CAS LX 500 Topics: Language Universals
Fall 2010, September 21

4a. Antisymmetry

1 Language universals

Subject-verb agreement and order

Bach (1971) discusses *wh*-questions across SVO and SOV languages, hypothesizing:

"...that Question Movement will never occur in languages that have the deep *and* surface order SOV... As far as I am aware, this conclusion is correct. In fact if we look merely at the surface order, we find a definite negative correlation between Question-word Movement and word-final ordering. In both Greenberg (1963) and [Ultan (1978)] Question Movement seems to be confined to nonSOV languages. It should be made clear that I am not claiming the opposite implication, since there are SVO languages (for example, Thai and Arabic) without Question Movement."

Subject-verb agreement and order

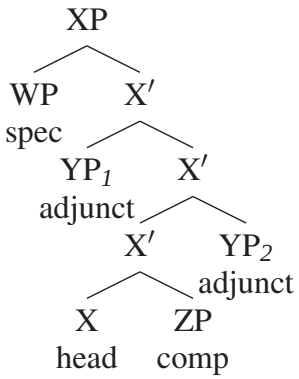
From Greenberg (1963) comes Universal 33. He writes: "A further observation about noun-verb agreement may be made. There are cases in which this agreement is regularly suspended. In all such cases, if order is involved, the following seems to hold:"

Universal 33
When number agreement between the noun and verb is suspended and the rule is based on order, the case is always one in which the verb precedes and the verb is in the singular.

2 Antisymmetry

X′ syntax

As we've seen a couple of times, there was a hypothesis that become widely accepted in the syntactic literature that sentence structures are made from a "template" or "schema," the X′ structure.



Word order parameters

The way this structure was usually viewed was as a kind of "mobile." A language might choose which side of the head its complement goes on (the "head-parameter"), and which side of its X′ its specifier goes on (the "spec-parameter"). As far as the syntax is concerned, these are the same—same hierarchical structure.

So, Japanese, an SOV language, would be spec-initial, head-final. English, an SVO language, would be spec-initial, head-initial. But where are the spec-final languages?

The antisymmetry of syntax

Kayne (1994) takes a close look at the X′ theory, and argues that we shouldn't assume that it is "built-in" as part of UG. For one thing, he argues that it provides too many degrees of freedom. Things we expect to see aren't there, and now we have to explain why.

Kayne's basic proposal is that there is a strict mapping between the hierarchy and the order in which things are pronounced.

The antisymmetry of syntax

Things that are, roughly, higher in the tree are always pronounced before things that are lower in the tree. He formalizes this quite rigorously, but the bottom line is that:

- Since a specifier is higher than both the head and the complement, a specifier is always pronounced before both head and complement.
- Since heads are higher than the heads of their complements, the head is always pronounced before the complement.

("Higher" means "asymmetrically c-commanding.")

Rules of pronunciation

Kayne's larger proposal is that this is how the "pronunciation" part of our language system deals with the hierarchical trees. In order to utter a sentence, you have to say something first.

Furthermore, he proposed that the pronunciation system is kind of dumb. It simply can't handle things which aren't ordered with respect to one another. If a tree were ever created that didn't have this "antisymmetrical" property, the pronunciation attempt would simply fail. This follows in particular from his "Linear Correspondence Axiom," which says that the hierarchy defines a linear ordering of the terminal nodes of the tree.

SVO or OVS?

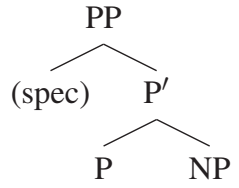
To this point, nothing in principle requires that the basic order be specifier-head-complement—it could as easily be complement–head–specifier, that would still satisfy the strict mapping between hierarchy and surface order. But it's clear from just looking at the languages that are out there that, if either of those is going to be the basic order, it's going to have to be the spec-head-comp one.

Particularly the specifier. Specifiers are almost always to the left—with just about no exceptions.

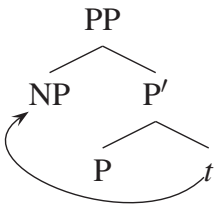
3 Agreement and typology

Prepositional languages vs. postpositional languages

So, a language that has prepositions has a structure something like the top tree, where the P is higher than the N inside the NP, and so is pronounced first.



