

Today's topics:

- **Practice with trees, constituents**
- **Sentences in the X' schema**
- **Empty categories**

Background preparation:

- *Handout - "Syntax: Basics of X-bar (X') theory"*

0. Today's objectives

After today's class, you should be able to:

- Draw structures for NP, VP, PP using the **X' schema**
 - Head, complement, specifier
 - Compare English vs. Japanese
- Analyze a **sentence** as an **IP** in the X' schema
- Analyze an **embedded sentence** as a **CP**
- Make an argument that Japanese has **null pronouns**, and incorporate them into syntax trees

1. The X' schema for Japanese

Work groups — review from last time

- Draw structures consistent with the X' model
 - Treat *-no* as a **suffix** appearing when certain XPs combine with Ns (not a separate position in the tree)

kono hon-o yonda

'read this book'

kookoo kara

'from high school'

kono kookoo kara-no tomodati 'friend from *this* high school'

kono kookoo kara-no tomodati '*this* friend from high school'

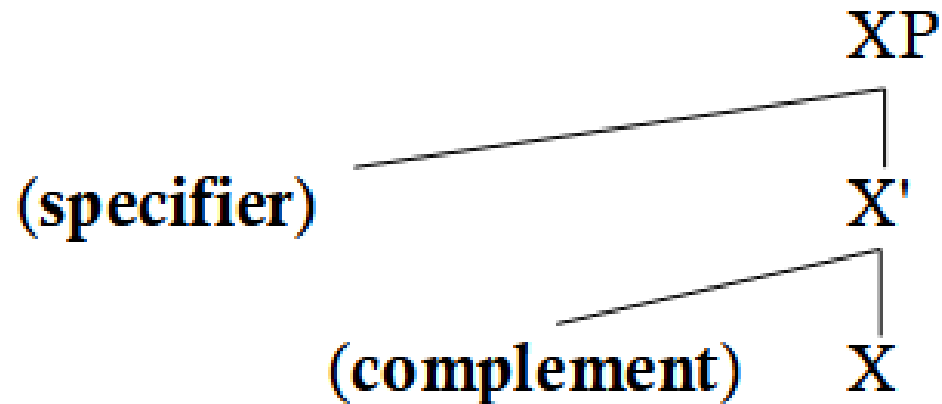
- How does the X' schema for Japanese **differ** from that for English?

1. The X' schema for Japanese

- How can we draw these structures?
- What is the **X' schema for Japanese**?

1. The X' schema for Japanese

- What is the **X' schema for Japanese**?



- Specifier is on the left (like English)
- **Head-final** — **complement** is to **left** of **head**

2. The sentence as a phrase

- What is the **structure of a sentence** itself? Is a sentence a type of *phrase* in the technical sense?

2. The sentence as a phrase

- What is the **structure of a sentence** itself? Is a sentence a type of *phrase* in the technical sense?
- Proposal (see also discussion in video)
A sentence (clause) is a phrase (**IP**)* with the following structure: ^{*}[also called **TP** in some approaches]
 - Specifier: The subject (**NP**)
 - Complement: The predicate (**VP**)
 - Head: The “inflection” (**I**) [also called **T**]
English:
 - Modal auxiliary (*can, could, may, will, should, ...*)
 - An (invisible) “tense feature” [+Pst] or [–Pst]

2. The sentence as a phrase

Work groups

- What should IP look like *in Japanese*?
 - Specifier: The subject (**NP**)
 - Complement: The predicate (what category?)
 - Head: The “inflection” (**I**)
- Try drawing an X' structure for these sentences:

Watasi-no tomodati-ga hon-o yon-da.
my friend-NOM book-ACC read-PST

Ano hon-ga omosiro-katta.
that book-NOM interesting-PST

2. The sentence as a phrase

- What should IP look like *in Japanese*?
 - Do we expect IP to be head-initial or head-final?
 - Does the predicate have to be VP?

