

Today's topics:

- **Introduction to syntax**
- **Trees and constituents**
- **The X' model of phrase structure**

Background preparation:

- *Video - "What makes a basic sentence?" (up to 6:35)*

0. Today's objectives

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

- Compare and contrast **morphology** and **syntax**
- Identify the **subject** and **predicate** of a clause, and demonstrate that they are **phrases** (not words)
- Draw structures for NP, VP, PP using the **X' schema**
 - Head, complement, specifier
 - Compare English vs. Japanese

0. Checking in

- **Article summary** due **M Oct 26** — any questions, clarifications, discussion?

1. Comparing morphology and syntax

- *Review:* **Morphology** — the structure of words and their subparts; how words are formed
 - **Morphemes** as minimal sound-meaning correspondences, stored in the mental lexicon
 - **Rules** for inflection, derivation, and other kinds of **word-formation**
 - **But: Involves a lot of irregular behavior**
 - Individual morphemes can be stored with unpredictable information
 - Example: Irregular verbs are **exceptions** to rules that combine roots and affixes

1. Comparing morphology and syntax

- *New topic:* **Syntax** — the structure of phrases and sentences; that is, *structure above the word level*
 - Words combine together into **phrases**, which combine into **sentences**
 - Syntax is highly **systematic** and regular
 - Speakers can create (and understand) new sentences based on their structure
 - This shows that the mental grammar has rules or principles for **generating** sentences
- Check-in: How do we know sentences aren't all just memorized and used when needed?

1. Comparing morphology and syntax

- The boundary is **not sharply defined** between **morphology** (word-internal structure) and **syntax** (structure of word combinations)
 - It is not always easy to tell when we have a complex word vs. a combination of words
 - Sometimes, a bound form (not a word) may occupy its own position in the syntactic structure
- As we examine the syntax of Japanese, we will find some of these “gray areas”
- Handout - [Context: Syntax](#)

2. Clauses and phrases

Work groups

- The “Ling Space” video focused on some big-picture concepts related to clauses (sentences) and phrases
 - What are the **two main parts** of a clause? How can we define them?
 - What is the evidence that we should think of these as consisting of **phrases** rather than just single words?

2. Clauses and phrases

- What are the **two main parts** of a clause?
- How can we define them?

2. Clauses and phrases

- What are the **two main parts** of a clause?
 - **Subject** and **predicate**
- How can we define them?
 - Video suggests, as an initial attempt:
 - subject “points to the sentence’s topic”
 - predicate “says something about the subject”
 - We need to be more precise here...
 - *subject* and *topic* are not the same
 - we saw last time that subject isn’t always “doer of an action” (Agent) either

2. Clauses and phrases

- How can we define **subject** and **predicate**?
 - Last time, we saw some **positional** and **morphological** diagnostics for subjects
 - Eng: Subject occurs (close) before the verb
 - Jpn: Subject can be marked with *-ga*
 - Word/phrase category:
 - Subject as a **noun phrase**
 - Predicate as “more often than not” a **verb phrase**
 - These are helpful hints, but need refining
- Next time, we will define subject and predicate based on the **tree structure** of the clause

3. Phrases and their structure

- What is the evidence that we should think of subject and predicate as consisting of **phrases** rather than just single words?
 - Consider this example from the video:
Ariadne helped.

3. Phrases and their structure

- What is the evidence that we should think of subject and predicate as consisting of **phrases** rather than just single words?
 - Longer sentences! *The hero helped the people.*
- Native speaker language data shows that words form groups, called **constituents**, inside sentences
 - We will model syntactic constituents with a framework known as the X' ("X-bar") schema
 - We saw constituency in morphology too — remember the two different 'lacquered+chopsticks+box' *rendaku* examples!

3. Phrases and their structure

- **noun phrase (NP)** — structural grouping of words that have a **noun (N)** as their **head**

English:

- *friends*
- *my friends*
- *friends from high school*
- *my kind friends from high school*

Japanese:

- *tomodati*
- *watasi/boku-no tomodati*
- *kookoo kara no tomodati*
- *watasi/boku-no kookoo kara-no daizi-na tomodati*

- A NP can be a single noun or a multi-word phrase
 - These examples can go in the **same positions**
 - Try: Subject, direct object, etc.