A language with postpositions must have started the same way, but then moved the NP over the P (a kind movement we're well familiar with by now), so that the NP is then higher than the P.



Agreement

Kayne cites Ken Hale as having observed that there are postpositional languages (like Navajo), where the adposition agrees with the noun phrase—but that there seem not to be SVO (prepositional) languages that have this property. Kayne notes Hungarian, where the P-NP order is only possible for those Ps that never show agreement.

If agreement is something that happens between specifiers and heads (which is frequently the way it is thought about—the subject in the specifier of IP, for example, often agrees with the tensed element in I), then we have a way to understand this asymmetry.

And without the "all languages are spec-head-comp" proposal, we wouldn't have expected that.

More agreement

Greenberg's (1963) universal 33 says that one can find languages where there is number agreement between the subject and verb when the subject precedes the verb but not when it follows the verb—Arabic is one such case—but there aren't languages that go the other way around (agreement in VS order but not in SV order).

Same explanation as with the prepositions—SV order could have arisen from a structure when S is in the specifier of I, where V has moved to I. But VS order could not arise that way, if we have VS order, the V is necessarily higher than the S, and so the S can't be in its specifier.

V2 vs. V-penultimate

Among the asymmetries in the language typology is the fact that there are quite a number of languages (Germanic ones particularly) that have the "verb second" property—the verb seems to always need to follow something, but it doesn't have to be the subject. (adverb V S O, or S V O, or O V S.)

But there don't seem to be any "verb penultimate" languages. Again, the spec-head-complement structure explains that if the V2 property arises from getting the verb up to the C and putting the peripheral phrase in the specifier of CP (like in *wh*-movement in English).

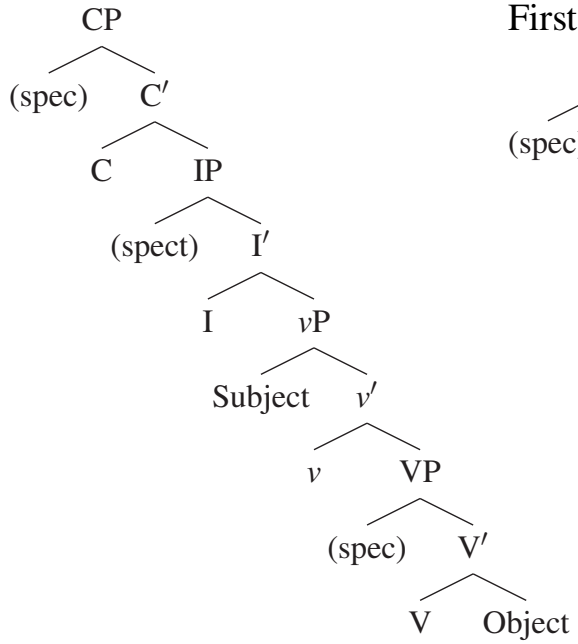
4 SOV languages

SVO vs. SOV

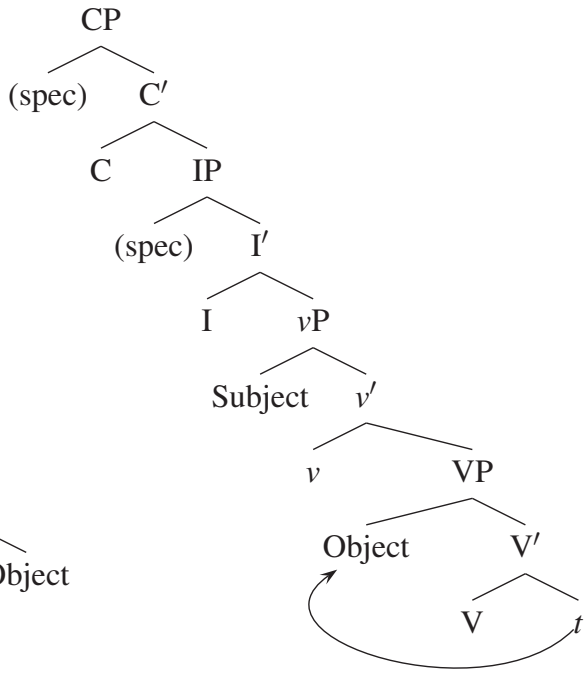
This kind of proposal works fine for English and Chinese and a lot of the worlds languages that are relatively transparently SVO (that is, spec-head-comp). But even more languages are SOV ("spec-comp-head"), and—by hypothesis—those languages are out of their basic order.