2. The sentence as a phrase

- What should IP look like *in Japanese*?
 - IP should be **head-final** if all phrases in a language have the same structure
 - I comes *after* predicate
 - Predicate can be **any category that shows inflection (VP, AP)** — not just VP
 - The copula (*da, desu*) is generally treated as V

3. Embedded sentences

- What does an **embedded sentence** look like in Japanese?

Translate: *Aya said that Ken read (a) book.*

3. Embedded sentences

- What does an **embedded sentence** look like in Japanese? (Linguists: Any guesses where the C is?)

Translate: *Aya said that Ken read (a) book.*

Aya-ga [Ken-ga hon-o yon-da] to it-ta.

Aya-NOM [Ken-NOM book-ACC read-PST] **that** say-PST

- What is the word category of 'that' in English?
- What kind of structure is inside the brackets?

3. Embedded sentences

- An embedded sentence is a **CP**
 - A **complementizer** (C) is a head (i.e., word) that turns a sentence (IP [or TP]) into something that can be a complement
 - Example: Embedded clause (complement of V)
 - The *complement* of C is IP
 - A main-clause (matrix) IP is probably also contained inside a CP, but we can't necessarily see that until we start looking at the syntax of questions

3. Embedded sentences | Try these:

- 1 Ken-ga Aya-ga odot-ta to omo-u
Ken-NOM Aya-NOM dance-PST that think-NPST
- 2 Tomodati-ga boku-ga yasasi-i to it-ta
friend-NOM I-NOM nice-NPST that say-PST
- 3 Kodomo-ga kabin-ga oti-ta to saken-da
child-NOM vase-NOM fall-PST that call.out-PST
- 4 Kisyu-ga kaisyu-ga tubure-ru to kaita
reporter-NOM company-NOM collapse-NPST that write-PST
- 5 Gakusee-ga tomodati-ga kurasu-o sabot-ta to mitome-ta
student-NOM friend-NOM class-ACC skip-PST that admit-PST

4. Applying our model

- Now that we have a basic **model** of sentence structure, we can try to **apply** it to some interesting phenomena in Japanese
 - To what extent is the model **universal**?
 - Some useful terminology:
 - **Structural subject** = The NP that is in the subject **position** in the sentence tree
 - **Structural object** = The NP that is in the object **position** in the sentence tree
- What positions are these?

5. “Implied” subjects and objects

- How do we draw syntax trees for these sentences?
What do these sentences mean?

Aya-ga ringo-o tabe-ta

Aya-NOM apple-ACC eat-PST

ringo-o tabe-ta

apple-ACC eat-PST

Aya-ga tabe-ta

Aya-NOM eat-PST

tabe-ta

eat-PST

5. “Implied” subjects and objects

- Compare these examples:

A: Did you eat that apple?

B: #Yeah, I ate.

= grammatical, but infelicitous (contextually odd)

C: *Ano ringo-o tabe-ta?*
that apple-ACC eat-PST

D: *Un, tabe-ta.*
yeah eat-PST

- Is D's response appropriate? What does it mean?

5. “Implied” subjects and objects

C: *Ano ringo-o tabe-ta?*
that apple-ACC eat-PST

D: *Un, tabe-ta.*
yeah eat-PST ‘Yeah, I ate it.’

- The semantic representation (meaning) of D’s reply includes a **reference** to the apple and a **reference** to the speaker (=D)
 - There must be **something in the structure** that is doing the referring!

5. “Implied” subjects and objects

- Proposal: Japanese has **null pronouns**
 - A null pronoun has no phonological content
 - But it is present in the syntactic structure
 - And it contributes meaning to the sentence
 - We can represent a null pronoun as *pro* (pronounced “pro” or “little pro”)
- Draw an X-bar tree for this sentence:
Tabeta.
eat-PST

6. For next time

- Article summary!
- In class, we will continue applying the X' schema to aspects of Japanese syntax