

Chapter 2: From Words to Major Phrase Types

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Introduction

- start from words (lexical categories)
- These lexical categories then form a larger constituent 'phrase'; and phrases go together to form a 'clause'.
 - (1) a. The weather is lovely today.
b. I am hoping [that the weather is lovely today].
c. [If the weather is lovely today] then we will go out.
d. The birds are singing [because the weather is lovely today].

Determining the lexical categories: by meaning

- (2) a. N: referring to an individual or entity
- b. V: referring to an action
- c. A: referring to a property
- d. Adv: referring to the manner, location, time or frequency of an action

: cf. Words like *sincerity*, *happiness*, and *pain*, *absence* and *loss*.

Determining the lexical categories: by form

- (3) a. N: ___ + plural morpheme *-(e)s*
 b. N: ___ + possessive *'s*
 c. V: ___ + past tense *-ed* or 3rd singular *-(e)s*
 d. V: ___ + 3rd singular *-(e)s*
 e. A: ___ + *-er/est* (or *more/most*)
 f. A: ___ + *-ly* (to create an adverb)
- (4) a. N: trains, actors, rooms, man's, sister's, etc.
 b. V: devoured, laughed, devours, laughs, etc.
 c. A: fuller, fullest, more careful, most careful, etc.
 d. Adv: fully, carefully, diligently, clearly, etc.
- : think about *information, furniture, love, pain, absent*, etc.

Determining the lexical categories: by distribution

- Distribution tests

- (5) a. They have no __ .
b. They can __ .
c. They read the __ book.
d. He treats John very __ .
e. He walked right __ the wall.

Determining the lexical categories: by distribution

- N, V, Adj, P
 - (6) a. They have no TV/car/information/friend.
b. They have no *went/*in/*old/*very/*and.
 - (7) a. They can sing/run/smile/stay/cry.
b. They can *happy/*down/*door/*very.
 - (8) a. They read the big/new/interesting/scientific book.
b. They read the *sing/*under/*very book.
 - (9) a. He treats John very nicely/badly/kindly.
b. He treats John very *kind/*shame/*under.
 - (10) a. He walked right into/on the wall.
b. He walked right *very/*happy/*the wall.

Some examples for basic lexical categories

- (11) a. N: TV, car, information, friend, ...
b. V: sing, run, smile, stay, cry, ...
c. A: big, new, interesting, scientific, ...
d. Adv: nicely, badly, kindly, ...
e. P: in, into, on, under, over, ...

What other categories?

- (12) a. ___ student hits the ball.
b. John sang a song, ___ Mary played the piano.
c. John thinks ___ Bill is honest.
- (13) We found out that ___ jobs were in jeopardy.

Determiners and complementizers

- (14) a. *[My these jobs] are in jeopardy.
b. *[Some my jobs] are in jeopardy.
c. *[The his jobs] are in jeopardy.
- (15) a. I think ___ learning English is not easy at all.
b. I doubt ___ you can help me in understanding this.
c. I am anxious ___ you to study English grammar hard.

Complementizers

- (16) a. I think *that* [learning English is not all that easy].
b. I doubt *if* [you can help me in understanding this].
c. I am anxious *for* [you to study English grammar hard].
- (17) a. *I think *that* [learning English to be not all that easy].
b. *I doubt *if* [you to help me in understanding this].
c. *I am anxious *for* [you should study English grammar hard].
- (18) a. I think *that* [learning English is not all that easy].
b. I doubt *if* [you can help me in understanding this].
c. I am anxious *for* [you to study English grammar hard].

Auxiliaries

- (19) a. John ___ not leave.
b. John ___ drink beer last night.
c. ___ John leave for Seoul tomorrow?
d. John will study syntax, and Mary ___, too.
- (20) a. He left.
b. He did not leave.
- (21) a. Students wanted *to* write a letter.
b. Students intended *to* surprise the teacher.
- (22) a. Students objected *to* the teacher.
b. Students sent letters *to* the teacher.

Auxiliaries

- (23) a. It is crucial for John to show an interest.
b. It is crucial that John should show an interest.
- (24) a. I know I should [go to the dentist's], but I just don't want to.
b. I don't really want to [go to the dentist's], but I know I should.
- (25) a. She thought it was likely [that everyone *to/might/would fit into the car].
b. She thought it was easy [for everyone to/*might/*would fit into the car].

Particles vs. prepositions

- Particle

- (26) a. The umpire called *off* the game.
b. The two boys looked *up* the word.

