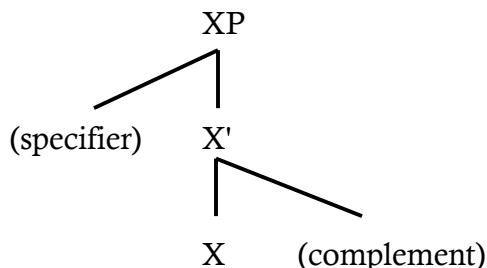


Syntax: Basics of X-bar theory

- See O’Grady et al. (2010) reading for more discussion and English examples
- (1) Structure matters: Words form **constituents** (groups, ≈phrases) in syntactic structure
 - (a) Native speaker behavior shows us that these groupings are valid
 - Movement, replacement, etc. → operations over syntactic constituents
 - Meaning is affected by syntactic constituency

She watched the spies with the binoculars
 - (b) Therefore, we need our model of mental grammar to build syntactic structure on the basis of constituents as well
 - (2) The **X-bar schema**
 - (a) This is a model of the syntactic component of mental grammar
 - (b) We will first learn how the model works, and then begin to test it on language data
 - (c) Our goal for this course is to learn enough syntactic theory to be able to examine interesting phenomena in Japanese — so there are many details of the X-bar model (and syntax in general) that we will not pursue
 - (3) The general version of the X-bar schema *for English* is:



- (a) **head** — The word that is the “core” of the phrase
 - determines the type of phrase (X is the head of XP, for any X)
 - (b) **complement** — the phrase that is the sister of X (the head)
 - A complement is a phrase that the head *requires* inside its own phrase
 - Examples: Direct object (complement of V); object of preposition (complement of P)
 - (c) **specifier** — the phrase that is the daughter of XP
 - A specifier is a “subject-like” phrase that occurs with a head (*yes, this is vague!*)
 - Examples: Possessor (spec. of N); certain adverbs (spec. of V, A, P)
 - The subject of a sentence is the specifier of the IP phrase [also called TP]
- The *linear order* of elements (left-to-right) is **language-specific**
 - Nodes are generally **binary-branching** (exceptions will be noted)

(4) **Lexical categories as heads** of phrases

(a) “Lexical” (~open-class) categories = N, V, A, P

(b) These words are **heads** of phrases (phrases may also contain specifier, complement, and/or modifier [below], which generally provide more information about the head)

- Whenever you see a word that is one of these categories, it **must project a phrase**

(5) The **sentence** as **IP** [also called **TP**]

(a) The head of a sentence is **I** [or **T**], the “inflectional [tense] head”; morphemes (possibly abstract/null ones) involving grammatical features such as *tense* (past, future, etc.) and *modality* (possibility, necessity, etc.) typically go in this position

(b) The **complement** of an IP [or TP] is the **predicate** of the sentence

(c) The **specifier** of an IP [or TP] is the **subject** of the sentence

- Note: We now have a *structural* way to define these traditional terms — how can we describe their **position in the tree**?

- Subject =

- Direct object =

(6) Complementizer phrases (CPs)

(a) A **complementizer** (C) is a head (i.e., word) that turns a sentence (IP [or TP]) into something that can be a complement

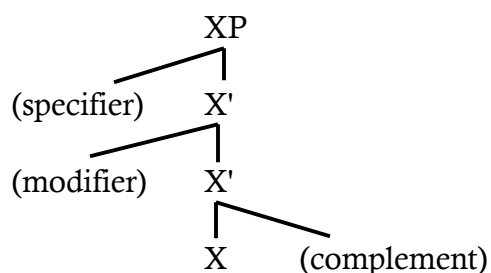
- Example: Embedded clauses

(b) The *complement* of C is IP [or TP]

(c) The *specifier* of C is ... a very useful position to move things into in some languages

(d) A main-clause (matrix) IP [or TP] is probably also contained inside a CP, but we can't necessarily see that until we start looking at the syntax of questions

(7) To the general structure we can add **modifiers** (*warning: the reading takes a shortcut here!*)



- **modifiers** are also known as **adjuncts**

(a) Modifiers cause **recursive** (extra stacked) **X' nodes** to appear

(b) Modifiers are **optional** (their presence is not required by the head)

- Examples: APs modifying N, or certain PPs modifying N, V

(c) Again, **linear order** (left/right side of X') depends on language and/or modifier type

(8) Where are we? Evaluating the X-bar schema/back to our starting point

- We are predicting that the maximal string of elements **dominated by a common node** in a syntax tree is a **constituent** according to native-speaker judgments