

## Chapter 7. The grammar of sentences: slots and phrases

### Exercise 7.1

Consider the following sentence:

*The weather is quite predictable in Singapore.*

Now recall the two constituency tests that you are familiar with (refer to pp. 150-151 in the textbook). Can both tests be used to show that the underlined string in this sentence is a constituent? If so, explain how. If not, explain why not.

### Exercise 7.2

Consider the following data:

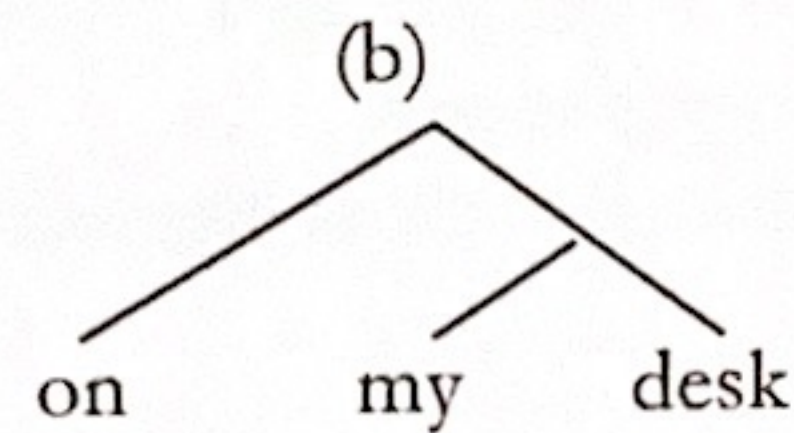
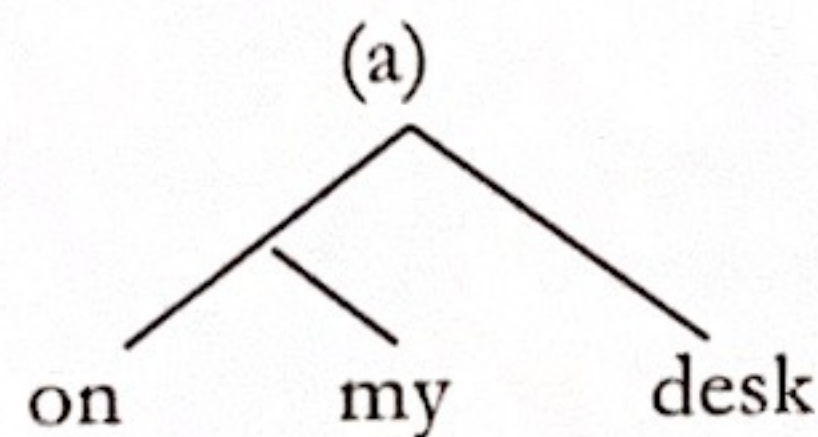
- a. *Sam placed the books on the shelf near the window.*
- b. *On the shelf near the window, Sam placed the books.*

- The movement test for constituency states that only single units can be moved from their default position to a non-default position. This being so, what do the data above show?
- Based on your answer to (1), how would you draw the phrase-structure tree for sentence (a)? Explain your answer.

### Exercise 7.3

Below are two tree diagrams giving alternative structures for the phrase *on my desk*.

Taking into consideration the constructs 'head' and 'modifier', choose the diagram that best describes the internal structure of the phrase. Explain your answer.



### Exercise 7.4

Are the following statements true or false? Tick the appropriate cell.

	True	False
1. A well-formed phrase can contain only modifiers.		
2. A well-formed phrase must contain at least one modifier.		
3. Heads of phrases must have lexical meaning.		
4. Modifiers always add grammatical meaning to their phrase.		
5. A verb can occur alone in a verb phrase.		
6. The NP <i>That woman</i> is ungrammatical because it contains no adjective.		
7. A phrase can consist of a noun head and a noun modifier.		
8. A phrase can consist of an adverb head and an adverb modifier.		

### Exercise 7.5

- Propose a label for the coordinated syntactic constituents in each of the following sentences.
  - Ali is moody but very reliable.
  - You may submit your proposal to me or my secretary.
  - Please switch off your mobile phones in class and during all tests.
  - I like science-fiction novels but my friend despises them.
  - This laptop guarantee covers reasonable wear and tear.
  - The horse snorted heavily and pawed the ground.
- Now draw a diagram for the coordinated constituents that you identified in each sentence.