- (27) a. The umpire called the game *off*.
b. The two boys looked the word *up*.

- preposition

- (28) a. The umpire fell *off* the deck.
b. The two boys looked *up* the high stairs (from the floor).

- (29) a. *The umpire fell the deck *off*.
b. *The students looked the high stairs *up* (from the floor).

Particles vs. prepositions

- (30) a. The umpire called it *off*. (particle)
b. *The umpire called *off* it.
- (31) a. *The umpire fell it *off*.
b. The umpire fell *off* it. (preposition)

Content and function words

- (32) a. The student will take a green apple.
b. The teachers are fond of Bill.
- (33) a. *Student take green apple
b. *Teachers fond Bill.
- (34) Content words:
a. N: computer, email, fax, Internet, ...
b. A: happy, new, large, grey, tall, exciting, ...
c. V: email, grow, hold, have, run, smile, make, ...
d. Adv: really, completely, also, well, quickly, ...
- (35) a. P: of, at, in, without, between, ...
b. Det: the, a, that, my, more, much, ...
c. Conj: and, that, when, while, although, or, ...
d. Aux: can, must, will, should, ought, ...
e. C: for, whether, that, ...
f. Part: away, over, off, out, ...

Grammar with lexical categories

- sentences

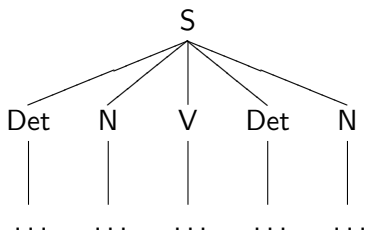
- (36)
- a. A man kicked the ball.
 - b. A tall boy threw the ball.
 - c. The cat chased the long string.
 - d. The happy student played the piano.

- Rule:

(37) $S \rightarrow \text{Det (A) N V Det (A) N}$

Grammar with lexical categories

(38)



Grammar with lexical categories

- (39) a. Det: a, that, the, this, . . .
b. N: ball, man, piano, string, student, . . .
c. V: kicked, hit, played, sang, threw, . . .
d. A: handsome, happy, kind, long, tall, . . .
- (40) a. That ball hit a student.
b. The piano played a song.
c. The piano kicked a student.
d. That ball sang a student.

Grammar with lexical categories

(41) $S \rightarrow \text{Det A}^* \text{N V Det A}^* \text{N}$

(42) a. The tall man kicked the ball.

b. The tall, handsome man kicked the ball.

c. The tall, kind, handsome man kicked the ball.

(43) The happy, happy, happy, happy, happy, happy man sang a song.

Grammar with lexical categories: Problems

- (44) a. The mother of the boy and the girl **is** arriving soon.
b. The mother of the boy and the girl **are** arriving soon.
- (45) a. [The mother of [the boy and the girl]] is arriving soon.
b. [The mother of the boy] and [the girl] are arriving soon.

Grammar with lexical categories: Problems

- (46) a. John saw the man with a telescope.
b. I like chocolate cakes and pies.
c. We need more intelligent leaders.
- (47) a. John saw [the man with a telescope].
(the man had the telescope)
b. John [[saw the man] with a telescope].
(John used the telescope)

Grammar with phrases

(48) The student enjoyed his English syntax class last semester.

(49) a. [The student] [enjoyed [his English syntax class last semester]].

b. [The] [student enjoyed] [his English syntax class] [last semester].

c. [The student] [[enjoyed his English] [syntax class last semester]].

Constituent tests

Cleft: The cleft construction, which places an emphasized or focused element in the X position in the pattern 'It is/was X that ... ', can provide us with simple evidence for the existence of phrasal units.

(50) The policeman met several young students in the park last night.

- (51) a. It was [the policeman] that met several young students in the park last night.
- b. It was [several young students] that the policeman met in the park last night.
- c. It was [in the park] that the policeman met several young students last night.
- d. It was [last night] that the policeman met several young students in the park.

Constituent tests

- (52) a. *It was [the policeman met] that several young students in the park last night.
- b. *It was [several young students in] that the policeman met the park last night.
- c. *It was [in the park last night] that the policeman met several young students.

Constituent tests

Constituent Questions and Stand-Alone Test: For any given *wh*-question, the answer can either be a full sentence or a fragment. This stand-alone fragment is a constituent:

- (53) A: Where did the policeman meet several young students?
 B: In the park.
- (54) A: Who(m) did the policeman meet in the park?
 B: Several young students.

