2016 NEWSLETTER

Dear everyone,

Thank you from all of us at the Laboratory for Developmental Language Studies for being a part of our language studies. Our favorite part of the school year is when we visit preschools and learn from all of the “mini linguists!”

In our studies, we are interested in learning how children assign meaning to words and sentences. The results of our studies tell us how children acquire language, and how this knowledge develops over time until your bright little children becomes adults.

A key part of our work is also providing Rutgers students with the opportunity to be engaged in hands-on research and witness the language acquisition and development process firsthand. Being able to learn from children and seeing what they do in our studies has provided our students with a unique hands-on opportunity that enhances their scientific training.

Throughout the year, we present our research at conferences, workshops, and universities, and publish it peer-reviewed journals. These presentations give us an opportunity to share our findings, and educate a wider community about child language and linguistics. In the following pages, we share with you some summaries of just a few of the studies we have done in our lab in the last year. We hope you enjoy learning about them!

Again, thank you for being an important part of our research. We couldn’t have done it without you!

Many thanks!

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How speakers use language
One of the most challenging aspects of language acquisition is mastering the ability to go above exactly what is said, and identify a speaker’s intended meaning. Think about how many times you ask your child, “Have you gone potty?” Most of the time, you are probably not just asking for a “yes/no” answer. Most likely, you want them to go potty if they haven’t already, so this question is not only an invitation for an answer, but also a call to action! We know from a range of studies that this ‘pragmatic’ ability becomes increasingly adult-like over time, but what we still do not know is how rapidly children make this inference as speech unfolds. In our experiments, we presented children with two videos, shown side by side, accompanied by sentences describing these videos, recorded by a female speaker. We then examined how quickly children used the linguistic information to look at and point to one of the videos.

In these videos, animals were doing simple activities, like tickling or bending. What differed was how many animals there were, and how they interacted, as shown here.

<table>
<thead>
<tr>
<th>Look! The Pig is bending!</th>
<th>/ Look! The Pig is bending the duck!</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Image 1]</td>
<td>![Image 2]</td>
</tr>
<tr>
<td>![Image 3]</td>
<td>![Image 4]</td>
</tr>
</tbody>
</table>

When children heard, “The Pig is bending!” presented with the first two videos, they increasingly chose the video on the left side, as adults did. But when they were presented with the first and third videos, they were at chance choosing between the two, also as adults were. Children did this very quickly as the speaker’s sentence unfolded, showing that they did not wait until the speaker was finished to make their decision. Our findings highlight the fact that children have rapidly developing expectations about the language they hear, and that by three to four years of age, they are already showing signs of adult-like pragmatic reasoning.
Relations between objects and people
Imagine a group of children who are given some library books to read. It could be that every child reads every book, that one book in particular is read by every child, that different children read different books, and so on. As speakers, we can choose different ways to express these relations. Some ways of describing these relations are unclear, because they have multiple meanings: for example, to say that *every child read a book* could mean that every child read a different book, or that every child read the same book! But other times, there could appear to be only one interpretation, as in *There was a book that was read by every child*. We conducted a set of studies in which we investigated how adults interpret sentences that are claimed to have only one interpretation, but which we thought could actually give rise to two readings. We presented these sentences along with images that favored the supposedly “bad” reading, to see if adults would accept the sentences. An example appears below.

![Diagram of a triangle connected to more than three circles]

*A triangle is connected to more than three of the circles.*

We found that many participants in our studies accepted the sentence above when presented with this kind of configuration and others like it. This finding might seem very simple, but it has led us to argue that linguists have to reexamine certain theoretical claims about words like *a* and comparative expressions like *more than three*, and their interaction. While this study was not about language acquisition, it tells us what adults know, and what children must learn, about these quantificational phrases.
Making Comparisons
Let’s say that you were shown the following table, and were told that it showed you what these girls (Mary and Jane) ate for breakfast last year and this year.

<table>
<thead>
<tr>
<th></th>
<th>Last year</th>
<th>This year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jane</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now, let’s say that you were given the following sentence:

*She is eating bigger breakfasts than Jane did last year.*

Would you agree or disagree? Our guess is that you will disagree, because you interpret “she” as Mary, and Mary is not eating bigger breakfasts now than Jane did last year! If you agreed, though, it is probably because you interpreted “she” as Jane, and Jane is actually eating bigger breakfasts this year. But why would you think “she” was Mary? This has to do with how you represent the sentence, and what you think the relation is between the “she” in subject position and names elsewhere in the sentence.

We have been investigating how adults interpret comparative constructions with pronouns in them. Interestingly, in some cases, we can “trick” adults into thinking that certain relations between a pronoun and a name are allowed, when the grammar says they should not be, when we cleverly manipulate the way we say the sentence (what we call the “prosody”). These findings are exciting to us, because they are informative about the nature of the information we recruit when we assess the acceptability of a sentence, and whether acceptability is really the same as grammaticality.