

## Revision: Lexical categories. Grammatical functions. Theta-roles. The X-bar theory: heads, complements, specifiers, adjuncts

- ➔ This class will consist of a revision of the main concepts and categories of previous lessons' material. Mid-terms tests led me to think that such a revision might be useful :)
- ➔ Understanding the notions below is essential for the purposes of Syntax courses (and will be a must for the final test)

### 1. Lexical categories / parts of speech: szófajok

- ➔ Words belong to lexical categories.

A traditional classification (fill in the gaps with the English terms. Complete version will be uploaded to <http://seas.elte.hu/coursematerial/AsztalosErika/index.html>):

- nouns 'főnevek': *The **band** played only new **songs**.*
- pronouns 'névmások': *I don't really know **you**. / **That** is an awful painting!*
- articles 'névelők': ***the**; a(n)*
- adjectives 'melléknevek': ***English**; **green**; **dangerous***
- verbs 'igék'
- auxiliaries 'segédigék': modal verbs (*can, may, must*) and temporal auxiliaries (*have*) are a subgroup of verbs
- adverbs 'határozószók': *Ride your bike **carefully**. / Time goes **fast**.*
- prepositions 'előjárószók': ***in/to/from** Oxford; **with** my uncle; **for** you*
- conjunctions 'kötőszók':
  - subordinating: *I hope **that** you had a good time. / I don't know **if** I would change anything.*
  - coordinating: ***and, but, or***
- interjections 'felkiáltószók': ***Wow!** / **Ouch!***

### In the textbook's generativist approach:

- verbs (V) 'igék'
- auxiliaries 'segédigék' = 'inflections' (I)
- nouns (N) 'főnevek'
- determiners (D) 'determinánsok'
  - articles are a subgroup of determiners
  - other determiners: ***my** experience; **this** pain*
- adjectives (A) 'melléknevek'
  - adverbs 'határozószók' are seen as a subgroup of adjectives (except for degree adverbs)
- degree adverb(Deg) 'fok-, mértékhatározók': ***so** light; **too** heavy, **as** thick*
- prepositions (P) 'előjárószók'
- complementis(C) 'kötőszók'

→ Each of these categories can be **heads** of phrases (frázisok/szintagmák/szószerkezetek fejei lehetnek) → thus we have VP-s, IP-s, NP-s, DP-s, AP-s, PP-s, DegP-s, CP-s

## 2. Grammatical (syntactic) functions (mondattani szerepek)

→ Phrases have some **function in a sentence**, like

- **predicate** ‘állítmány’: typically a verb: *Last year I **went** to Andalusia.*

→ **predicates have arguments** (kötelező vonzatok; their omission from the sentence results in ungrammaticality)

**arguments also have some grammatical function** in a sentence:

- **subject** ‘alany’: it is an argument but not a complement): typically nominal; more precisely, a DP
- **object** ‘tárgy’: nominal, more precisely, DP complements (they are not preceded by any preposition):
  - **direct object**
  - **indirect object**
- **prepositional complement**

## 3. Semantic roles (thematic roles/theta-roles)

→ **Arguments** not only have a function, they have a **meaning** as well.

- semantics = jelentés
- predicates (typically verbs) determine the meaning of their arguments – each verb requires a certain number of arguments, and the verb “prescribes” the **type of meaning** of its arguments
- a non-exhaustive list of theta-roles (fill in):
  - agent:** the participant who deliberately performs an action: ***Ryan** hit Andrew.*
  - experiencer:** the participant that experiences some (psychological, emotional, etc.) state:  
***Leah** likes cookies. **Lorenzo** saw the eclipse.*
  - theme:** an entity which undergoes an action / is moved, experienced or perceived:  
*Alyssa kept **her syntax book**.*
  - patient:** an entity which undergoes an action (and some kind of change of state: *Ryan hit **Andrew**.*
  - goal:** the participant towards which the activity is directed: *Doug went **to Chicago**.*
  - recipient:** a special kind of goal, only occurs with verbs that denote a change of possession: *Mikaela gave **Jessica** the book. **Daniel** received a scolding from Hanna.*
  - source:** the place from which a motion takes place: *Stacy came directly **from sociolinguistics class**.*
  - location:** the place in which the action or state is situated: *Andrew is **in Manchester**.*
  - instrument:** the object with which an action is performed: *Chris hacked the computer apart*

*with an axe.*

- **beneficiary:** the one for whose benefit an event took place: *He bought these flowers for Aaron.*

