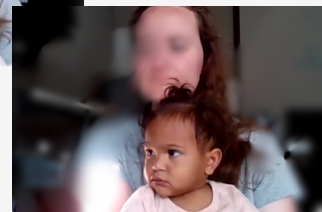
Lof

11-12 month olds participated in a Zoom study where they were shown a novel object (e.g. a strawberry corer) and heard it paired with a novel word (e.g. neem) until they got bored. We wait for them to get bored because we know infants have a short attention span, and they will only look at something that is interesting to them.

After they get bored, we make changes, like pairing the strawberry corer with a new word (e.g. lof). If they look longer at this change, that tells us they learned what the strawberry corer was called a neem, and are surprised when we switch the word.



Participant looking attentively



Participant gets bored and looks away

We found that at this age, infants are not surprised when we switch the word, regardless of if they learned it from one person (and thus no variability) or from multiple people (and thus talker variability). So at 11-12 months, talker variability does not help with word learning. Future research will test under what conditions exactly talker variability is and is not helpful.

NEW STUDIES TO PARTICIPATE IN!

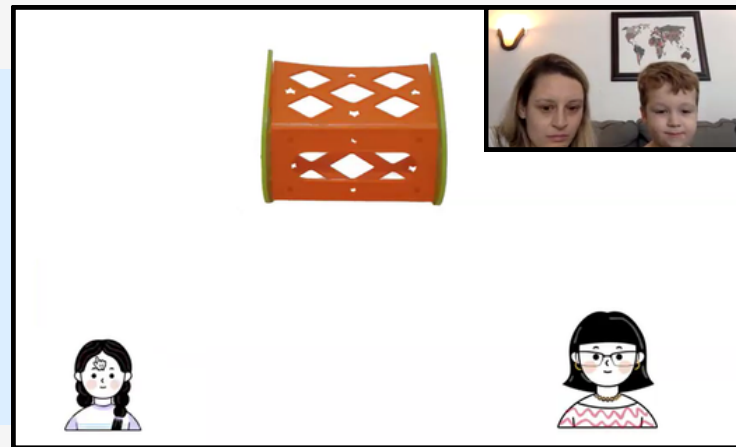
Who Do you Want to Learn New Words from?



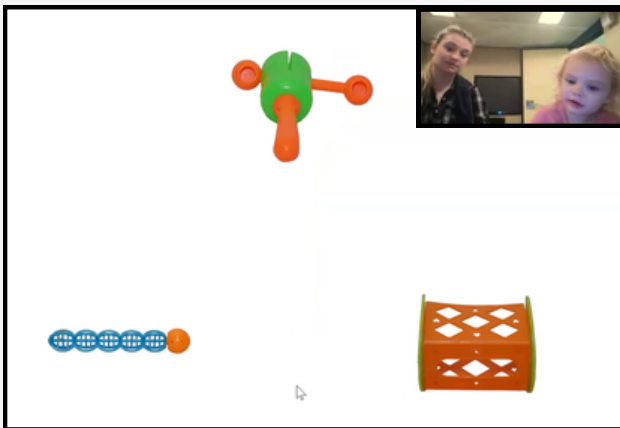
This study is a computer game for 3- to 5-year-olds! We are interested in how children decide who to learn from, and whether that choice depends on what they are learning about.

During the game, the child is introduced to two friendly characters, a child and an adult.

They get to choose who they want to learn about some toys and tools from.



Carly and Judah



Then, they play a short matching game to see if they learned the words, and whether that depends on if they learned them from an adult or a child, and what the object is (a toy or a tool).

This study helps us understand how children think about who knows what, and researchers can learn more about how children reason about expertise and how this affects word learning.

Who speaks Spanish and English to your child?

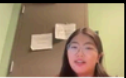


This study is meant for Spanish and English bilingual families and their 12- to 18-month-olds!

We are interested in how bilingual children's language exposure changes based on the people around them and their daily activities.

The study starts off with a Zoom session with the parent where we ask them about the languages their child is exposed to, and who they heard them from.

Languages your child hears



1. What languages does your child hear on a regular basis?
2. How many days per week is the child exposed to these languages?
3. How many hours per day is the child exposed to these languages?

Hi a! Thank you for participating in this Buffalo Early Learning Lab study about a's language experiences! Please follow the link to take this survey: Survey 1 (Day 1)

You may open the survey in your web browser by clicking the link below:

<https://redcap.buffalo.edu/redcap/surveys/?s=5EMAPxpFnWbr7W4u>

During the Zoom session the parent chooses two days for us to send them check-in messages.

On each of these days, the parent receives text messages (every couple of hours) asking them what languages their child heard, and who spoke those languages to them.

This study helps us better understand how young children learn two languages.

2025 HIGHLIGHTS

Publications

Bulgarelli, F. (2026). Beyond adult speech: why research on language development should consider speech from children. *Child Development Perspectives*.

[Click here to view and read](#)

Samimifar, M., & Bulgarelli, F. (2026). Decoding child speech in silence and noise: The type of background noise shapes adults' processing. *Attention, Perception, & Psychophysics*, 88(1), 30.

[Click here to view and read](#)

Media

How background noise affects child speech comprehension. (2026, January 18). *SCIENMAG, Science Magazine*. <https://scienmag.com/how-background-noise-affects-child-speech-comprehension/>

LOOKING AHEAD

We are excited to attend the **Cognitive Development Society's** 2026 conference in April! Dr. Bulgarelli, Jiya, Giselle, and our honors undergraduate student, Gabi will be traveling to Montreal to present some of our latest findings!



Cognitive Development Society

We're always excited for new members to join the lab!
And of course, lots of kiddos!

