What is ‘SYNTAX’?
→ An area in linguistics that deals with the REGULARLITY of how words are put together to create grammatical sentences.

What are some of the major issues in JPN syntax?
→ scrambling, reflexives, passives, causatives, relative clauses, quantifier floating, postposing, wa & ga (topic construction, double nominative construction)…

1. Syntactic structures

1.1. Syntactic constituency

What is ‘(syntactic) CONSTITUENCY’?
→ a phenomenon in which 2 or more words form a group
A ‘constituent’ is a group of words that GO TOGETHER.

(1) a. Taroo-ga kinoo ookii hanbaagaa-o itsutsu tabeta.
    Do ookii and hanbaagaa form a constituent? →
    Do Taroo-ga and kinoo form a constituent? →
    Do Itsutsu and tabeta form a constituent? →

BTW: ‘Lexical ambiguity’ (in English)
   a. He kicked the bucket.
   b. We are going to Hawai’i!
‘Structural ambiguity’ (in English)
   c. The chicken is ready to eat.
   d. Visiting relatives can be annoying.
   e. He is eating cookies in the box.

Lexical & structural ambiguity (in English)
   f. Time flies. (1) time: noun (subject); (2) time: verb
   g. Time flies like an arrow. Fruit flies like a banana.

Different constituencies → different interpretations
The structures reflecting syntactic constituency can explain ambiguity, while the word order gives no clue.

1.2. Phrase structures

What is a ‘PHRASE STRUCTURE TREE’?
→ It shows (1) what a phrase or a sentence consists of &
  (2) which words form constituents hierarchically.

What are LEXICAL categories?
→ N, V, A, P, ADV, etc.

What are PHRASAL categories?
→ NP, VP, AP, PP, etc.
  (= lexical category + other words)

What is a ‘NODE’?
→ A specific location in a tree where a category label can appear.
In your notebook, draw the tree each for (a)-(c) below.

a. \([\text{NP} [\text{NP} \text{Mari-no} \text{kuruma}]]\)

b. \([\text{NP} [\text{A} \text{takai} \text{kuruma}]]\)

c. \([\text{NP} [\text{AP} \text{tometo} \text{takai} \text{kuruma}]]\)

Which labels are ‘lexical categories’ and which ones are ‘phrasal categories’ in each of the trees above?

- Lexical categories: _________________________________
- Phrasal categories: _________________________________

In your notebook, draw the tree each for (a)-(b) below.

a. \([\text{VP} \text{muzukashii hon-o} \text{yomu]}\)

b. \([\text{VP} [\text{PP toshokan de} [\text{NP muzukashii hon-o} \text{yomu]}]]\)

In your notebook, draw the tree each for (a)-(b) below.

a. \([\text{VP} [\text{NP toshokan de} [\text{VP hon-o} \text{yomu}]]\]

b. \([\text{VP} [\text{PP toshokan de} [\text{NP hon-o} \text{yomu}]]\]

Remember **Case particles** are syntactically treated as part of an **NP**, while **postpositions** are analyzed as a LEXICAL category (P) that forms an independent category.

In your notebook, draw the tree each for (a)-(b) below.

a. \([\text{S} [\text{NP} [\text{N Ken-ga}] [\text{VP} \text{kuruj}]\]

b. \([\text{S} [\text{NP} [\text{N Ken-ga}] [\text{VP toshokan de hon-o} \text{yomu}]]\]
1.3. Phrase structure rules

What are ‘phrase structure rules’?
They indicate the CONSTITUENCY of each phrasal category, and the ORDER among the constituents.

‘Phrase structure rules should be able to express an infinite number of Ss, and be restrictive enough to be able to specify the regularities of the generation of such syntactic structures.

What do ‘phrase structure rules’ look like?

<table>
<thead>
<tr>
<th>S</th>
<th>NP</th>
<th>VP</th>
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</table>

(to be revised later)

NOTE: An element surrounded by parentheses is ‘optional.’

REVIEW: Postpositions (e.g. *ni* ‘at, in, to,’ *de* ‘at, in,’ *kara* ‘from,’ *to* ‘with’) bear specific MEANINGS, while Case particles (*ga, o, ni, wa, no*) usually indicate the grammatical FUNCTIONS of the accompanying NP in a S, such as SUB, DO, IO, TOP, & linker/subordinator.

(12)-(13), pp. 212-214 を見る！
**Ss w/ relative clauses**

a. H-ga [NP [S [s T-ga \( t_i \) tsukutta] [COMP \( \circ \)] sushi\( i \) -o] tabeta

b. [NP [S [s T-ga \( t_i \) tsukutta] [COMP \( \circ \)] sushi\( i \) -ga] aru

(14)-(15), pp. 214-215 を見る！

**Things to remember about relative clauses:**

1. Modifiers always come BEFORE words to be modified in JPN.
2. S + N form an NP.
3. There is no ‘relative pronoun’ (e.g. who, which, that) in JPN.
4. The N that is modified by a S (=relative clause) and its ‘original’ location (or trace) are CO-INDEXED (by subscript \( i, j \), etc.).

**Ss w/ indirect quotations**

a. [s\( s_1 \) T-ga [VP [s\( s_2 \) H-ga oishii sushi-o tsukutta] [COMP to]] itta]

b. [s\( s_1 \) T-ga H-ni [s\( s_2 \) sensei-ga Tookyoo-e itta] [COMP to]] itta

Quoted S = ‘direct object’ (Tsujimura) \( \rightarrow \) Adjunct (adverb)? (MEH)

Cf. (1) T-ga [ H-ga oishii sushi-o tsukutta ] (to / *o ) itta.

(2) Ken ga { soo / *sore o } itta. ‘Ken said so.’ (soo: adverb)

(3) Ken ga shinjitsu o itta. ‘Ken said the truth.’ (NOT quote!)

(4) Ken ga yuukuri-{ to / *o } aruita. (to: adverb maker)

(5) Ken ga hu-{ to / *o } mita. ‘Ken looked suddenly.’

Tsujimura (2007), Ch. 5 (1), page 7 of 10
1.4. The notion of head

REVIEW: Phrase Structure Rules

\[
\begin{align*}
S' & \rightarrow S \text{ COMP} \\
S & \rightarrow NP \text{ VP} \\
NP & \rightarrow (S') \text{ (NP) (AP) N} \\
VP & \rightarrow (PP) \text{ (NP) (PP) (NP) (S') V} \\
PP & \rightarrow NP \text{ P} \\
\end{align*}
\]

What is a ‘HEAD’?
→ the lexical category around which a phrasal category is formed; e.g. N, V, A, P.

1. An NP always has an N, a VP always has a V, PP always has…
2. The meaning of the head is preserved at the PHRASAL level.

What are the NPs in (a)-(c) about?

a. \[\text{NP Ken-no [N kuruma]}\] → \text{Kuruma.}

b. \[\text{NP atarasii [N kuruma]}\] → \text{Kuruma.}

c. \[\text{NP Ken-no atarasii [N kuruma]}\] → \text{Kuruma.}

What is the VP in (d) about?

d. \[\text{VP [N susi-o] [V taberu]}\] → \text{Taberu.}

What is the VP in (e) about?

e. \[\text{VP ashita tomodachi to OMI de sushi-o [V taberu]}\] → \text{Taberu.}