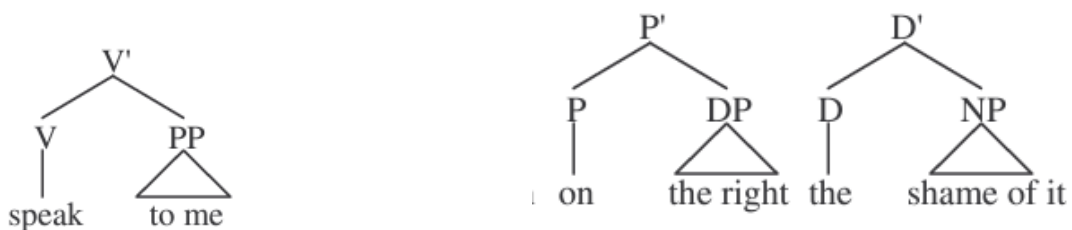
#### 4. Heads, complements, specifiers, adjuncts: the X-bar theory

→ These are **positions** on syntactic trees.

- Sentences are made up of phrases (frázisok/szintagmák/szószerkezetek/kifejezések)
- Phrases
  - always have a **head**. Heads are words which have a lexical category (verbs (V) / nouns (N) / determiners (D) / prepositions (P) etc.)
  - may, but not necessarily have to have a complement and a specifier
- Heads are not phrases, but complements, specifiers, and adjuncts are phrases themselves.
- **Complements:** e.g., direct and indirect objects and prepositional complements
- **Specifiers:** e.g., subjects
- **Adjuncts:** e.g., attributive (i.e., prenominal, i.e., non-predicative) adjectives, like in *sweet memories*, *small pleasures*, *cute dogs*. There are prepositional adjuncts as well: *the guy from Indonesia* (these differ from prepositional complements/arguments in that we can leave them out of a sentence, and the sentence will still be grammatical)

##### 4.1 Heads and complements:

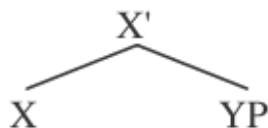
(1)



- although these are constituents of different types (V', P', D'), they all have a very similar pattern: the **head** (X) is on the **left** and the **complement** (YP) is on the **right**:

The complement rule:

(2)



**X' → X YP**

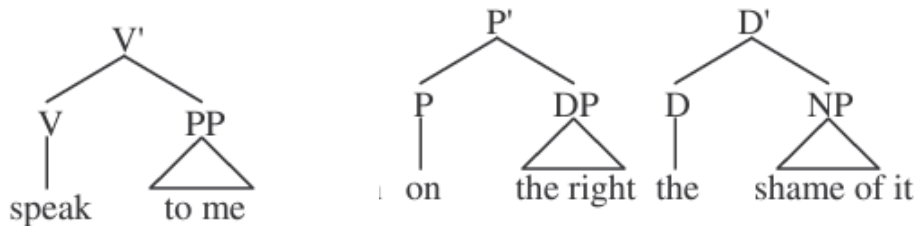
- X' (*X bar*) has two immediate constituents:
  - X = the **head**:
    - the central element of the phrase
    - it is a **word** of the same category as the X' (cf. the tree structures in (4)):

if the head is a verb, the X' will be a V'  
 if the head is an adjective, the X' will be an A' etc.

▪ **YP = the complement:**

- the symbol YP tells us that **only a phrasal** element can sit in the complement position (as **P** in YP stands for **phrase**), but it does not tell us the **category** of that phrase (noun phrase/preposition phrase etc.). It is heads which determine the category of their complements:

(3)



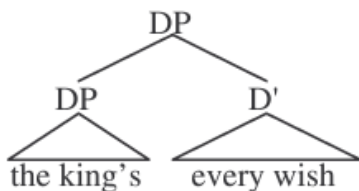
- *speak* (as a head) requires a PP, as, e.g., *\*speak me* (*speak* + DP) would be ungrammatical
- *on* (as a head) requires a DP as, e.g., *\*on of the right* (*on* + PP) or *on right* (*on* + NP) would be ungrammatical
- *the* (as a head) requires a NP as, e.g., *\*the a shame of it* (*the* + DP) would be ungrammatical

## 4.2 Specifiers:

- specifiers always precede the head in English

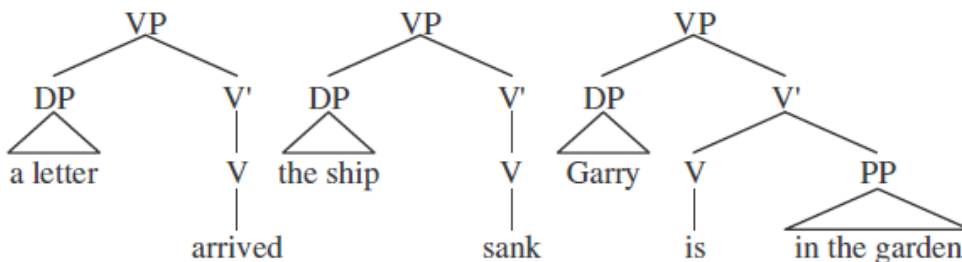
*the king's* is a specifier in (4):

(4)



subjects are also typically specifiers: *a letter*; *the ship*; *Garry*:

(5)



- The **specifier rule** introduces the structural position of the **specifier** (the YP of this rule):

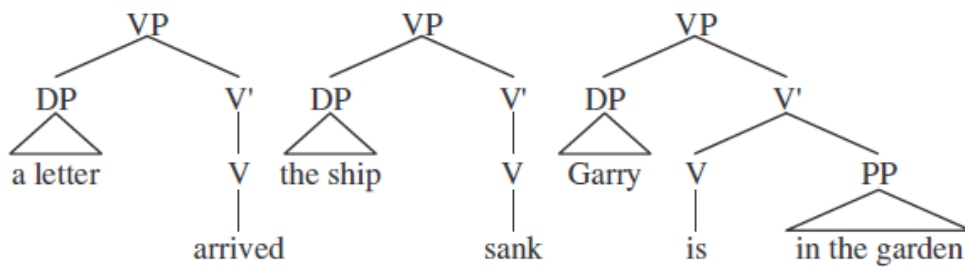
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- XP has two immediate constituents:
  - **X'**: the constituent containing the head and the complement
  - the **specifier (YP)**:
    - a **phrase**
    - in English it precedes the X'
    - specifiers are typically **arguments**, e.g., subjects:

- (7) a. [a letter] arrived  
 b. [the ship] sank  
 c. [Garry] is in the garden

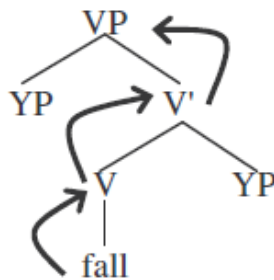
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### 4.3 Projection:

- The head projects its categorial status (whether it is a verb/a determiner/a noun/a preposition/an adjective/a complementiser etc.) from the lexicon to the syntax, i.e. to the X' and ultimately to the XP: if the head is V, then X' = V', and XP = VP. Thus, the whole phrase will be of the same category as the head:

(9)



- We can imagine a phrase as a three-floored building:

- On the ground floor we have the **head**, which is not built on top of anything – it is an unprojected element – a “**zero level projection**” → this can be represented as **X<sup>0</sup>** (the V level in (9))
- Above the head, we have the **X'**, the **1st projection** of the head (the V' level in (9))
- On the top floor: the **phrase, XP** (or X'', *X double bar* – the maximal projection) (the VP level in (9))
  - ! All phrases project to two levels, so no X''', or X'''' , etc.

### 4.3 Adjuncts

- (10) a. **smart** student  
 b. **vicious** dog  
 c. **serious** mistake

→ Main question: What are the adjectives in (10a-c): are they heads/complements/specifiers/something else?

→ What is the **head** of these constructions? Is it the adjective or the noun?

- The **noun**, because the constructions in (10) can act as the complement of a determiner (11a-c), and determiners take nominal complements, not adjectival ones. Thus, the **adjectives in (10a-c, 11a-c) are not heads**

- (11) a. the [<sub>NP</sub> serious error]  
 b. the [<sub>NP</sub> error]  
 c. \*the [<sub>AP</sub> serious]

→ The **adjectives** in (10a-c) are **not complements** either: they do not follow the head noun (and as we have seen, in English, all complements follow their heads)

→ Specifiers precede their heads, so are the adjectives in (10) **specifiers?**

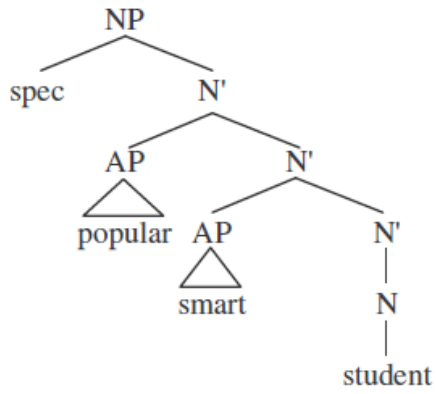
**No**, because

- specifiers tend to be arguments – adjectives, however, are not arguments as we can leave them out and the construction will still be grammatical, cf. (11b)
- a construction may only have one specifier, while there can be more than one adjectival modifier of a noun (12a-c):

- (12) a. popular smart student  
 b. big evil vicious dog  
 c. solitary disastrous unforgivable serious mistake

