Lectures 8, 9, 10 & 11 Constructions & Constituents

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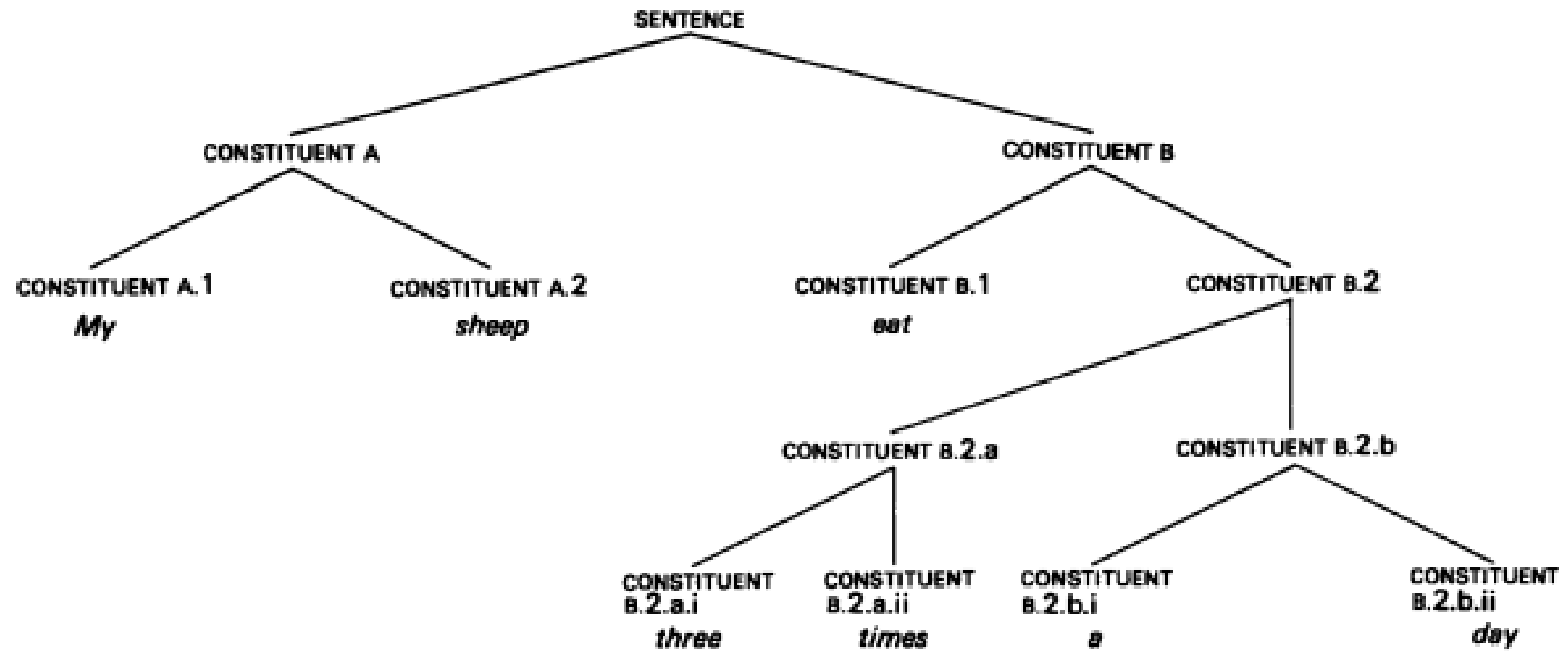
LNG 103 Morphology & Syntax

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[Slides based primarily on Chapter 6 of Allerton (2016)]

Immediate Constituent & Ultimate Constituent

- Break down a sentence stage by stage.

- First break a sentence down to its immediate constituents, then those constituents into their immediate constituents, and so on until the ultimate constituents, morphemes, ae reached.

- An ultimate constituent is thus simply a special kind of immediate constituent, viz. one that cannot be analysed any further.

SENTENCE

CONSTITUENT A

CONSTITUENT A.1
My

CONSTITUENT A.2
sheep

CONSTITUENT B

CONSTITUENT B.1
eat

CONSTITUENT B.2

CONSTITUENT B.2.a

CONSTITUENT B.2.b

CONSTITUENT
B.2.a.i
three

CONSTITUENT
B.2.a.ii
times

CONSTITUENT
B.2.b.i
a

CONSTITUENT
B.2.b.ii
day

or, more simply:

SENTENCE

My   sheep   eat   three   times   a   day
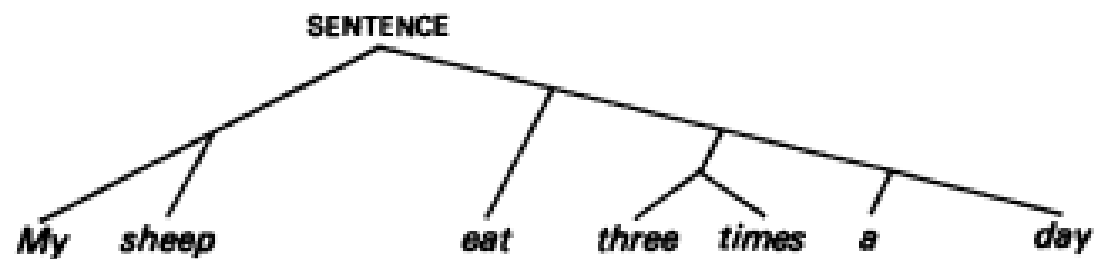
Figure 31

My sheep eat three times a day

The girl drove the blue car yesterday

Anita   gave   Meher   a fountain   pen   for   her   birthday

Freedom of occurrence as a marker of constituency

- This refers to the ability of a potential construction to appear in a wide range of different contexts.