### Exercise 7.6

Consider the rule  $PP \rightarrow P (\text{Det}) \text{Adj}^* N$

Choose the sentence(s) in which all the phrases described by this rule match the rule.

- Some babies crawl on their stomach.
- Smoking is not allowed indoors.
- The best thing on a hot day is a long cold drink of juice.
- This software was designed to work in a user-friendly manner.
- She walks to work even on rainy days.
- My garden was in full bloom before the holidays started.

### Exercise 7.7

Find, or construct, two sentences containing noun phrases in a language other than English.

Then, analyse the internal structure of those noun phrases.

Is it legitimate to call a noun phrase a “noun phrase”, across languages? Why?

### Exercise 7.8

Propose a rule, in words or in rule notation, which describes the verb phrases in all the following sentences.

*The clothes in the closet felt damp.*

*She leaves today.*

*Mosquito bites itch.*

*This cheese turned mouldy very quickly.*

*Our overseas sales increased significantly.*

### Exercise 7.9

Choose the sentence(s) in which the underlined sequences form constituents.

- She saw my cousin's cat on the back of a truck at the junction of Garden Road and Park Avenue.
- She saw my cousin's cat on the back of a truck at the junction of Garden Road and Park Avenue.
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### Exercise 7.10

Consider the following phrase structure grammar:

$S \rightarrow NP VP$

$NP \rightarrow Det (Adj) N (PP)$

$PP \rightarrow P NP$

$VP \rightarrow V (NP)$

Indicate the sentence(s) that this grammar describes.

- a. My friends like fish-head curry.
- b. Their boyfriends hate it.
- c. Those people spend a fortune on their food.
- d. This restaurant serves a delicious treat on weekends.
- e. The girl in the red dress eats a lot.
- f. Her favourite meal is oysters with lemon.

### Exercise 7.11

1. Propose a grammar, in rule notation, that accounts only for the two sentences below.

*Many Westerners enjoy our spicy food.*

*I love you.*

**Hint:** Start by identifying the word class of every word in each sentence, then work out which word classes are optional in each phrase.

2. Indicate which of the following sentences are grammatical according to the grammar that you proposed. Explain your answer.

a. *This is it.*

b. *Small children dislike chocolate ice-cream.*

c. *He has a headache.*

d. *These new ideas sound promising.*

3. Now revise the grammar that you proposed in (1), so that it describes all the sentences in (1) and (2).

### Exercise 7.12

Consider the rule:  $NP \rightarrow (Det) Adj N (PP)$

Choose the sentences in which all the relevant constituents are generated by this rule.

- a. The friendly people from that small village are excellent athletes.
- b. Those hot-headed boys have taken up street fighting.
- c. This elegant lady ordered these sandwiches for us.
- d. Our new neighbours are extremely friendly.
- e. My younger sister is a great fan of that famous rock-star.
- f. The band from Nagasaki is currently working on a new album.
- g. My best friend considers Sam a musical revolutionary.
- h. That amazingly-gifted tribesman married a beautiful bride and lived happily.

### Exercise 7.13

Syntactic phrases are named after their head constituents. Propose a phrasal label for the underlined constituents in the following sentences (you can use abbreviations):

1. Queue up right here for your free gifts. \_\_\_\_\_
2. Sam sent me a birthday card. \_\_\_\_\_
3. Luckily, the floods caused no casualties. \_\_\_\_\_
4. We found termites inside the walls and under the floor. \_\_\_\_\_
5. Milk contains calcium. \_\_\_\_\_
6. The man in the blue suit is our boss. \_\_\_\_\_
7. I know someone who can help you. \_\_\_\_\_
8. The water was surprisingly cold. \_\_\_\_\_
9. Bee stings hurt. \_\_\_\_\_
10. She looked very pale but composed. \_\_\_\_\_

### Exercise 7.14

Is the underlined string of words in this sentence a single constituent? Why?

*There's a frog on a log in a hole at the bottom of the sea.*

### Exercise 7.15

Consider the PS rule:  $VP \rightarrow V \{NP, PP, S\}$

Choose the sentence(s) in which the VP does not follow the rule.