Constituent tests

- (55) John put old books in the box.
- (56) A: What did you put in your box?
 B: Old books.
 B: *Old books in the box.
- (57) A: Where did you put the book?
 B: In the box.
 B:*Old books in the box.
- (58) A: What did you do?
 B: *Put old books.
 B: *Put in the box.
 B: Put old books in the box.

Constituent tests: preposition and particles again

- (59) a. John looked up the inside of the chimney.
 b. John looked up the meaning of 'chanson'.
- (60) A: What did he look up?
 B: The inside of the chimney.
 B: The meaning of 'chanson'.
- (61) A: Where did he look?
 B: Up the inside of the chimney.
 B:*Up the meaning of 'chanson'.
- (62) A: Up what did he look?
 B: The inside of the chimney.
 B: *The meaning of 'chanson'.

Constituent tests

Substitution by a Pronoun: English, like most languages, has a system for referring back to individuals or entities mentioned by the use of pronouns.

- (63) a. What do you think the man who is standing by the door is doing now?
 b. What do you think *he* is doing now?
- (64) a. Have you been [to Seoul]? I have never been *there*.
 b. John might [go home], *so* might Bill.
 c. John might [pass the exam], and *as* might Bill.
 d. If John can [speak French fluently] – *which* we all know he can – we will have no problems.

Constituent tests

- (65) a. John asked me to put the clothes in the cupboard, and to annoy him I really stuffed *there* [there=in the cupboard].
- b. John asked me to put the clothes in the cupboard, and to annoy him I stuffed *them there* [them=the clothes].
- c. *John asked me to put the clothes in the cupboard, but I did *so* [=put the clothes] in the suitcase.

Constituent tests

- Words and phrases can be coordinated by *conjunctions*, and each conjunct is typically the same kind of constituent as the other conjuncts:
 - (66) a. The girls [played in the water] and [swam under the bridge].
 - b. The children were neither [in their rooms] nor [on the porch].
 - c. She was [poor] but [quite happy].
 - d. Many people drink [beer] or [wine].
 - (67) a. *Mary waited [for the bus] and [to go home].
 - b. *Lee went [to the store] and [crazy].

NP

- template

(68) ___ [liked ice cream].

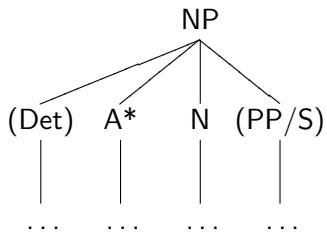
- NPs

(69) Mary, I, you, students, the students, the tall students, the students from Seoul, the students who came from Seoul, etc.

(70) NP \rightarrow (Det) A* N (PP/S)

NP

(71)



(72) *the whistle tune, *the easily student, *the my dog, ...

VP

- template

(73) The student ___ .

(74) snored, ran, sang, loved music, walked the dog through the park, lifted 50 pounds, thought Tom is honest, warned us that storms were coming, etc.

(75) $VP \rightarrow V (NP) (PP/S)$

(76) *leave the meeting sing, *the leave meeting, *leave on time the meeting, ...

VP

• Tensed VP

(77) a. The monkey wants to leave the meeting.

b. *The monkey eager to leave the meeting.

(78) a. The monkeys approved of their leader.

b. *The monkeys proud of their leader.

(79) a. The men practice medicine.

b. *The men doctors of medicine.

(80) $S \rightarrow NP VP$

VP: auxiliary

- template

(81) a. The students ___ .

b. The students want ___ .

(82) a. run, feel happy, study English syntax, ...

b. can run, will feel happy, must study English syntax, ...

c. to run, to feel happy, to study English syntax, ...

- VP rule

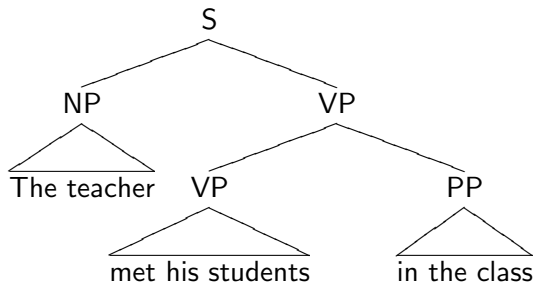
(83) $VP \rightarrow V[AUX +] VP$

VP with a modifier

- (84) a. John [[read the book] loudly].
 b. The teacher [[met his students] in the class].