- *Three times a day* occurs more commonly than *eat three times a day* - *My sheep* occurs more commonly than *sheep eat*

- But *my sheep* occurs more frequently/has greater freedom of occurrence than *sheep eat*?

Lack of precision in the "freedom of occurrence" theory

"We are supposed to gauge the variety of different contexts in which a sequence may occur, but it is never made clear what counts as a difference of context-a difference in lexical item, a difference in word-class, a difference in structure, or whatever else."

Establishment of constructions: The constituency tests

1. Modification
2. Movement = Allerton's **Transposition/Permutation**
3. Replacement = Allerton's **Reduction**
4. Ellipsis
5. Stand-Alone Test
6. Conjunction
7. **Omission**

Reduction

- *my* + *sheep* can be reduced to *they/them* (causes no change in value of the rest of the sentence

- *eat* + *three times a day* can be reduced to *overeat/gorge/starve*

But

- *A day* cannot really be reduced to *once* since once has two morphemes in it (*one* and *–ce*)

Omission

- You can instead omit *a day*

My sheep eat three times a day.
My sheep eat three times.   [omitting *a day*]

but the following are impossible:

*My sheep eat three times a.   [omitting *day* alone]
*My sheep eat three times day.   [omitting *a* alone]

Consider further reduction as follows:

My sheep eat three times.
My sheep eat.   [omitting *three times*]

but the following are impossible:

*My sheep eat three.   [omitting *times* – only possible
                                  with a new meaning for *three*]
*My sheep eat times.   [omitting *three*]

Transposition

- Three times a day can be transposed as a unit to the initial position of the sentence.

My sheep eat **three times a day**

= Three times a day, my sheep eat.

Adverbial phrases are the easiest to transpose

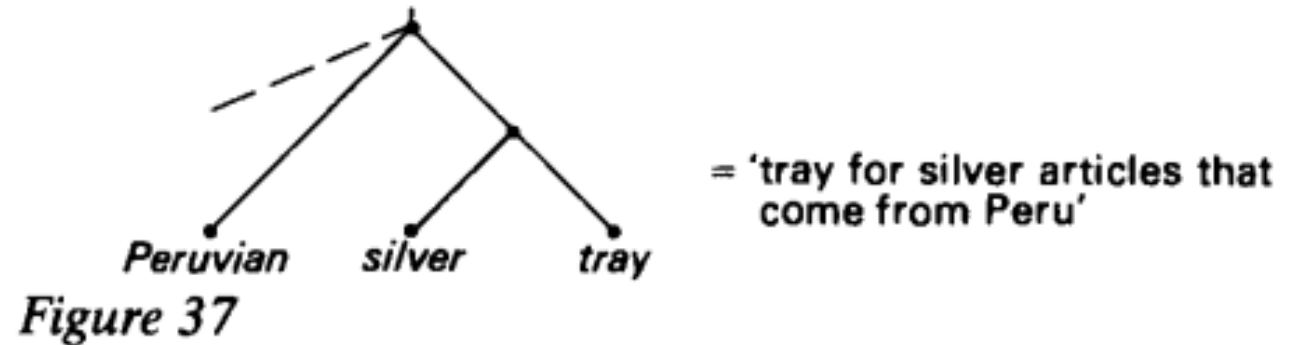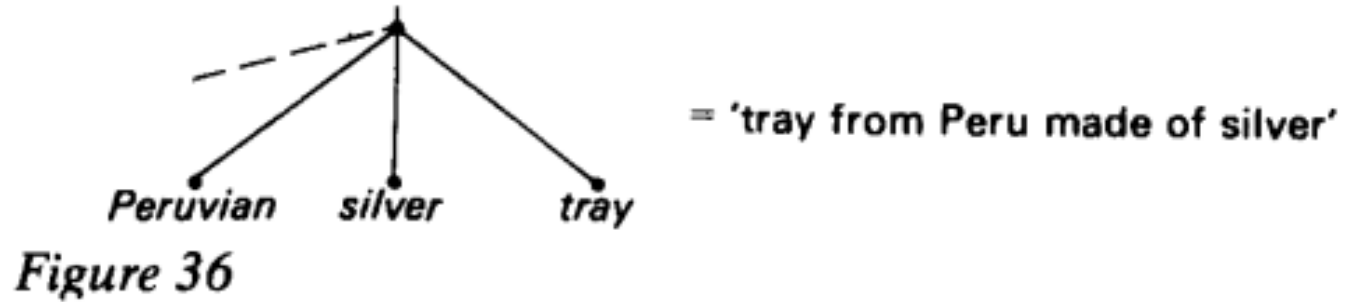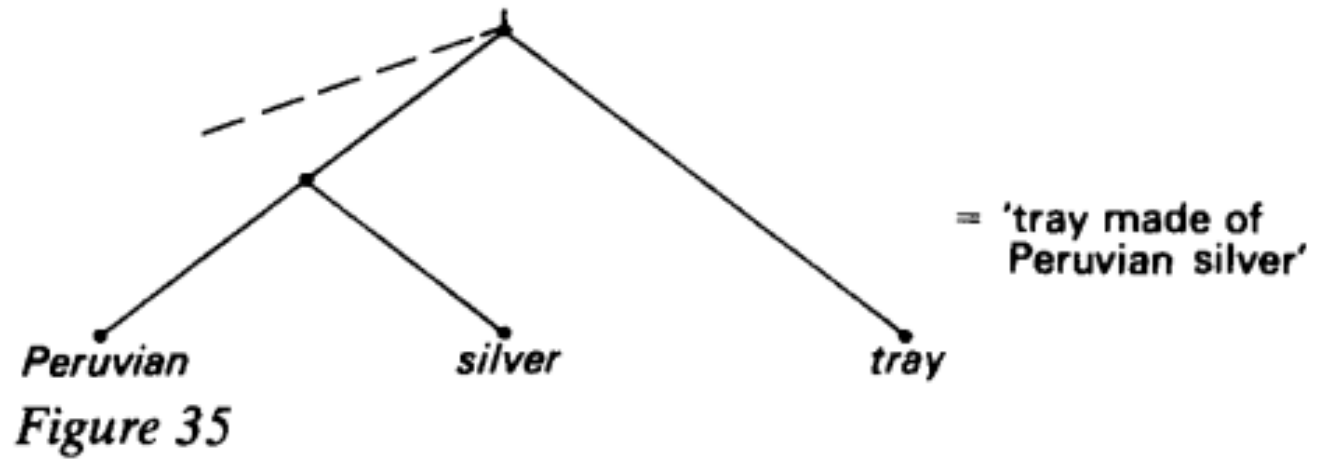# Syntactic Ambiguity

Recognizing syntactic differences

Different internal make-up of constituents

- This happens when a set of words mean can mean more than one thing i.e. it is ambiguous.

- An ambiguous sentence simply means that it has two or more meanings, each of which is valid in a some given context.

Three factors contributing to syntactic ambiguity

1) The domain of constructions ("bracketing")

2) The classes of constituent in the construction ("labelling")

3) The relationship between the constituents ("function")

Bracketing

= 'tray made of Peruvian silver'

Figure 35

= 'tray from Peru made of silver'
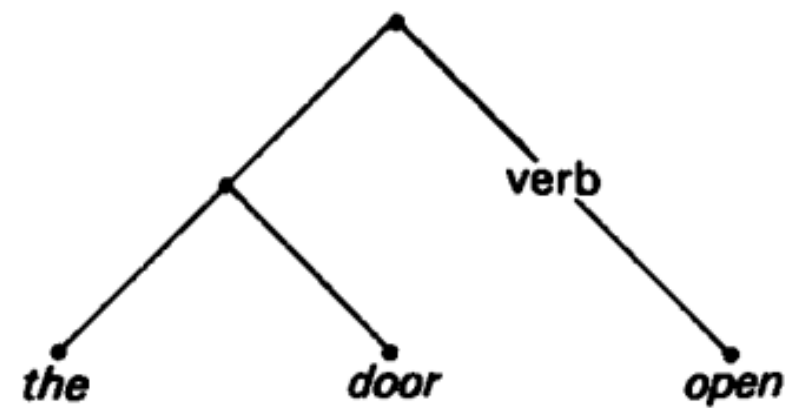
Figure 36

= 'tray for silver articles that come from Peru'
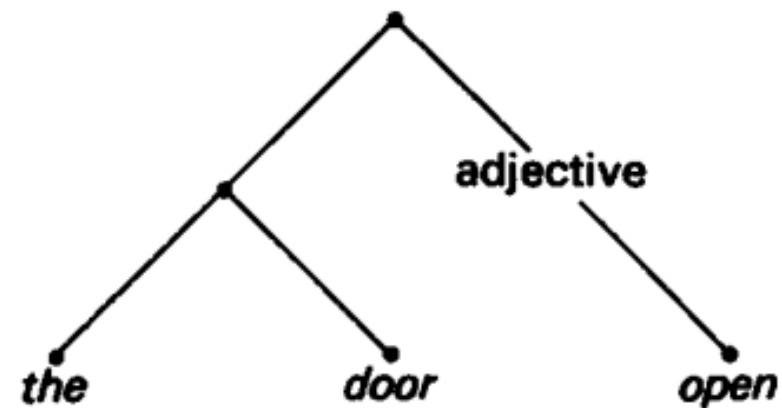
Figure 37
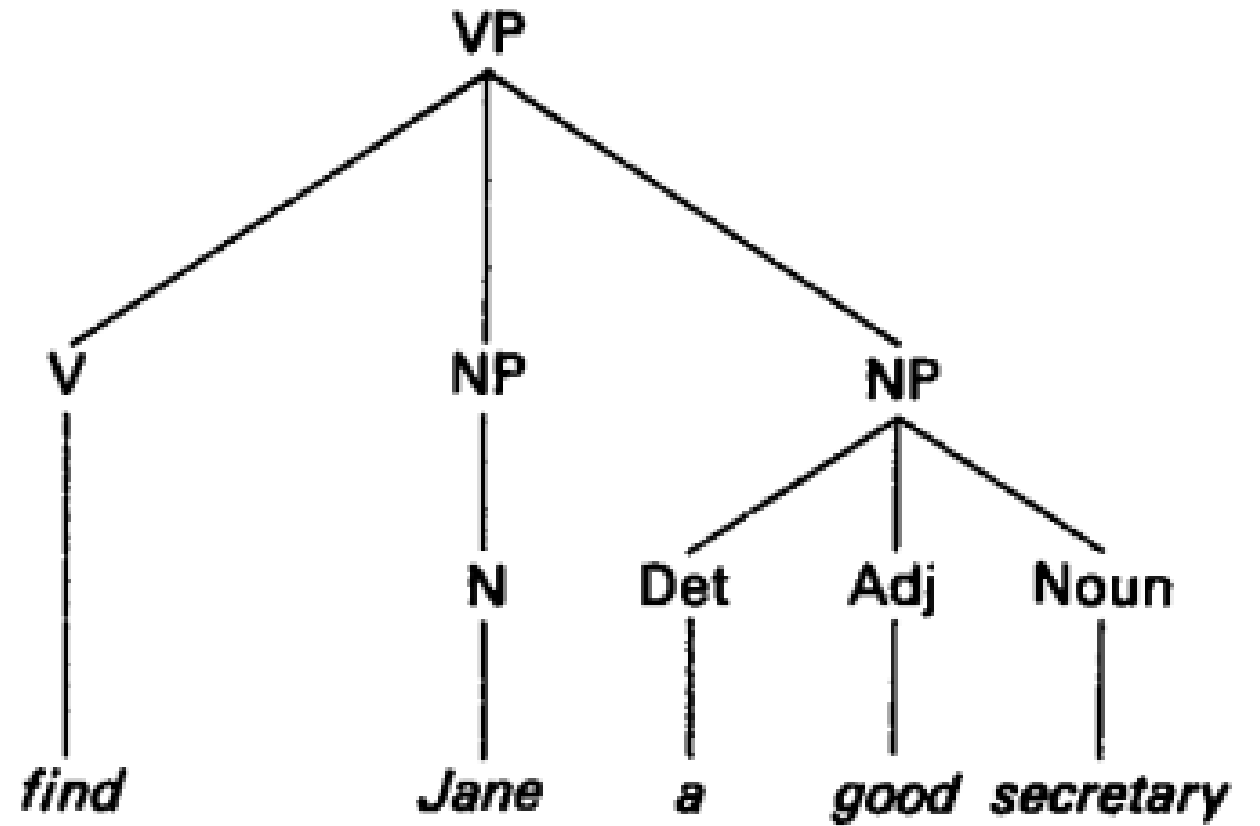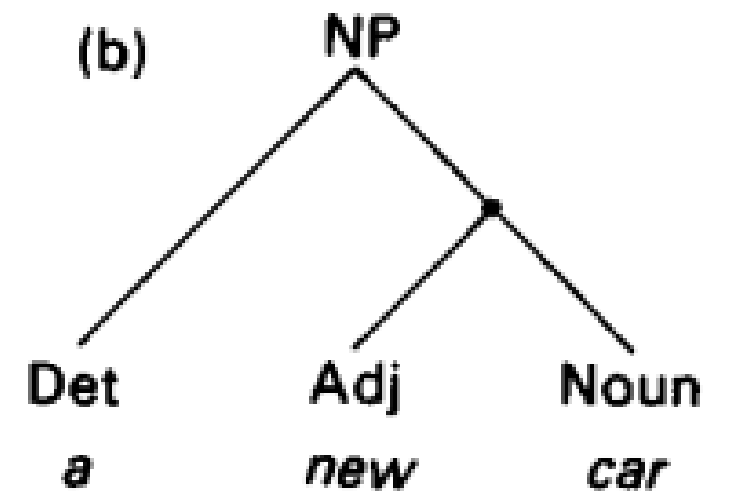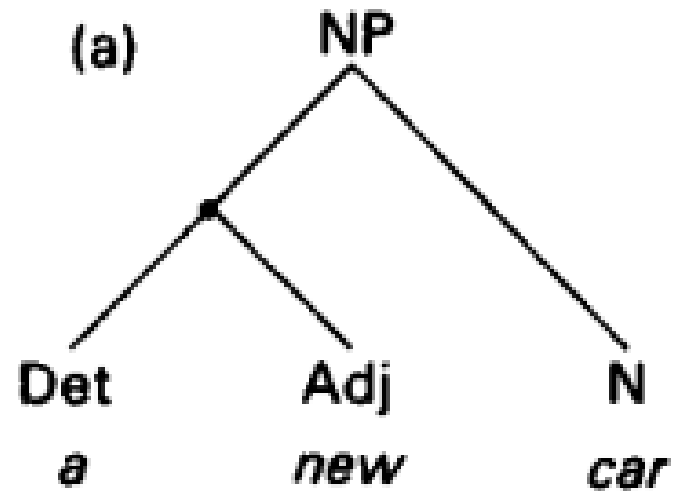
Labelling

Figure 38

Function
(i.e. meaning)

Figure 39
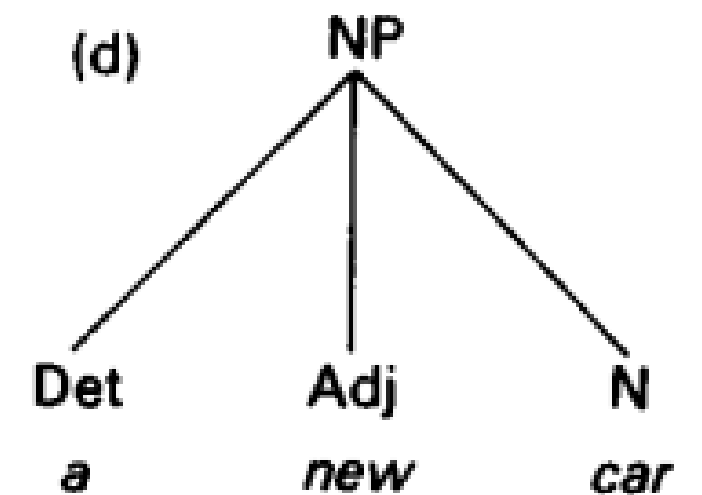
Choosing between constituent analyses

a new car

Figure 40

A new car

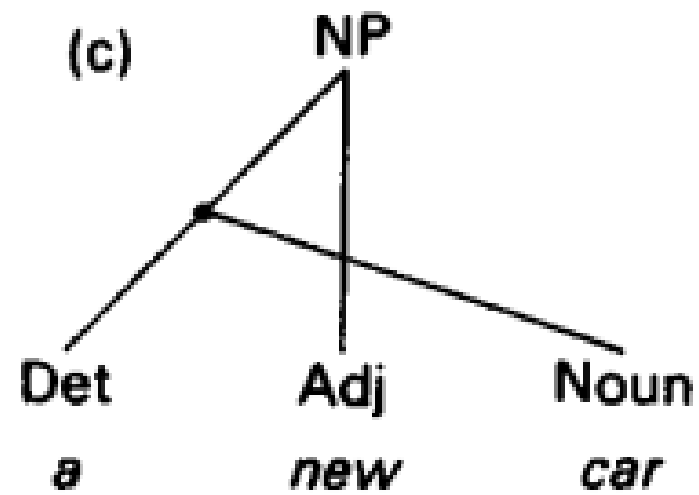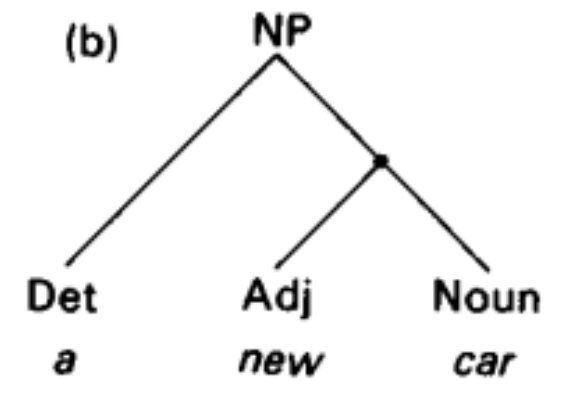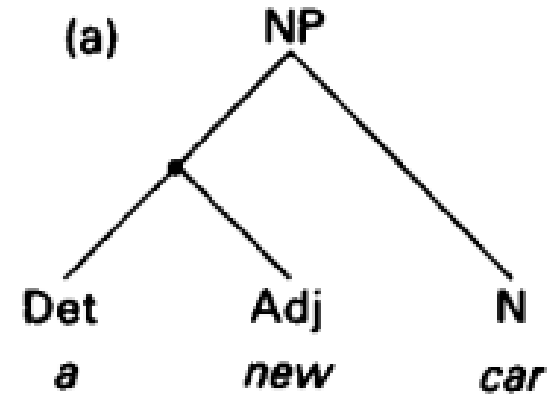(a) NP → Det (a) | Adj (new) | N (car)
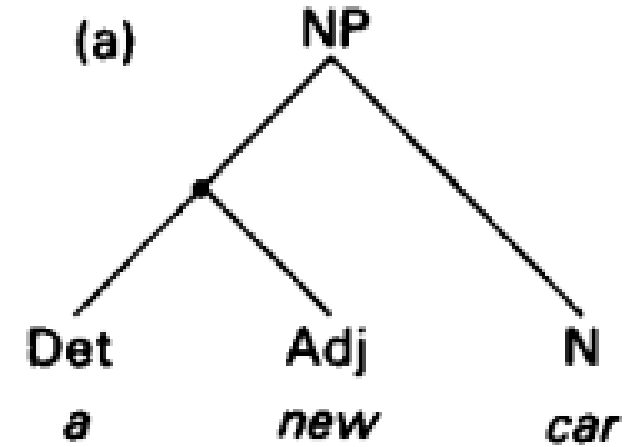
(b) NP → Det (a) | Adj (new) | Noun (car)

- Both based in the reducibility of *a new car* to *a car*
- Differ in which subpart reduces to a single element

(1) a new → a   [Figure (a)]
(2) new car → car   [Figure (b)]

New is omissible.

Our choice of analysis will depend on other evidence.

A new car

(a) NP

Det — a
Adj — new
N — car

- **Arguing for (a)** would be based on semantic considerations i.e. the contributions to the meaning of the noun phrase that the three elements make.

(1) *car* is the semantic centre

(2) *a* and *new* should be grouped together as modifiers.

The fact that two elements have a similar relationship to a third is not, however, a strong argument; and, in any case, they do not have the same relationship to *car*, since in this combination new is omissible while *a* is not.

A new car
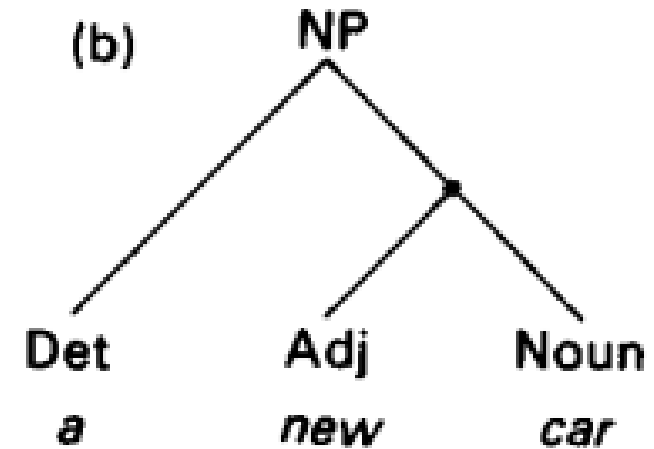
- **Arguing for (b**) would also be based on semantic considerations
- *new* and *car* unite to form a single concept (think single word nouns corresponding in meaning to the adjective plus noun sequence, as in youth = young people, hamlet = small village)

the adjective is semantically linked to the noun, and not to the determiner has the consequence that there are individual co-occurrence restrictions of adjective with noun, stemming from the actualities of the real world, e.g. dry shirt, ?dry idea, *dry water, but no such restrictions for determiner-adjective combinations.

- **Arguing for (c),** one could say that the two elements in our noun phrase with the closest grammatical links are a and car. following.

A new car

NP — Det (a), Adj (new), Noun (car)
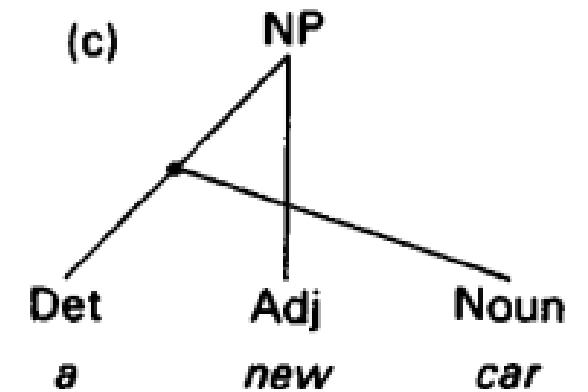
(1) They are mutually dependent on each other for their occurrence, whereas they can occur without new.

(2) If we consider possible substitutions for each of them, we find that it is necessary to set up grammatical sub classes to account for co-occurrence restrictions such as the following.

a car	BUT	*a traffic
this car		*this cars
some cars		*some car [where some = /səm/]
some traffic		*these traffic

Problems?

Not a normal tree – crossing of tree lines is prohibited. It makes a car a "discontinuous constituent"

A new car

(d)
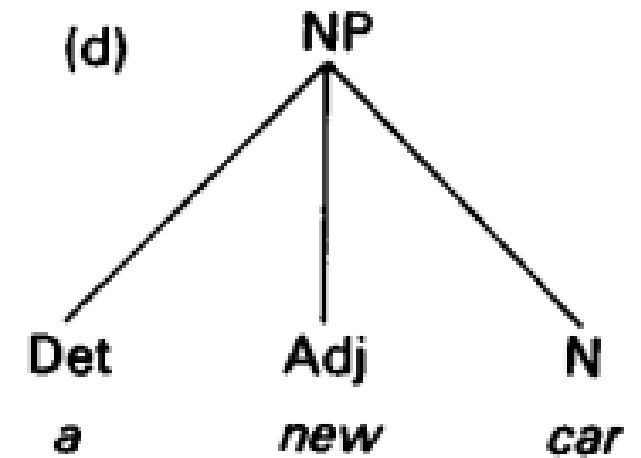
- **Arguing for (d)**, we say that the three elements are equally closely related and, therefore, although they all belong to the noun-phrase construction, no two of them form a "lower-level" construction- there is no lower node.

Problem?

This account of the constituent pattern thus gives no expression to the differing roles of the three words within the construction.

A new car is thus one of many that can, but need not, be analysed in binary terms. There are, however, a number of constructions that seem to absolutely require a "multiple constituent" treatment.

Coordinative constructions

rather than either

OR
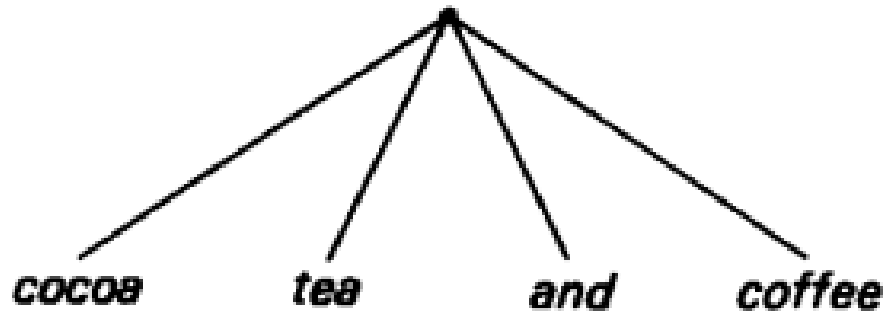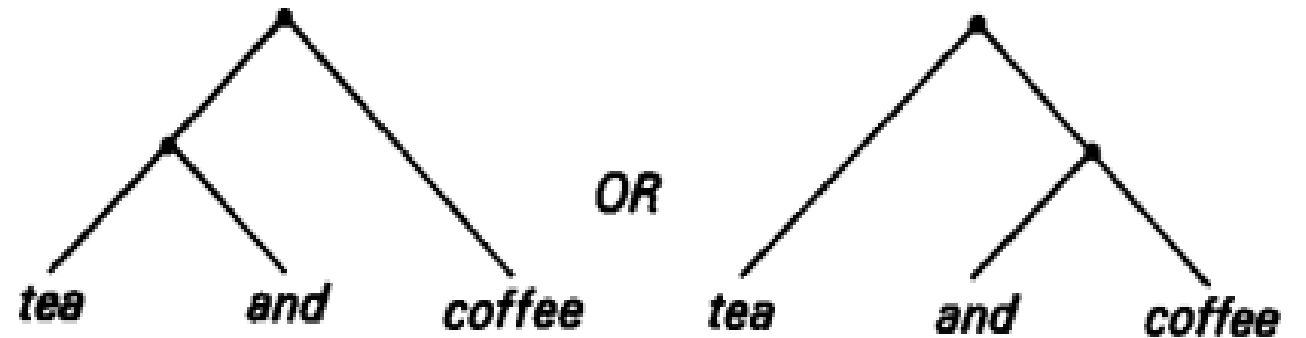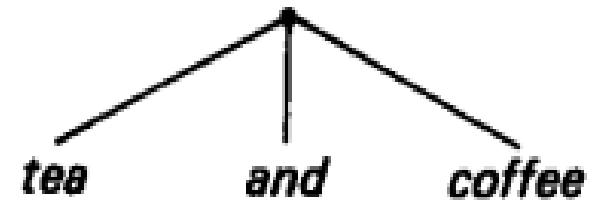
But does and perform the same function as the nouns?

