

X-Bar Parameters
LING 101 Lecture Notes
10/20/03

We can distinguish between two properties of a successful grammar:

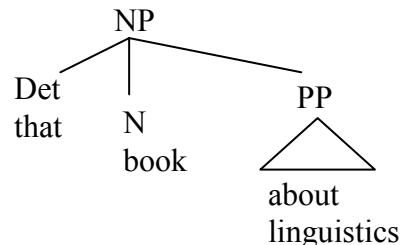
Descriptive adequacy: A grammar with this property correctly assigns ✓ or * to each sentence it is given.

Explanatory adequacy: A grammar with this property

- is descriptively adequate
- accounts for native speakers' intuitions about constituency

For example, a grammar that assigns the structure below to the phrase *that book about linguistics* is not explanatorily adequate because it does not capture the native speaker's intuition that the head and the complement form a unit. (Evidence for this intuition is found in *one*-substitution. In the phrase *that one*, the native speaker substitutes *one* for the head+complement unit *book about linguistics*.)

WRONG STRUCTURE:



- is able to explain the logical problem of language acquisition

The logical problem of language acquisition, also known as Plato's Problem and the poverty of the stimulus, is how children can get their knowledge of language in the absence of enough experience.

The Principles and Parameters Framework

This is an approach to grammar that tries to achieve explanatory adequacy. It divides the grammar into two parts: principles and parameters.

Principles are aspects of human language that are universal to all human languages, and which are potentially present (in some form) at birth.

Parameters are points of permitted variation across languages.

X'-Principles vs. X'-Parameters

The X'-theory is made up of principles and parameters.

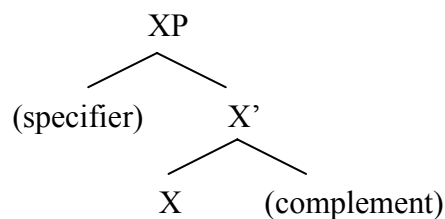
X'-Principles: Every phrase has an X' level and a head X.
Every phrase can contain a specifier.
Every phrase can contain a complement.

X'-Parameters: Specifiers appear to the {left, right} of X.
Complements appear to the {left, right} of X.

In other words, the hierarchical structure of phrases is the same in all languages, but the linear order of the parts of the phrase can vary.

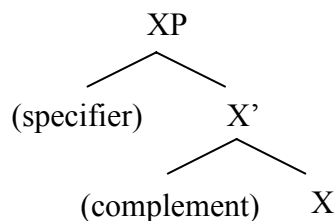
English has the following parameter settings:
Specifiers appear to the left of heads.
Complements appear to the right of heads.

This results in the familiar X'-schema for English and a linear order in which specifiers precede heads, which precede complements.
(Written: specifier >> head >> complement)



Japanese has these parameter settings:
Specifiers appear to the left of heads.
Complements appear to the left of heads.

This results in the following X'-schema for Japanese and the linear order specifier >> complement >> head.

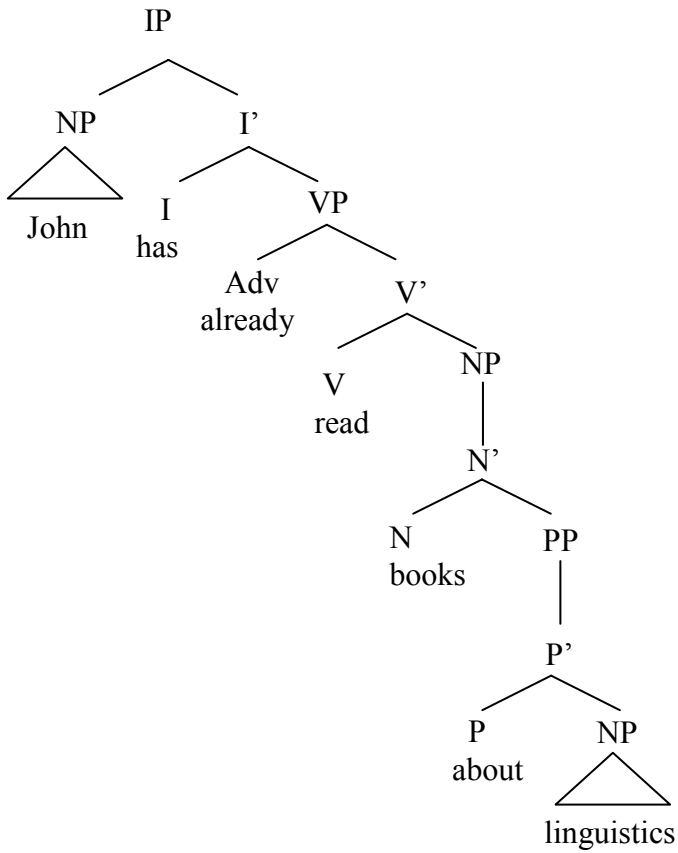


We can see how these different X' schemas result in different linear orders and different trees for the English sentence (1) and its Japanese counterpart (2). The line under the Japanese sentence (2) is called a 'gloss,' and it shows the word-for-word translation.

(1) John has already read books about linguistics.

(2) Kai-ga mou gengogaku nitsuite-no hon-o yon-da
 Kai already linguistics about books read-PAST
 'Kai has already read books about linguistics.'

ENGLISH:



JAPANESE:

