Properties of X-bar Schema

Complements/adjuncts/specifiers, capturing word order variations across languages with X-bar theory

Ling 322

Read *Syntax*, Ch. 6

(Lecture notes based on Andrew Carnie's notes)

X-bar Theory

- Rules

  Specifier Rule: XP $\rightarrow$ (YP) X$'$

  Adjunct Rule: X$'$ $\rightarrow$ (ZP) X$'$ *or* X$'$ $\rightarrow$ X$'$ (ZP)

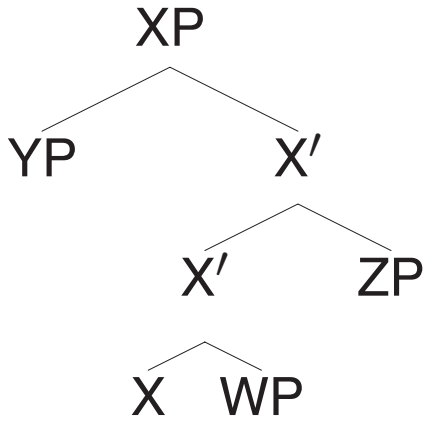
  Complement Rule: X$'$ $\rightarrow$ X (WP)

- Terminology

  Specifier (YP): daughter of XP, sister to X$'$.

  Adjunct (ZP): daughter of X$'$, sister to X$'$.

  Complement (WP): daughter of X$'$, sister to X.

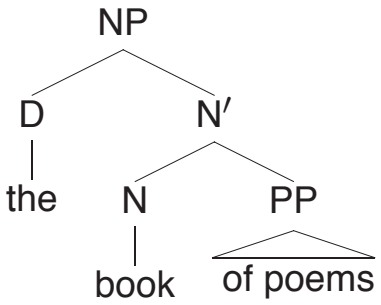


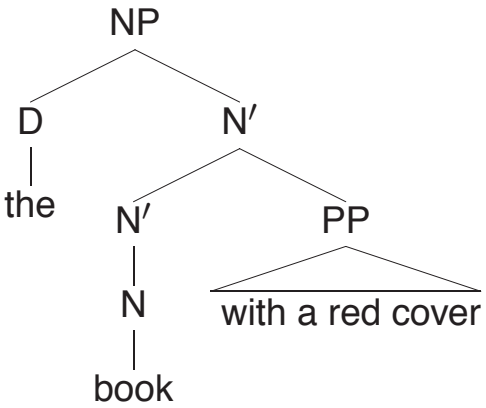
Complement/Adjunct Distinction in NPs

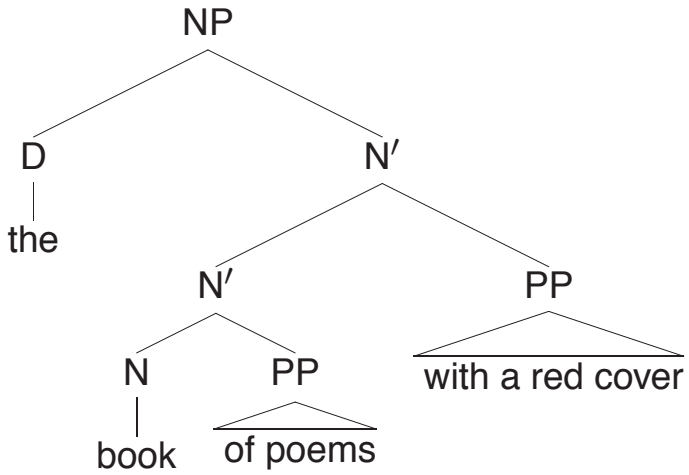
(1) a. the book [of poems]

b. the book [with a red cover]

c. the book [of poems] [with a red cover]