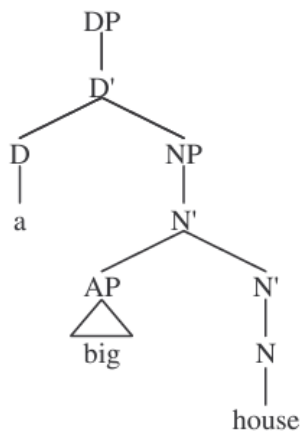
→ they are **adjuncts**:

(13)

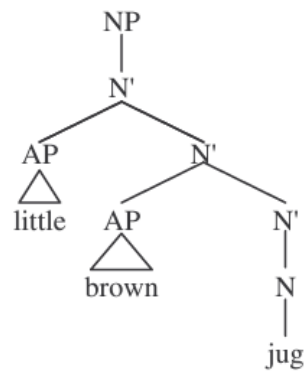


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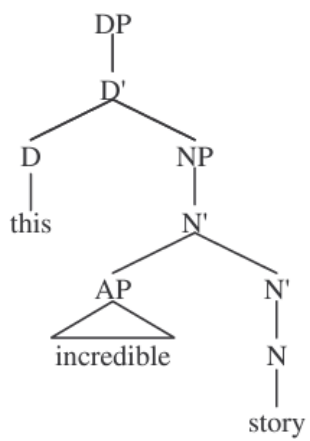
a)



b)



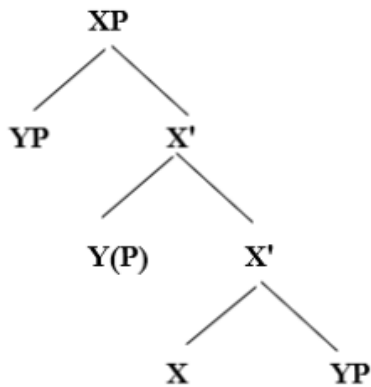
c)

**The adjunct rule:**

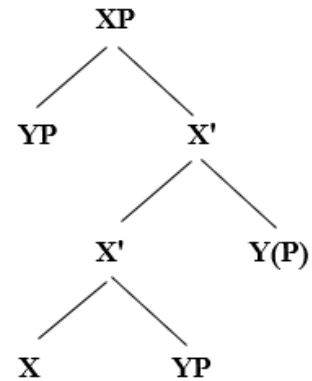
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$$X^n \rightarrow X^n, Y/YP$$

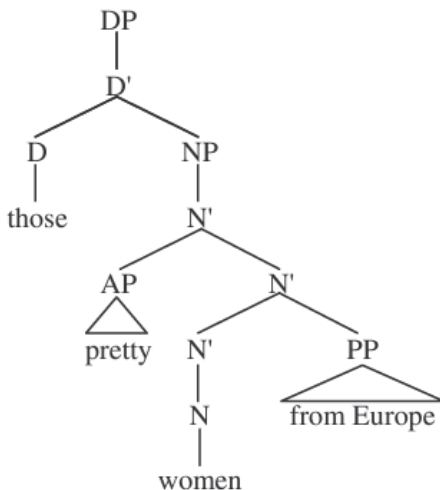
(16a) Left-adjunction:



(16b) Right-adjunction:



(17) Right-adjunction:



- $X^n$  may stand for  $XP (= X^n)$ ,  $X'$  or  $X (= X^0)$
- adjunction = we may add either a word (Y) or a phrase (YP) to  $X^n$ ,  $X'$  or  $X$  in a way that it does not introduce a new “projection level”: adjunction does not add a new projection level (it differs in this respect from the complement rule and the specifier rule);  $X^n$  stays an  $X^n$  even when we add an adjunct (or several adjuncts) to it
- The comma indicates that the order between the adjunct and the  $X^n$  is not determined by the rule: while in English the complement follows the head and the specifier precedes it, the **adjunct may precede or follow the head** depending on other conditions (e.g., PP adjuncts follow the head, e.g. *Ricky gave a concert on Saturday*)
- The adjunction rule is **recursive**: the same symbol appears on the left and the right of the rewrite arrow. Any number of adjuncts may be added to a structure

**Homework: Ex. 14 a), b) + Ex. 15 d) and e)**



**Exercise 14**

The X-bar theory predicts that in English the following sentences are ungrammatical. Explain how the X-bar theory can account for the ungrammaticality of the sentences below. Notice that the phrases in italics are responsible for the ungrammaticality of the sentences.

- (1) a \*The *teacher from France of English* likes going to open lectures.  
 b \*Mary often *drives too fast her car*.  
 c \*Every *student in Cambridge of Physics* gets an excellent job.

**Exercise 15**

Give the tree diagram of the following phrases.

- (1) a a big house  
 b little brown jug  
 c this incredible story  
 d a tall handsome student of physics  
 e funny little thing  
 f those pretty women from Europe