Child Language Acquisition

Research and case studies

There have been many studies carried out on young children to test various theories about how they acquire language. Many of these are adapted from William O’Grady’s How Children Learn Language (London: Cambridge University Press, 2005).

Words and meanings

Describe in one word what you see in each of the images here. Now try to describe in two words what you see in each of the images.

‘Whole object assumption’

You probably came up with single nouns like lady, woman, dog for the images first of all.

This relates to the ‘whole object assumption’ that children make use of when confronted with new things that they name.

You could have just as easily picked out a smaller detail in each picture such as nose, hat, leg, face, kettle or window, but you probably didn’t. Why not?

‘Whole object assumption’

For children, a new word usually refers to a whole object, not part of it or a quality the object possesses.

When you were asked to use two words it’s likely that you used a noun and a verb (lady smiling or dog running) or a noun and a modifier (lady happy or quick dog). There are other alternatives of course...

Words and meanings

Children tend to use nouns as their main word class early on, and Katherine Nelson explored this in 1973 when she looked at patterns of children’s first 50 words.

There is some logic to this as most concrete nouns fit into the four categories that Spelke noted: cohesion, continuity, solidity, contact. Basically, children like objects that are clearly defined in shape, that don’t disappear, which are solid, and which don’t have a life of their own (unless they’re animate – animals or people).
Children also apply a couple of other strategies: the **type assumption** and the **basic level assumption**.

The **type assumption** prevents children from **underextending** most new words. In other words, if they are told that the new thing they have seen is a dog, they don’t assume that only that particular dog is a dog and every other dog isn’t.

The **basic level assumption** prevents the child from **overextending** meanings too far. So, once a child has recognised what the noun ‘dog’ refers to, they seem to understand that it also refers to things with similar properties (appearance, behaviour, size).

So a dog shouldn’t be a horse, a cat or a ring-tailed lemur… But it doesn’t always work that way, and the mistakes children make seem to shed some light on the processes they’re using to distinguish these differences.

Developing categories and hierarchies is a part of semantic understanding too. Try these questions yourselves:

- A pug is a kind of dog. Does a pug have to be an animal?
- A BMW is a kind of car. Does a BMW have to be a vehicle?
- Michael Jackson is a singer. Does Michael Jackson have to be a kind of human?

You’ve probably been able to answer all these questions as ‘yes’. But faced with questions like this, four-year-olds only score about 60%. Six-year-olds are better at about 90%. Why?

This is down to the ‘mutual exclusivity assumption’: the belief that an object cannot be two things at once.

In order to give a correct answer, the child needs to understand that a dog is a kind of animal, a BMW is a car and part of the wider class of vehicle. As children get older they start to understand the hierarchical nature of naming categories.
Children are often extremely adept at creating new words by applying the rules they hear in use around them. Try this test:

if a person who walks is a walker, and a person who runs is a runner, what would you call a person who:

a) cycles; b) cooks; c) shoots?

Your answers probably differ from those of young children, because you will have heard the correct versions in use more often. Children are likely to have said ‘cyclist’, ‘cooker’ and ‘shooter’.

But, you probably came up with ‘cyclist’, ‘chef/cook’ and ‘gunman/gangsta’.

When we add endings (bound morphemes) to words to change their function we call it ‘derivation’. But we also have other methods of creating new words.

Conversion: when we change the word class of the word but leave it in its original form:

- to butter the bread (verb)
- pass me the butter (noun)
- kiss me (verb)
- I gave her a kiss (noun)

Again, children often overuse these conversions. Examples are: ‘I’ve jammed my bread’, ‘I’m scissoring my picture’, ‘I’m pencilling a picture’.

These errors are a good sign because they reveal to us the processes at work in the child’s mind. Sadly, the English language isn’t quite as logical as the child, and they have to unlearn these errors.

This usually takes place over a period of time, as they hear the correct words being used in context.

So they realise that we use –ist as well as –er for people who do things (cyclist, typist), that you can’t just add a –y ending to every noun to turn it into an adjective (‘It’s very nighty’, ‘This room’s crowdy’) or that hammers don’t ham and doctors don’t doct.

Probably the most well-known experiment into how children use endings to create new words is the ‘wug test’ carried out in the 1950s by Jean Berko.

76% of 4-5 year olds got the correct –s ending compared to 97% of 5-7 year olds.

Other nonsense words, such as heaf, lun, tor and cra gave similar results, showing that when a plural is a simple –s (or –z) sound children can apply the rule.

They found it harder to add an –es ending (such as in words like glasses, houses etc.).
Children tend to overgeneralise this rule and end up creating incorrect forms such as mouses, childs, sheeps and mans.

As we all know, the correct forms of these are irregular: mice, children, sheep and men.

Research by Roger Brown in the 1970s seems to suggest that this pattern is due to children using the correct form to begin with, overgeneralising a rule and then learning the exceptions to the rule.

By the end of roughly six months they will be more accurate than they were at the beginning.

Gary Marcus researched past tense endings in 1992 and came up with broadly similar points, but noted how few errors children made (roughly 10% of past tense forms were incorrect).

He proposed a model which suggested that children have a choice when faced with past tense verbs: they can add -ed or retrieve a special form. This is developed by Steven Pinker in his books Words and Rules (London: Weidenfeld & Nicholson, 1999) and The Language Instinct (New York: William Morrow & Company, 1994). Get reading if you want to do Linguistics at uni! 