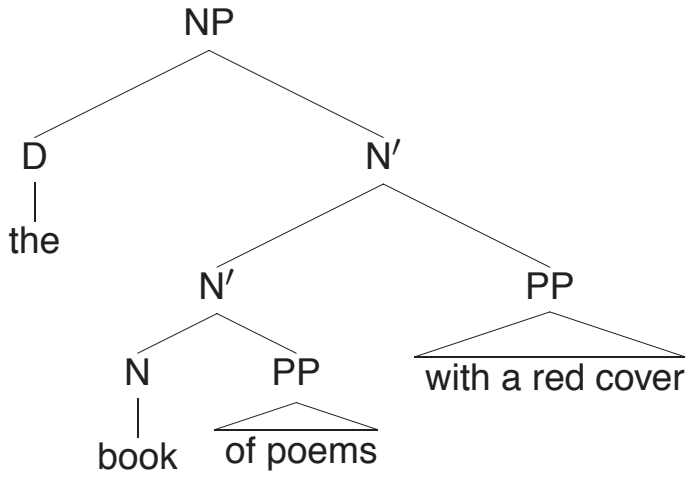
Do complements and adjuncts behave differently in syntax?

Complement/Adjunct Distinction in NPs (cont.)

- Complements are always closest to the head (since complements are sister to the head), but adjuncts may be separated from the head.

(2) a. the book of poems with a red cover

b. * the book with a red cover of poems



Complement/Adjunct Distinction in NPs (cont.)

- A phrase can have multiple adjuncts, but only one complement.

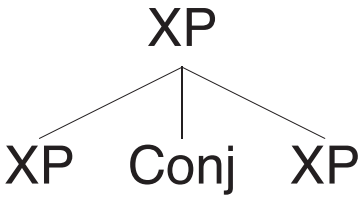
(3) a. the book of poems with a red cover from Blackwell on the desk
b. * the book of essays of poems from Blackwell

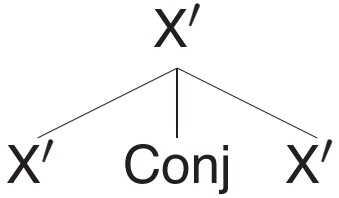
- Adjuncts can be reordered with one another.

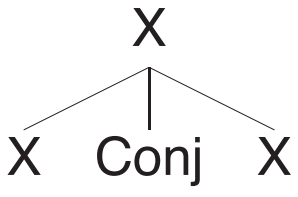
(4) a. the book of poems from Blackwell with a red cover on the desk
b. the book of poems with a red cover from Blackwell on the desk
c. the book of poems with a red cover on the desk from Blackwell
d. the book of poems on the desk with a red cover from Blackwell
e. * the book from Blackwell of poems with a red cover on the desk
f. * the book with a red cover of poems from Blackwell on the desk

Complement/Adjunct Distinction in NPs (cont.)

- Conjunction Rule: XP $\rightarrow$ XP Conj XP; X′ $\rightarrow$ X′ Conj X′; X $\rightarrow$ X Conj X







Complement can be conjoined with complements.

(5) the book of poems and of essays

Adjuncts can be conjoined with adjuncts.

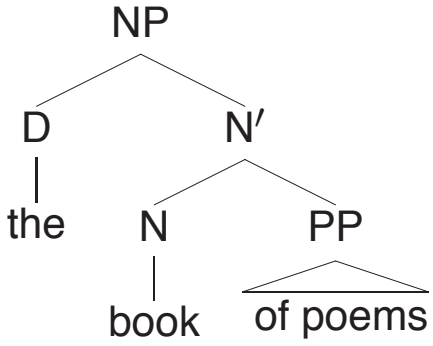
(6) the book with a red cover and with a blue spine

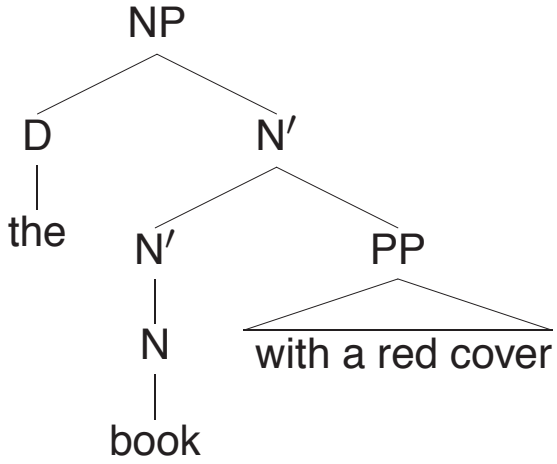
Complements cannot be conjoined with adjuncts.