Constituent analysis within a word

- Words may form constituents with bound morphemes too.
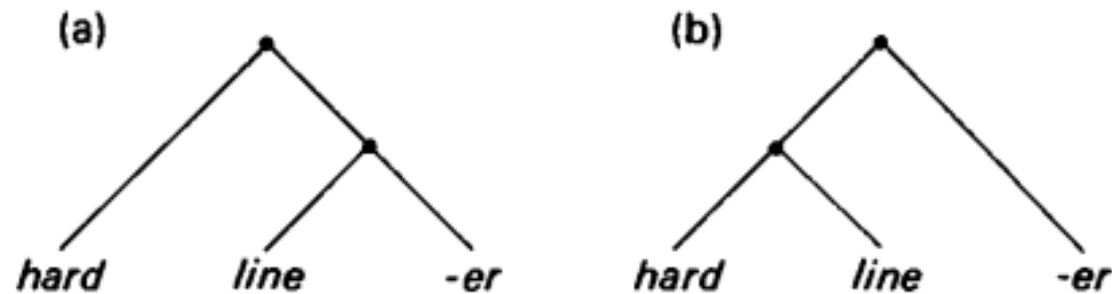
- (a) a hard kind of line
- (b) Person connected to X (*Londoner, golfer, worker, carpenter*)

```
                        (Johnny) •
                              /\
                    (his) •   /  \
                        /\   /    \
              (Paul) •  /  \ /      \
                   /\  /    \        \
          (her) • /  \/      \        \
              /\ /   /\       \        \
    (Jane) • /  \   /  \       \        \
        /\  /    \ /    \       \        \
       /  \/      \      \       \        \
      my  wife    's    brother  's     child
```
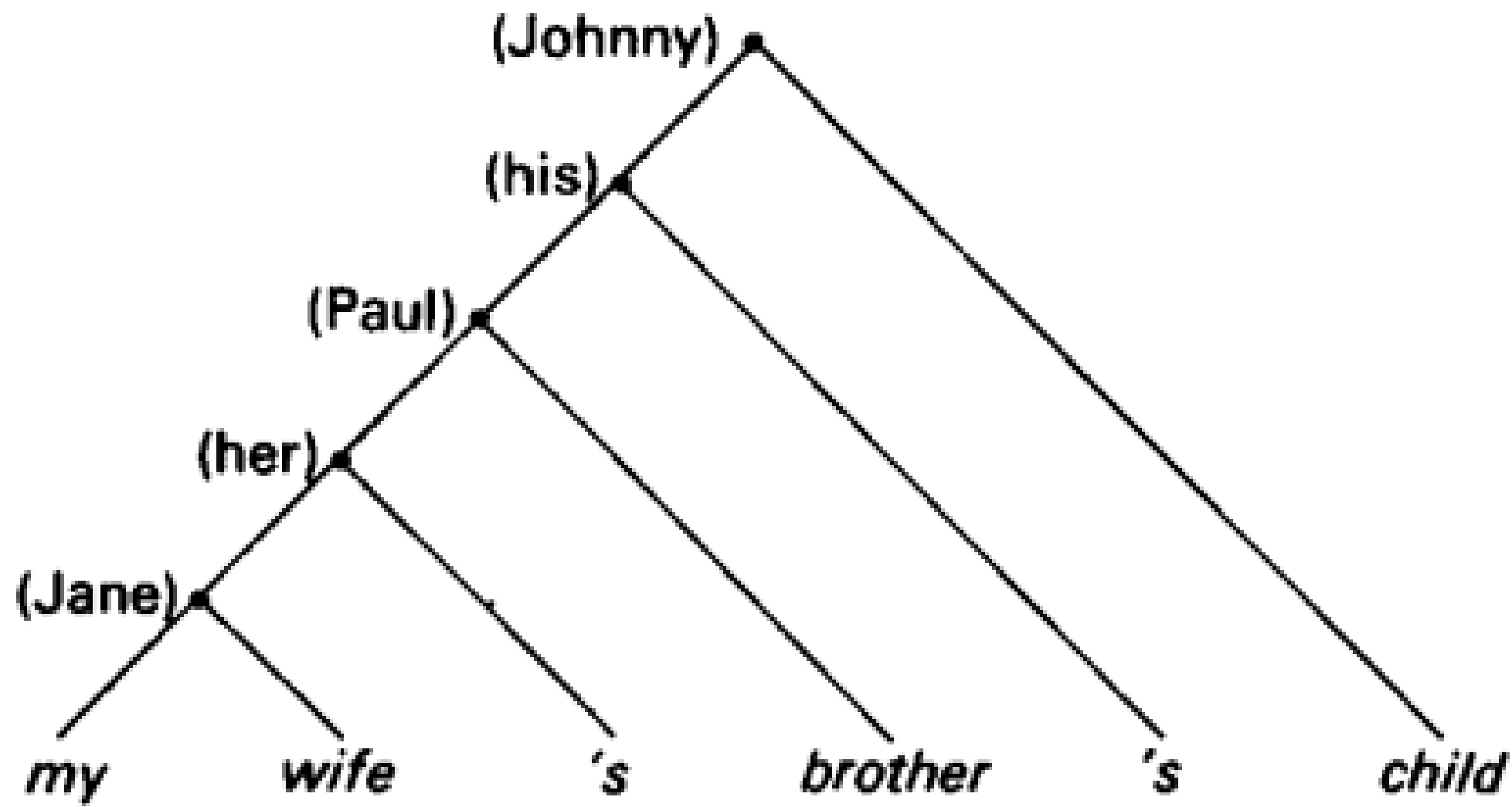
Discontinuous constituents

Cases where the construction involves elements that are not adjacent

take on more staff
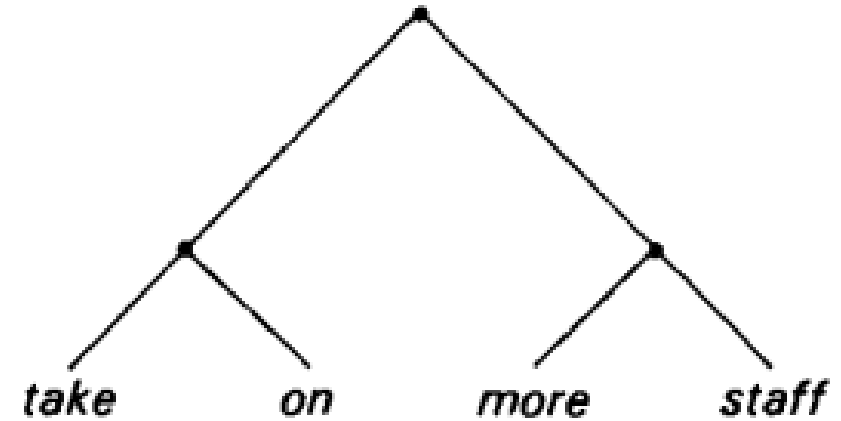
- *take on* (complex verb) is reducible to *engage, retain, dismiss*
- *more staff* (noun phrase object) is reducible to *John*

