Psych 229:
Language Acquisition

Lecture 2
Introduction to Language Acquisition
Continued

Possible objections to mental grammar

What about people who speak Esperanto, who say things like “If I get two bananas” They don’t have grammars in their heads.

The argument for innate knowledge

Suppose we have mental grammars in our heads - how did they get there?

The argument for innate knowledge

Although children often learn words as a result of parental imitation, it is far clearer that they learn grammatical rules this way. Anyone who has attempted to teach a non-native speaker English will have noticed that the first sentence above is not in English. Even adults often use the word “get” when they mean “receive” or “obtain.” However, children do not make this error. Even before they can produce a sentence of their own, they can understand that their parents do not use “get” in this way. The same is true for all children around the world. This suggests that children are born with an innate ability to learn grammatical rules, which we call a “mental grammar.”
The argument for innate knowledge

A question

Discussion question: What does it mean to have a fixed grammar, and how does this relate to children’s mistakes…since they obviously waver around a lot? (Jennifer)
The argument for innate knowledge

Some objections

Additional Discussion:
Domain-general vs. domain-specific? What’s the deal with Universal Grammar? (Emily)

Poverty of the Stimulus: We Know More than We See

Lightfoot (1999): examples of PoS

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<th>a)</th>
<th>b)</th>
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<td>Jay hurt his arm.</td>
<td>Jay hurt his bat.</td>
<td>Jay said he was hurt.</td>
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In adults we generally treat a perception as refer to a preceding event except under very peculiar conditions (10). But then, how do we acquire the eight generalizations, a posteriori knowledge of the concepts?
Possible solution: reliable imitation?

Grammars & Compositionality

Comparison with Vision (Jackendoff 1994)

Back to grammars
Comparison with Vision (Jackendoff 1994)

Impossible figure: Snakes

In this case the principle is easy: roughly, that a corner for boundary in the visual field has to separate the inside of a region from the outside background in a noncontinuous way. I'll call this the Corner Principle.

In contrast, the solution here has to do with curved and rather smooth bands around the outside of the top snake ranges indicating actually the shape of the nervous system and vice versa, making the Corner Principle.

Comparison with Vision (Jackendoff 1994)

Innate knowledge

In each of these domains, our ability to make sense of novel stimuli is supported by a set of abstract patterns that are specialized for that domain.

The Argument for Mental Grammar: In each of these domains, our ability to make sense of novel stimuli is supported by a set of abstract patterns that are specialized for that domain.

The Argument for Innate Knowledge: In each of these domains, the patterns we use in part because our brains are genetically programmed with subcortical systems of these patterns in advance. Learning is not "making up" of patterns, but rather acquiring and elaboration of the innate specialized mental "proto-patterns." That is, a great deal of innate has been learned through evolution.