3. Phrases and their structure

- **verb phrase (VP)** — structural grouping of words that have a **verb (V)** as their **head**

English:

- *dances*
- *fell*
- *read a book*
- *gives a book to a friend*

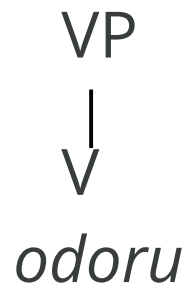
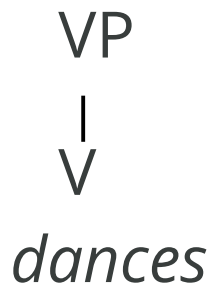
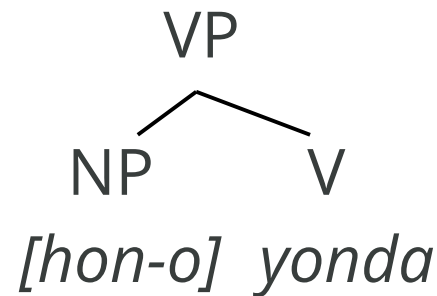
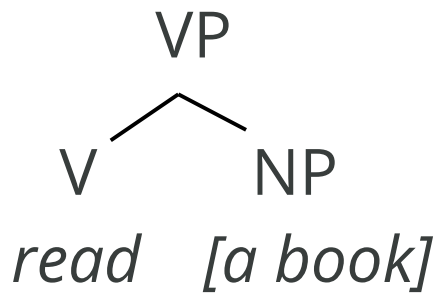
Japanese:

- *odoru*
- *otita*
- *hon-o yonda*
- *tomodati-ni hon-o ageru*

- A VP can be a single verb or a multi-word phrase

3. Phrases and their structure

- Proposal: The head (**V**) can combine with a phrase (called its **complement**; often NP or PP) to form a **VP**
 - A verb can also form a VP with no complement



3. Phrases and their structure

- Another category of phrase: the **PP**
 - **P** = *preposition* in English
postposition in Japanese

English:

- *from high school*
- *until tomorrow*
- *with this pen*

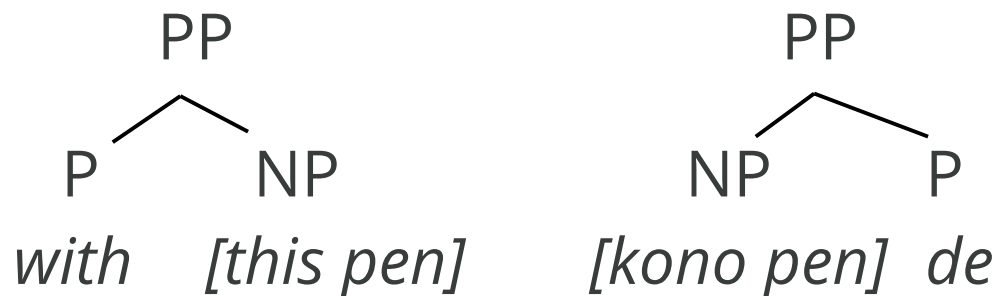
Japanese:

- *kookoo kara*
- *asita made*
- *kono pen de*

- What word is the **head** of a PP?

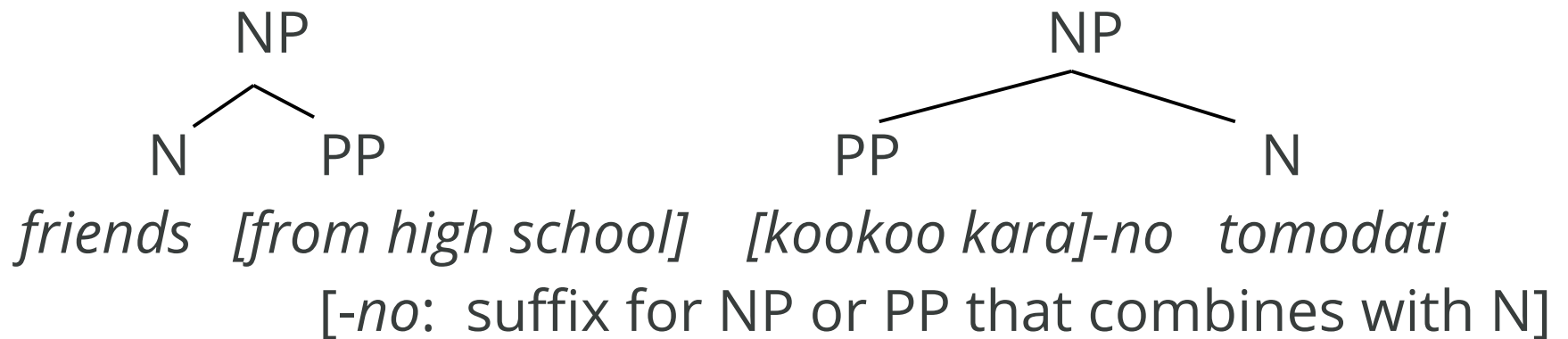
3. Phrases and their structure

- Proposal: The head (**P**) can combine with a phrase (called its **complement**; usually NP) to form a **PP**
 - Note the similarity between our VP and PP proposals for both languages!

