

Learning the plural

How do children learn all the little word endings (linguists call them *suffixes*) that languages use? For example, the plural/singular difference between the nouns *spiders* and *spider* is signalled by the ending *-s*, but what looks like the same little ending *-s* does very different work when it is attached to a verb, as in *like* and *likes*. We can see this more clearly if we put the words in a sentence:

They like the spider. He likes the spider.
They like the spiders. He likes the spiders.

The *-s* that appears on *spiders* seems to have a meaning (roughly, it means 'more than one'). But the *-s* that appears on *likes* doesn't really seem to have a meaning: instead, it simply signals that the subject of the sentence is singular. Clearly, this is a complicated task for children to learn, yet most young children learn the plural naturally by the time they are about three.

Language variation

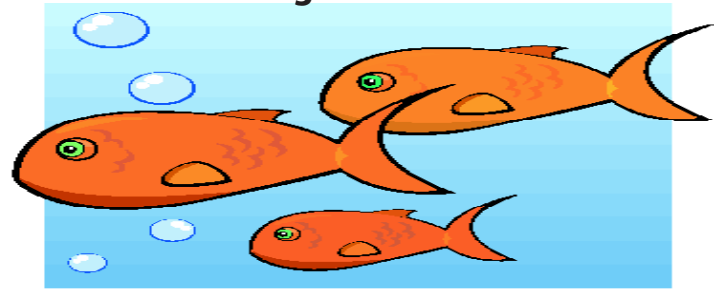
One fact about language that we normally pay no attention to is the fact that we rarely say the same thing the same way twice. In fact, there are many places in which, although we think we are saying something, we actually don't say anything at all! Here's some examples from English. When we say the phrase *best friend*, most of the time we don't actually pronounce the [t] sound at the end of *best*. The same is true when we say the phrase *cold spell*, we don't usually pronounce the [d] sound at the end of *cold*. This doesn't mean that we *never* pronounce the [t] or the [d] in *best* and *cold*, because in the phrase *best actor* or the phrase *cold ears*, most people do pronounce the [t] and [d] sounds. This sort of variation is a completely natural part of language, and is also partially what accounts for different accents or dialects of a language. Of course, if things that are supposed to be there aren't always pronounced, this makes the learning task for the child even more difficult, but amazingly enough, children are incredibly good at it.

Variation of [s] in Spanish

In many varieties of Latin American Spanish, the [s] sound is either pronounced as an [h] sound or it is not pronounced at all. Just like the English examples above, this doesn't happen all the time, and some groups of speakers do it more than other. In Chilean Spanish, many speakers don't pronounce the [s] sound, but in the Spanish spoken in Mexico city, everyone pronounces it. Why should this matter to children learning the language? Well, in some languages (like Mandarin Chinese) there is no plural ending on nouns at all, and the same noun can be used with either a singular or plural meaning. Some words in English actually behave this way too. Think about words like *fish* or *deer*.

Three fish.

Where did the 's' go?



In Chilean Spanish then, we can find situations in which an adult might be talking about more than one object, but not pronouncing the [s], so that the child hearing the adult would think that a plural ending is not required to express the plural meaning. Since children can't be sure what their language rules are, they need to figure this out based on what the adults around them say.

Researchers at the MSU Language Acquisition Lab, in conjunction with researchers at Calvin College, have discovered that the ease with which Spanish speaking children learn the plural morpheme depends on how reliably the adults in their community actually pronounce the *-s*.

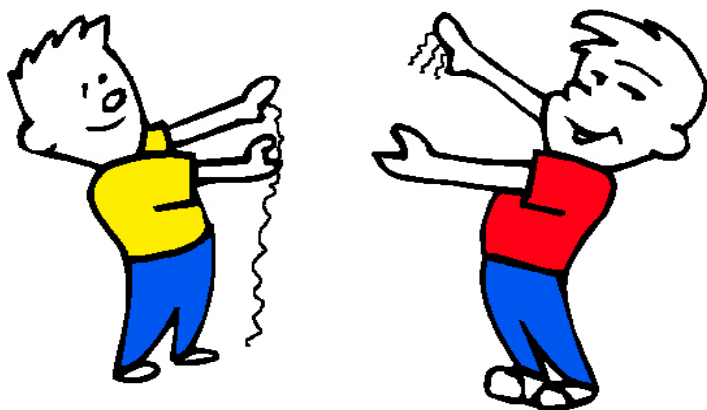
Who has more string?

How can we test whether children know the plural ending? There are lots of different ways. One way is to show

children pictures like the one below, and ask them the following questions:

*Who has more string?
Who has more strings?*

If children know that the plural means more than one, they'll choose the boy on the left for the first sentence, and the boy on the right for the second sentence. If they think that a noun without the plural ending can also mean plural, then they might pick either boy for the first sentence.



What have we learned?

Other researchers have tried this experiment on English-speaking children and found that 3-year-old children often choose the right-hand boy even with the singular sentence. By about the age of 4, all children know the difference perfectly.

Our research in Chile and Mexico found that although Mexican children learn the plural very quickly like the English-speaking children, Chilean children choose the right-hand boy with a singular sentence up until age 4½, because it is often not pronounced in the speech that they hear. Of course, by the time Chilean children are about 6 years old, they also know the distinction perfectly. This delay is not because Mexican Spanish and English-speaking children are smarter than Chilean children; they just get different language exposure.

Why does this matter?

Language variation is a natural part of how language is used. We should also be aware, however, that it can affect how children learn language, and not all children may be learning things at the same rate. Remember that as adults, we are not aware when we pronounce or don't pronounce something: we just do it. These differences may affect the paths that children take to language learning and we all should be aware that not all children may have had the same language experience.

About the Lab

The MSU Acquisition Lab does research in child first language acquisition, with a particular focus on the acquisition of sentence structure and meaning, and the comparison of acquisition pattern in many languages including Spanish, Portuguese, English, Chinese and Japanese.

Ongoing projects

The following are some of the ongoing research projects at the Lab.

- the meaning of articles in English
- the meaning of adjectives in English
- how structure relates to pronunciation in English
- tone rules in Mandarin Chinese
- plurality in Spanish, Portuguese and Japanese
- how Ojibwe can be learned by infants

Participating schools

The research reported here was collected at Centro de Desarrollo Infantil (CENDI), Mexico City and in Punta Arenas, Chile. Our research on English has involved the participation of the Eastminster Child Development Center, MSU Child Development Laboratories, St. Martha School, Okemos, Montessori Center of East Lansing; Okemos Kids Club at Chippewa Middle School. We thank everyone for their support.

Students

The work at the Lab would not be possible without the help of all of our graduate and undergraduate students, too numerous to list here.

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