(7) * the book of poems and with a red cover

Complement/Adjunct Distinction in NPs (cont.)

- *One*-replacement: *one* can replace an N′ node.





$\Longrightarrow$ An adjunct can follow *one*, but a complement cannot.

(8) a. the [book] with a red cover, not the [one] with the blue cover
b. this [book of poems], not that [one]
c. * the [book] of poems, not the [one] of essays

(Not a fool-proof test. There is a dialectal difference about the acceptability of this last example.)

- QUESTION: Give all possble structures for the folloing NP.

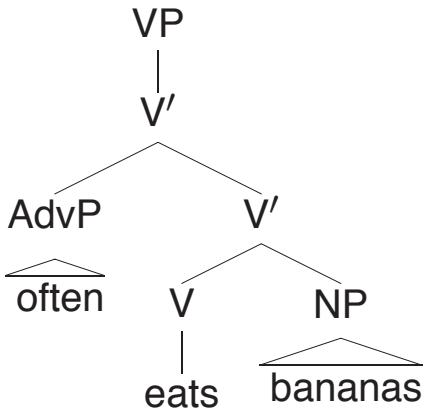
(9) a one-eyed purple people eater

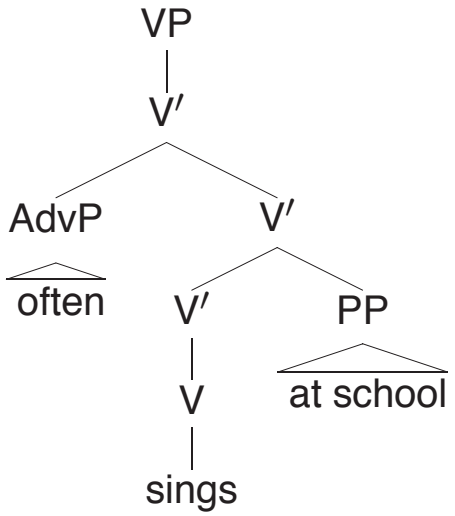
Complement/Adjunct Distinction in VPs

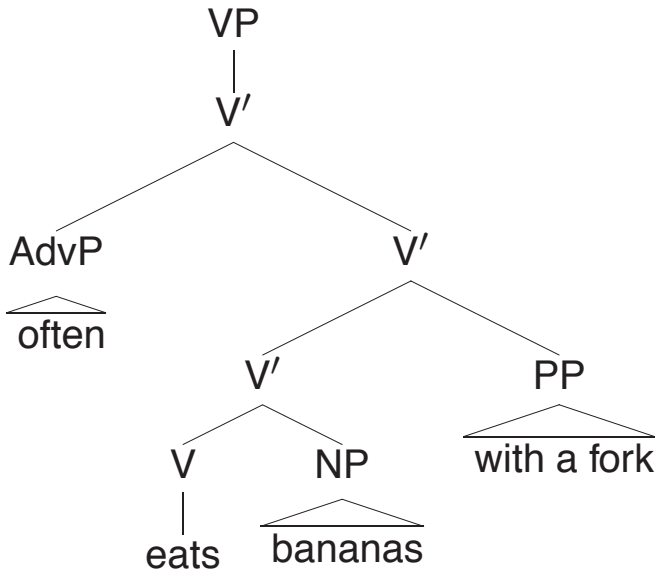
(10) a. John often eats [bananas].

b. John often sings [at school].

c. John often eats [bananas] [with a fork].







Complement/Adjunct Distinction in VPs (cont.)

- Multiple adjuncts, but only one complement

  Illustrate.

- Adjuncts can be reordered.

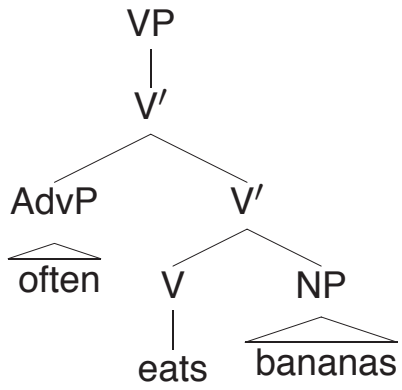
  Illustrate.