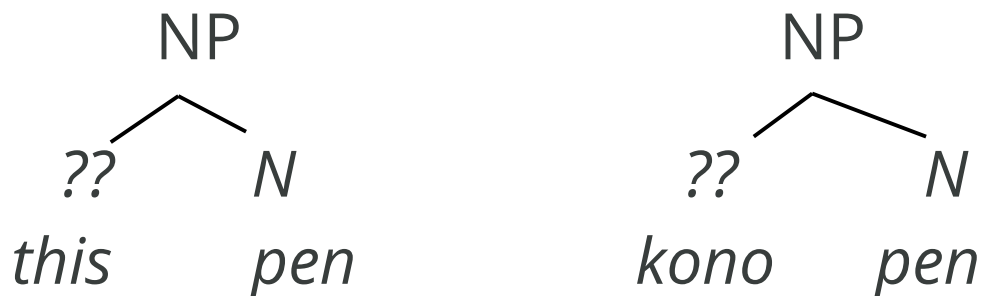


3. Phrases and their structure

- Proposal: NPs also fit this general pattern: head (**N**) plus a phrase (often PP) as its **complement**



- But what about these NPs?



3. Phrases and their structure

- And these?

??	<i>N</i>	<i>PP</i>
<i>my</i>	<i>friends</i>	<i>[from high school]</i>

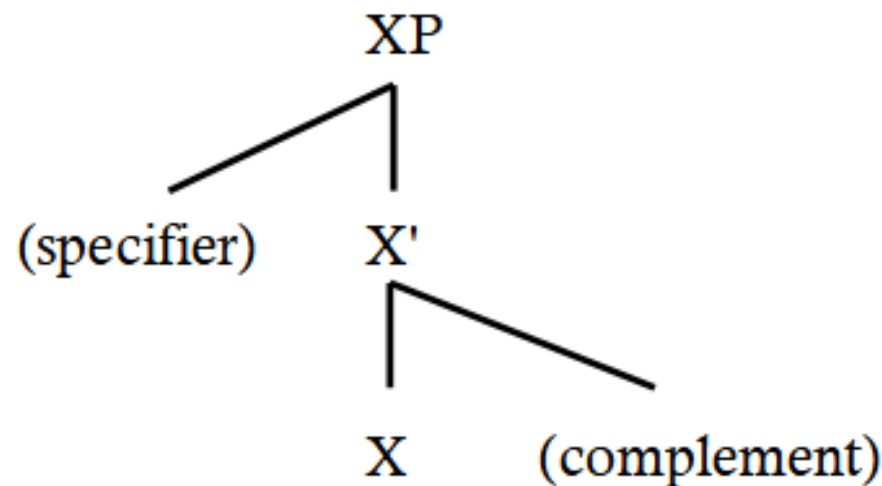
??	<i>PP</i>	<i>N</i>
<i>watasi-no</i>	<i>[kookoo kara]-no</i>	<i>tomodati</i>

- Evidence for an **additional layer** of structure

3. Phrases and their structure

- A general model of phrase structure:
the **X' schema** (pronounced “X-bar”) (see also [handout](#))

For English:



- **X = head** (N, V, P, etc.) → determines phrase type
- **Complement** we have seen
- **Specifier**: For NP, this can be an **article**, **demonstrative**, or **possessor**

3. Phrases and their structure

- Can all phrase types have specifiers?
 - Yes!
 - But in this class, we will only be looking at NP and sentence specifiers, which are especially relevant for future discussions

3. Phrases and their structure

Work groups

- 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?

3. Phrases and their structure

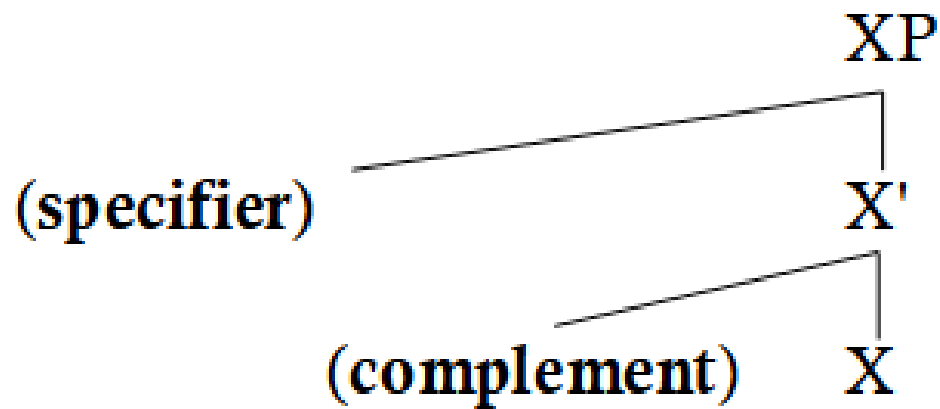
Debriefing

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

3. Phrases and their structure

Debriefing

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



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

4. For next time

- What is the **structure of a sentence** itself?
 - Is a sentence (clause) a type of *phrase* in the technical sense?
 - How can we propose a structure for a sentence that is compatible with the X' schema?