- a. Jane likes talkative men and quiet women.
- b. Samantha bought a new handbag for her mother.
- c. Henry shoved the soiled bed linen into the broom cupboard.
- d. Rona and Ryan will be going to the party.
- e. Brenda painted her room a pale shade of green.
- f. Ivy heard that Jonas received the top mark.
- g. Thumper and Bambi are playing.
- h. Mary and Martha are best friends.
- i. Carina and her sister reside in California.
- j. Table soccer is a fun game.

### Exercise 7.16

The following rule was introduced in Chapter 7 of the textbook:

$$NP \rightarrow \left[ \begin{array}{c} (\text{Det}) (\text{Adj})^* N \\ \text{Pr} \end{array} \right]$$

Give all the noun phrases that are generated by this rule. Explain any difficulties that you may encounter in this task.

### Exercise 7.17

Choose the PS rule(s) that account(s) for the verb phrases in all three sentences below.

Jonathan swam for an hour.

Jamie walked to the church in the rain at midnight.

Jennifer groaned inwardly.

- |    |                                   |    |                                   |
|----|-----------------------------------|----|-----------------------------------|
| a. | $VP \rightarrow V PP AdvP$        | b. | $VP \rightarrow V \{PP, AdvP\}$   |
| c. | $VP \rightarrow V \{(PP, AdvP)\}$ | d. | $VP \rightarrow V \{PP^*, AdvP\}$ |

### Exercise 7.18

Given the following grammar:

$S \rightarrow NP VP$   
 $NP \rightarrow Adj^* N$   
 $VP \rightarrow V Adv^*$

Choose the sentence(s) that this grammar generates:

- Happy old people are very lucky.
- Tropical blooms grow quickly.
- Regular joggers lose weight sensibly.
- Fake jewellery breaks too easily.
- Small red centipedes bite really painfully.
- Most goldfish eat noisily.

### Exercise 7.19

In Chapter 7 of the textbook, we defined coordinating conjunctions as a word class that links constituents of the same syntactic type.

Given the following data, indicate which type of constituent is linked in each of the sentences.

- This restaurant serves only vegetables or fish. \_\_\_\_\_
- I came, I saw and I won. \_\_\_\_\_
- The cat ran through the door and out the window. \_\_\_\_\_
- I have a cat but my friend has two. \_\_\_\_\_

### Exercise 7.20

This sentence is syntactically ambiguous.

*She was playing drums with kitchen spoons and brushes.*

- Which constituent causes the ambiguity? Why?
- Draw two tree diagrams showing the alternative structures of this constituent that explain the ambiguity.

### Exercise 7.21

A phrase-structure tree represents different kinds of information about syntactic structure, namely:

- (a) information about constituency;
- (b) information about word/constituent order; and
- (c) information about syntactic hierarchy.

Draw or choose two to three PS trees from the textbook, which represent each of the types of information above.

### Exercise 7.22

Give a rule, in words or in rule notation, that describes the verb phrases in the following data:

*The baby is in a bad mood, because she gets restless when she travels by car.*

*Boy scouts eat their dinner by the fire, and they love it.*

### Exercise 7.23

Choose the sentences in which the underlined word sequences form one constituent.

- (a) Linguistics students borrow more books from the central library during term.
- (b) Linguistics students borrow more books from the central library during term.
- (c) Linguistics students borrow more books from the central library during term.
- (d) Linguistics students borrow more books from the central library during term.
- (e) Linguistics students borrow more books from the central library during term.
- (f) Linguistics students borrow more books from the central library during term.

### Exercise 7.24

The IT department of a company, asked to investigate the causes of disruption to internet services, sent the following email to all staff:

*Our initial finding shows that the server load is exceptionally high and an increase in user activities.*

Would you say that the text of this email is syntactically odd? Why?

### Exercise 7.25

Consider the following grammar:

Rule 1:  $Z \rightarrow A(B)$

Rule 2:  $A \rightarrow C(D^*)$

Rule 3:  $B \rightarrow WY$

1. Choose the strings which are grammatical, according to this grammar:

- (a) AAW
- (b) CDDY
- (c) CBBA
- (d) CDWY
- (e) CWY
- (f) AWY

2. Give two more examples of grammatical strings described by this grammar, and two more examples of ungrammatical strings. Explain your reasoning.