(85) $VP \rightarrow VP \text{ Adv/PP}$

(86)



AP

- (87) John feels ___ .
- (88) happy, uncomfortable, terrified, sad, proud of her, proud to be his student, proud that he passed the exam, etc.
- (89) $AP \rightarrow A (PP/VP/S)$

AP

- (90) a. John sounded happy/uncomfortable/terrified/proud of her.
b. John sounded *happily/*very/*the student/*in the park.
- (91) a. *The monkeys seem [want to leave the meeting].
b. The monkeys seem [eager to leave the meeting].
- (92) a. *John seems [know about the bananas].
b. John seems [certain about the bananas].

AdvP

- (93) soundly, well, clearly, extremely, carefully, very soundly, almost certainly, very slowly, etc.
- (94) a. He behaved very __ .
b. They worded the sentence very __ .
c. He treated her very __ .
- (95) AdvP → (AdvP) Adv

PP

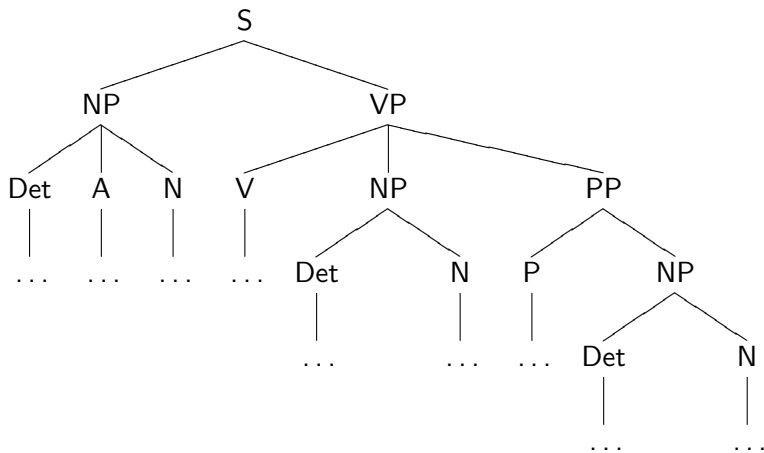
- (96) from Seoul, in the box, in the hotel, into the soup, with John and his dog, under the table, etc.
- (97) a. John came from Seoul.
 b. They put the book in the box.
 c. They stayed in the hotel.
 d. The fly fell into the soup.
- (98) The squirrel ran straight/right __ .
- (99) a. The squirrel ran straight/right up the tree.
 b. *The squirrel is straight/right angry.
 c. *The squirrel ran straight/right quickly.
- (100) PP → P NP
- (101) *in angry, *into sing a song, *with happily, ...

PS rules

- (102) a. $S \rightarrow NP VP$
b. $NP \rightarrow (Det) A^* N (PP/S)$
c. $VP \rightarrow V (NP) (PP/S/VP)$
d. $AP \rightarrow A (PP/S)$
e. $AdvP \rightarrow (AdvP) Adv$
f. $PP \rightarrow P NP$

From PS rules to tree structures

(103)



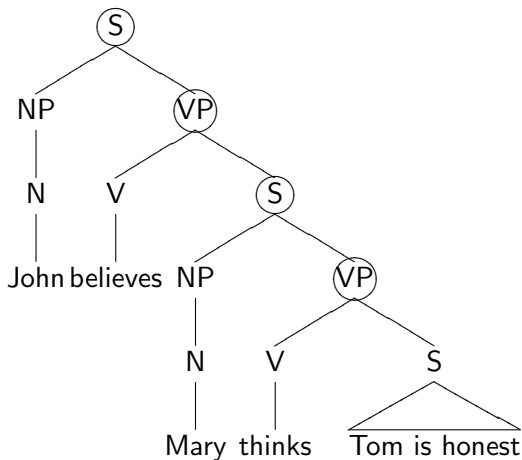
Lexicon and Generated outputs

- (104) a. Det: a, an, this, that, any, some, which, his, her, no, etc.
 b. A: handsome, tall, fat, large, dirty, big, yellow, etc.
 c. N: book, ball, hat, friend, dog, cat, man, woman, John, etc.
 d. V: kicked, chased, sang, met, believed, thinks, imagines, assumes etc.
- (105) a. This handsome man chased a dog.
 b. A man kicked that ball.
 c. That tall woman chased a cat.
 d. His friend kicked a ball.