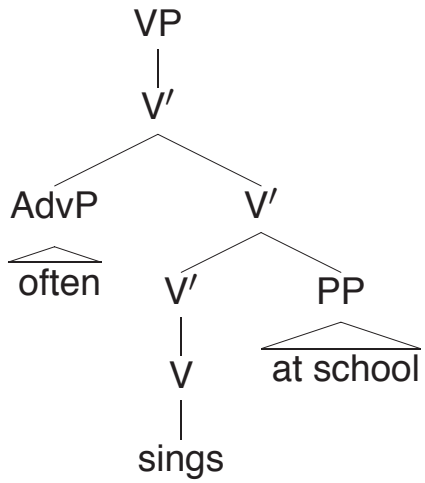
- Conjunction

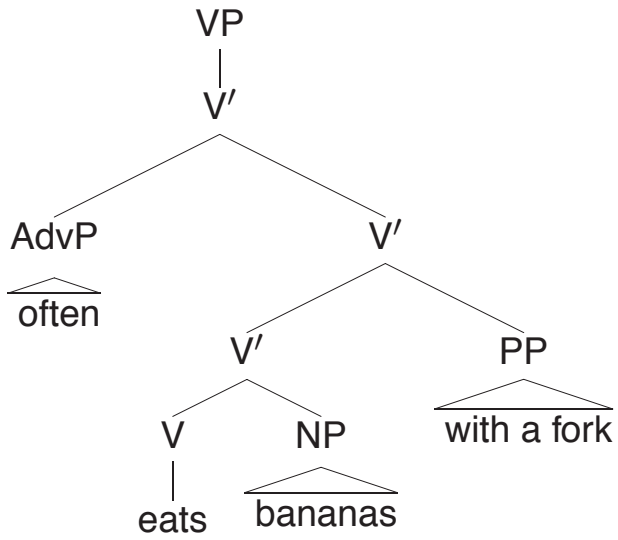
  Illustrate.

Complement/Adjunct Distinction in VPs (cont.)

- *Do so* replacement: V′s can be replaced with *do so*.







$\Longrightarrow$ An adjunct can follow *do so*, but a complement cannot.

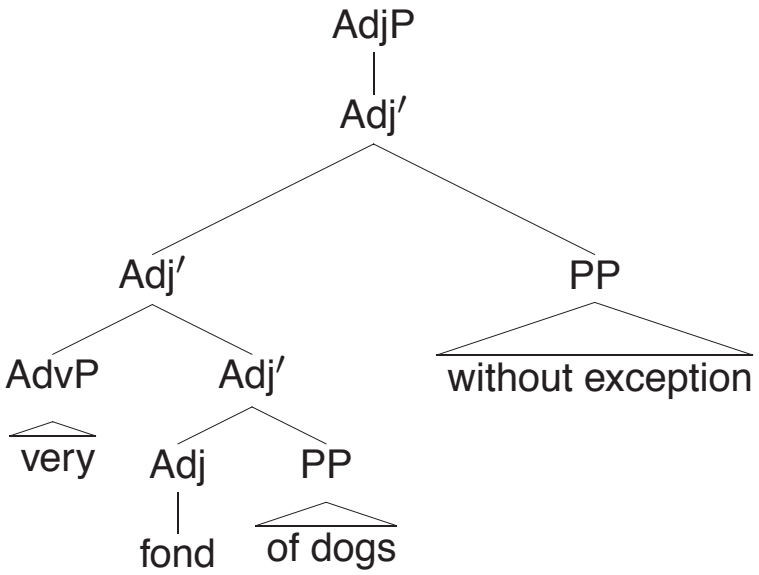
(11) a. John sings at school, and Mary does so at church.