In fact, quite a number of SOV languages are actually S-O-VIC languages—where the verb, the tense, and the complementizer are fused together, in that order, but agglutinative, where each morpheme is still identifiable.

Getting from CSIVO to SOVIC: 1

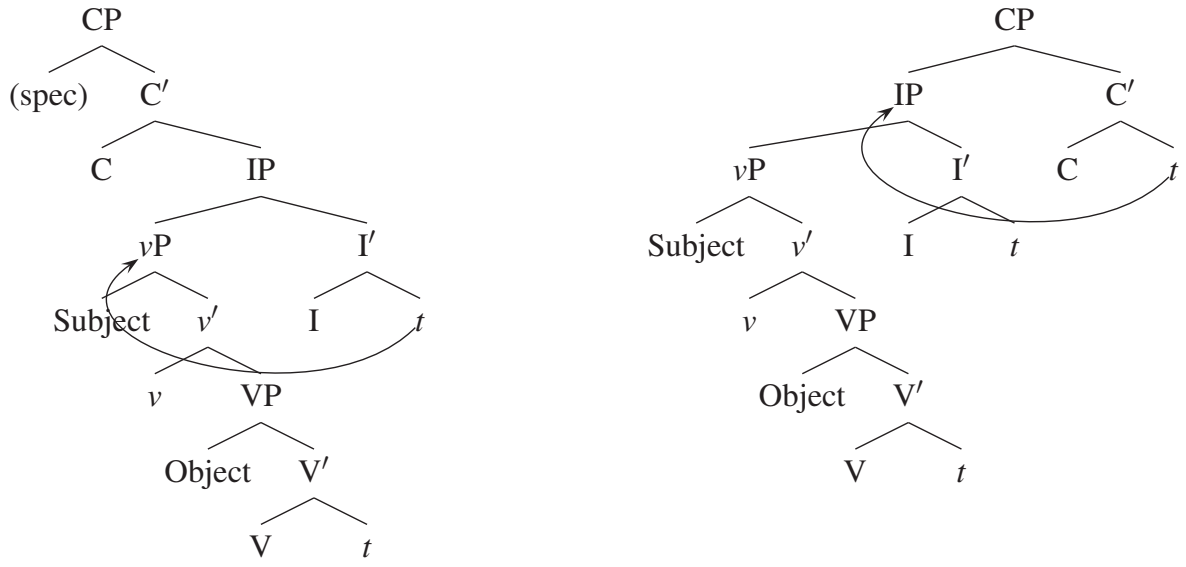


First move the O.



Getting from CSIVO to SOVIC: 2

Then the VP. Then IP.



Predictions: *That-trace*

In a subset of SVO languages, it is bad to ask a subject question out of an embedded sentence that has *that*.

(1) a. What did you think [John bought _]?
b. What did you think [that John bought _]?
c. Who did you think [_ bought the painting]?
d. * Who did you think [that _ bought the painting]?

If this is due *that* being just above the place where the subject used to be, this pattern shouldn't happen in "head-final" languages. Kayne doesn't know of any reports.

Predictions: Question formation

In a lot of languages, you form a *wh*-question by moving the *wh*-word to the front—that is, moving it into the specifier of CP.

Some languages don't have *wh*-movement though—it's extremely rare in SOV languages. In Japanese, the *wh*-word stays "where it belongs." But, then again, where could it go?

(2) a. Taroo-ga hon-o kaimasita.
Taro-NOM book-ACC bought.POL
'Taro bought a book.'

b. Taroo-ga nani-o kaimasita ka?
Taro-NOM what-ACC bought.POL Q
'What did Taro buy?'

Ga? Wa?

And some more thoughts off the handout about *ga* and *wa* as well. Print.

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