Generating an infinite number of sentences: recursiveness

(106) a. $S \rightarrow NP VP$ b. $VP \rightarrow V S$

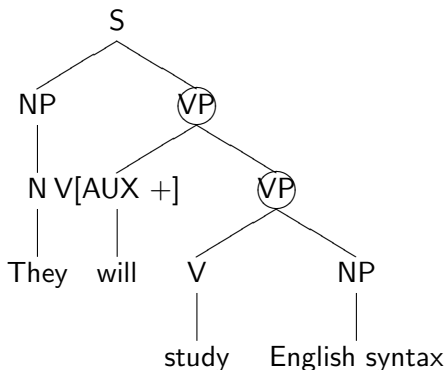
(107)



Recursive examples

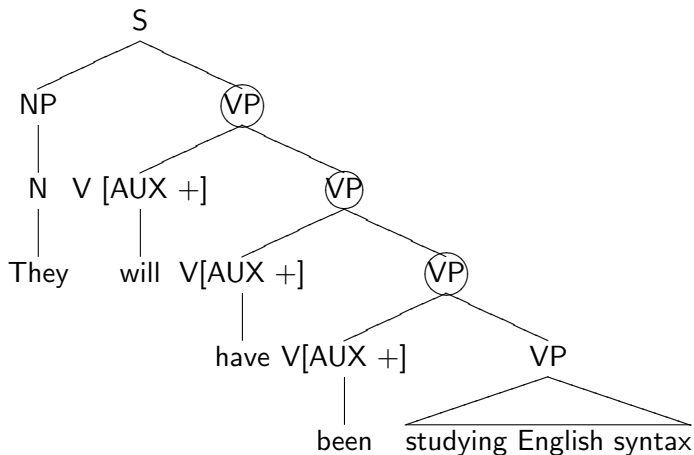
- (108) a. Bill claims John believes Mary thinks Tom is honest.
 b. Jane imagines Bill claims John believes Mary thinks Tom is honest.

(109)



Recursive Aux

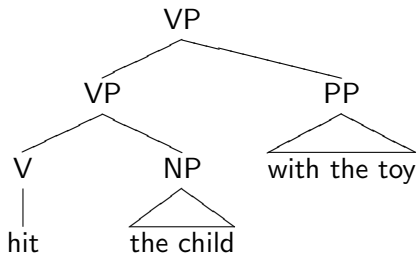
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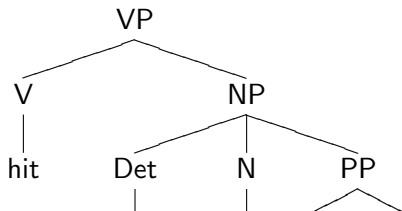
hierarchical structure: solving ambiguity

- (111) a. The little boy hit the child with a toy.
 b. Chocolate cakes and pies are my favorite desserts.

(112) a.



b.



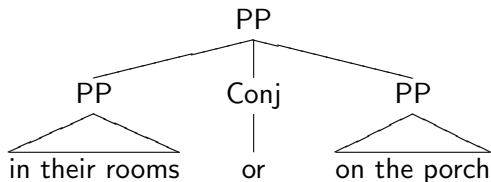
Coordination

(113) a. *The children were in their rooms or happy.

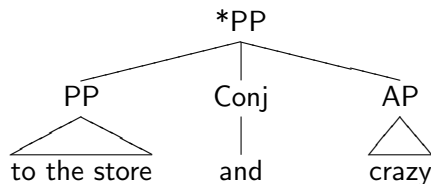
b. *Lee went to the store and crazy.

(114) $XP \rightarrow XP^* \text{ Conj } XP$

(115) a.



b.

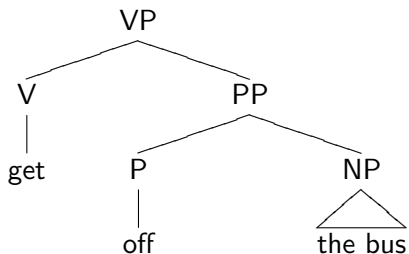


Preposition vs. particle

- (116) a. John suddenly got *off* the bus.
 b. John suddenly put *off* the customers.
- (117) a. *John suddenly got the bus off.
 b. John suddenly put the customers off.
- (118) VP → V (Part) (NP) (Part) PP

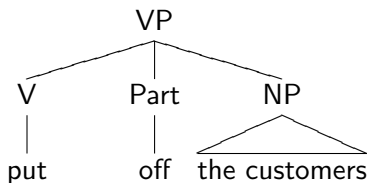
Particle vs. Preposition

(119)



Particle vs. Preposition

(120) a.



b.