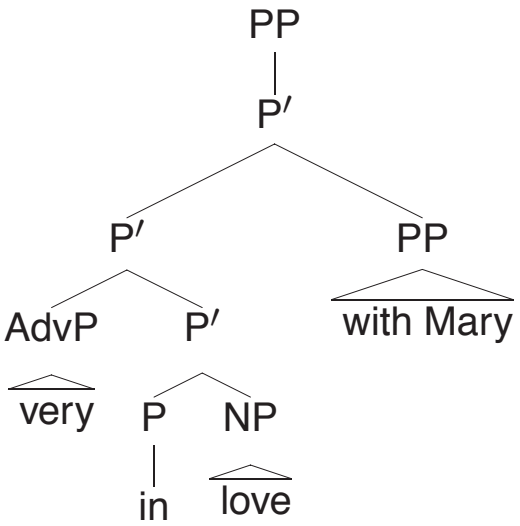
b. * John eats bananas with a fork, and Mary does so apples with a knife.

Complement/Adjunct Distinction in AdjPs and PPs

(12) a. John is very fond [of dogs] [without exception].

b. John is very in [love] [with Mary].

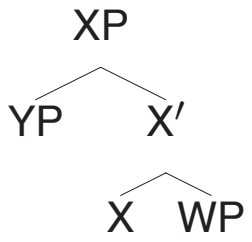




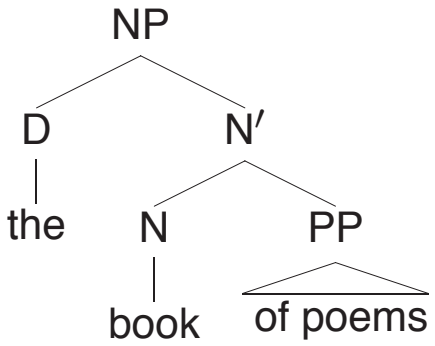
- We can apply similar tests as before: one complement, multiple adjuncts, reordering of adjuncts, and conjunction.

Specifiers

- Specifier Rule: XP $\rightarrow$ YP X′



- The only element we have seen in the specifier position so far is the determiner.



Later on, we'll argue that even determiners aren't real specifiers.

Instead, we'll argue that the specifier is where subjects are generated. Stay tuned!

- For now, just understand the X-bar theoretic definition of specifiers (sister of X′, daughter of XP), and put determiners there.

X-bar Theory and Word Order Parameter

- Korean word order

(13) a. kutul-un mokcek-ul chukwuha-yess-ta.
they-Top objective-Acc pursue-Past-Decl
'They pursued their objective.'

b. Toli-nun Suni-ka coh-ta.
Toli-Top Suni-Nom fond-Decl
'Toli is fond of Suni.'

c. pang aney
room inside
'inside the room'

d. Toli-ka ttena-ss-ta-nun sosik
Toli-Nom leave-Past-Decl-Adnom news
'the news that Toli left'

While English is predominantly head-initial, Korean is head-final. That is, complements in Korean always occur to the left of the head.

Can we use X-bar schema as introduced to parse these Korean sentences?

X-bar Theory and Word Order Parameter (cont.)

- To account for all possible word orders, we need to generalize the X-bar schema.

  Specifier Rule: XP $\rightarrow$ (YP) X$'$ *or* XP $\rightarrow$ X$'$ (YP)

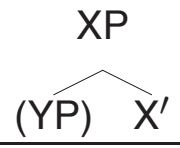
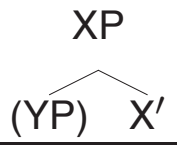
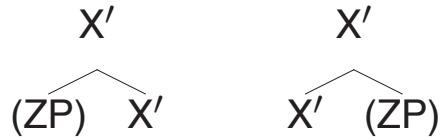
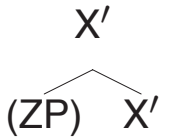
  Adjunct Rule: X$'$ $\rightarrow$ X$'$ (ZP) *or* X$'$ $\rightarrow$ (ZP) X$'$

  Complement Rule: X$'$ $\rightarrow$ X (WP) *or* X$'$ $\rightarrow$ (WP) X

- The side that specifiers/adjuncts/complements appear on can vary depending upon the language.

X-bar Theory and Word Order Parameter (cont.)

- Every speaker has the generalized X-bar theory as part of the UG principles in his mind.
- Each language only uses a subset of the options. These options are called parameters.
- When a child learns a language s/he looks for certain cues in the input data to set its parameters.

	English parameter settings	Korean parameter settings
Specifier Rule		
Adjunct Rule		
Complement Rule		