### Exercise 7.26

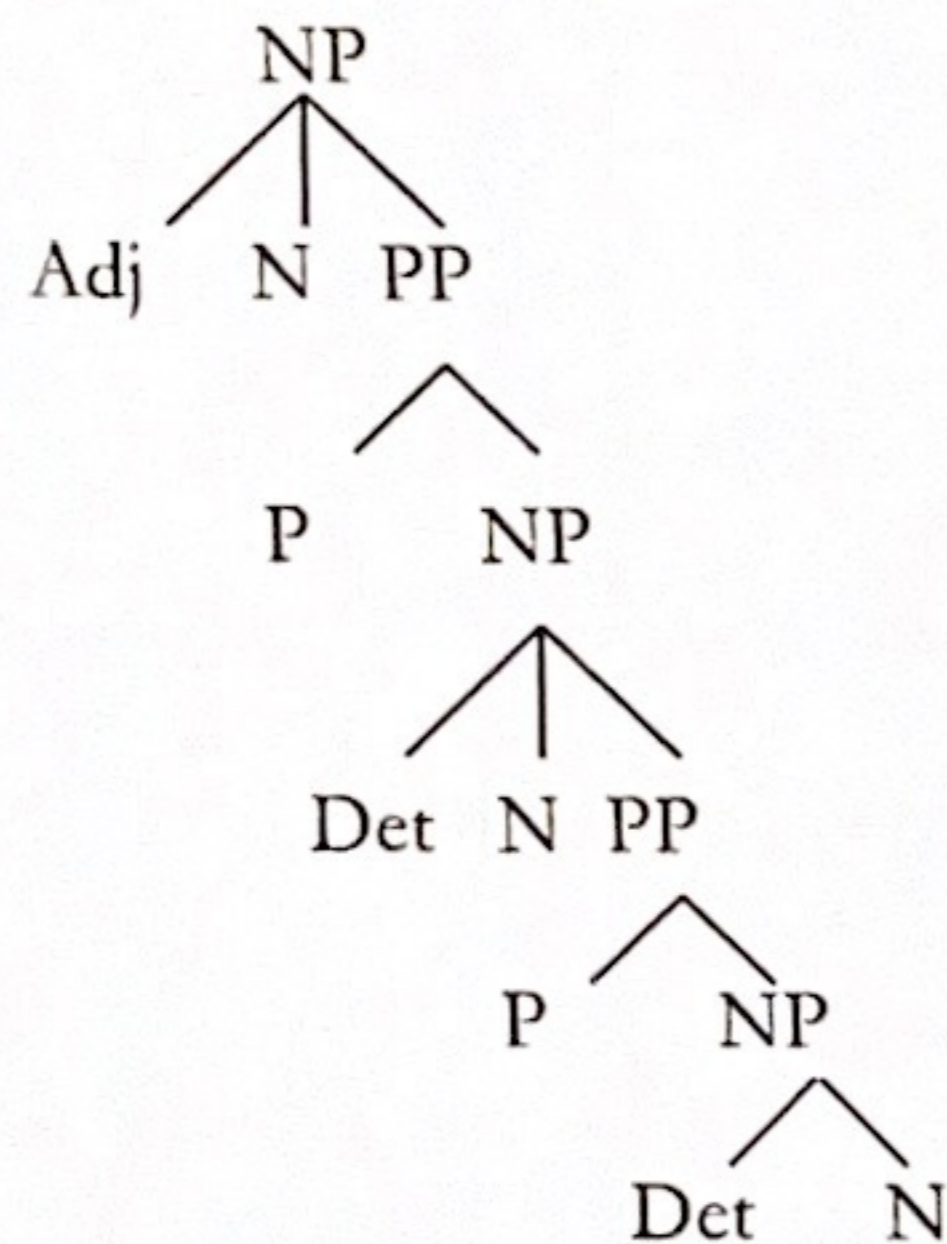
1. Propose one syntactic label for the underlined constituent in the sentence:

*He played it well but quite loudly.*

2. Use one of the constituency tests that you are familiar with, to explain your choice of label for this constituent.

### Exercise 7.27

Consider the following tree structure:



1. Find one phrase which fits this NP tree.
2. Which property of language does the tree represent? State the PS rules for the tree structure above, which highlight this property.

### Exercise 7.28

Consider the noun phrases in the following sentences.

*My psychiatrist hates his cat.*

*Our linguistics students wish the summer holidays were longer.*

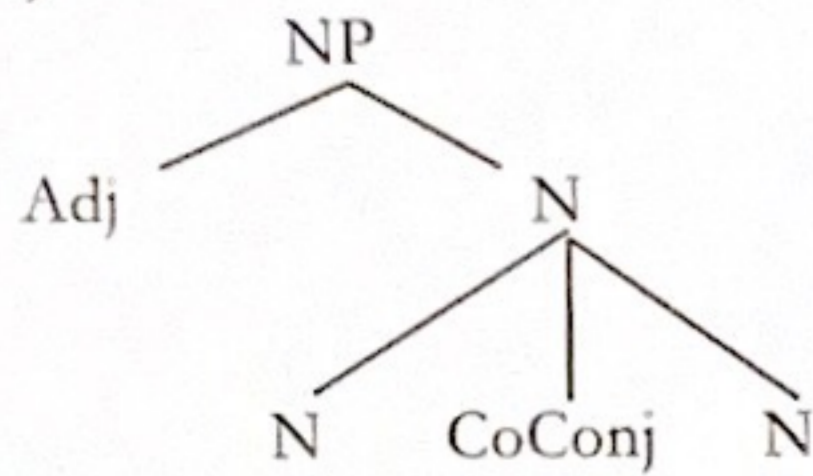
*This neighbourhood is quite friendly.*

1. Construct a PS rule which accounts for all the noun phrases in these sentences, and explain your answer.
2. Find, or construct, two sentences containing noun phrases that are not accounted for by your rule, and explain why the rule fails to account for them.
3. Find, or construct, sentences containing noun phrases, in a language other than English, and propose an NP rule for those sentences. In what ways is this rule different from/similar to the rule you gave in 1?

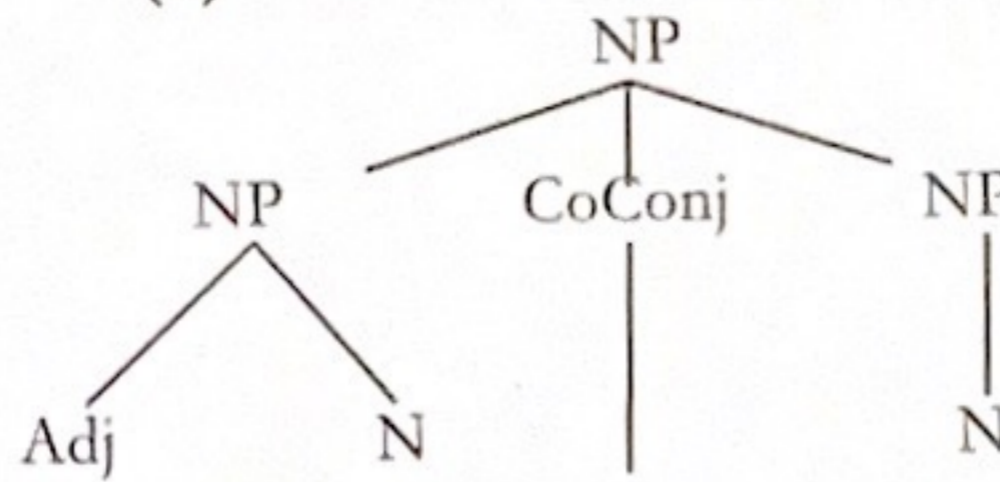
### Exercise 7.29

Given the two tree diagrams below:

(a)



(b)



1. Which one would you choose as best representing the structure of the phrase *old men and women*? Why?
2. Which one would you select for the phrase *four-wheeled vehicles and pedestrians*? Why?

### Exercise 7.30

Consider the PS grammar below, with rules numbered for ease of reference:

1.  $S \rightarrow NP VP$
2.  $NP \rightarrow (\{Adj, N\}) N (PP)$
3.  $VP \rightarrow V (NP)$

This grammar does not account for all of these sentences:

- (a) *Rumours about internet scams abound.*
- (b) *Members of Parliament approved controversial legislation.*
- (c) *Reports indicate computer technology creates jobs.*
- (d) *Mosquitoes bite.*

Which PS rule(s) do you need to amend so that the grammar accounts for all of the above sentences? Give the amended rule(s), and explain your answer.

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