But

Take *more staff* **on**

Back to the problematic tree diagram
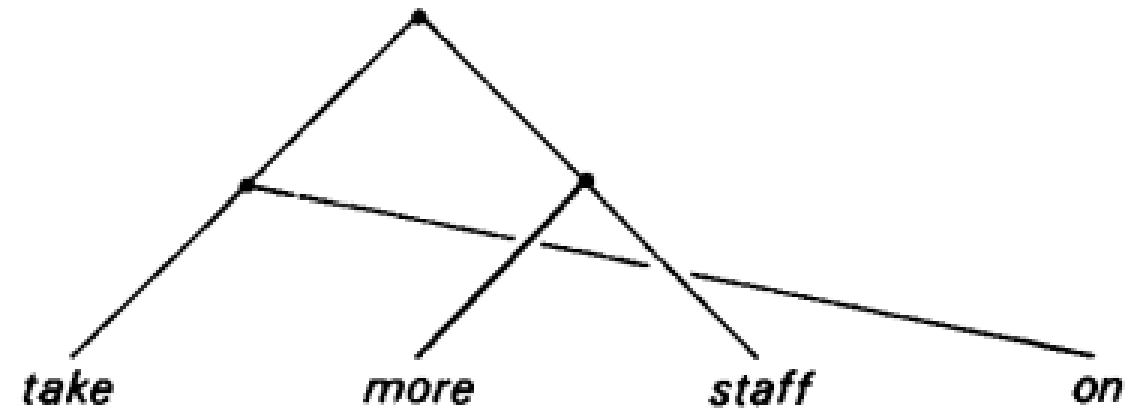
We could give such constructions a deep structure where the constituents are adjacent (but do not appear in their natural sequential order) and a surface structure where the constituents do not belong to an exclusive common construction (but do appear in their natural ordering

Brazil have be-en be-ing beat-en recent-ly
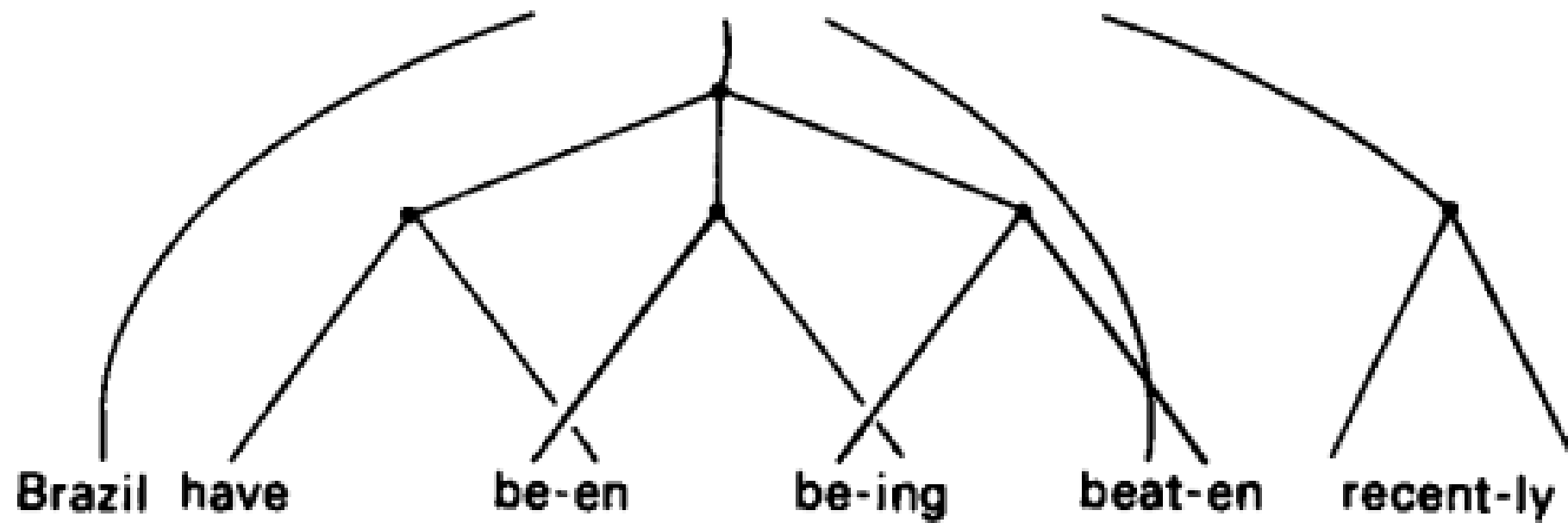
Figure 45

Classwork

1 Draw unlabelled tree diagrams to represent the constituent structure of the following sentences, noting any points where a decision is difficult and considering what factors should determine the choice. (Make words your smallest units, but treat possessive 's as a separate word.)

(a) Bacon sold before the war tasted beautifully crisp.

(b) The hut behind the church with stained-glass windows serves as a refuge for people without any money.

(c) Those fairly large gains greatly increased the Liberal Party's electoral chances a few years ago.

2 Convert the tree diagrams of 1 (a) and 1 (b) into equivalent bracketed strings.

Bracket out the constituents and draw the respective constituency trees

1. The woman with the funny sunglasses bought an umbrella from the shop.
2. I saw a snake in the park near me.
3. Maya left the cake on top of the refrigerator with her mother.
4. The cook fixed the crab broth for the fussy prince.
5. The cook fixed the crab broth for the banquet.
6. Some graphic novels are black and white.
7. Go home!

The "centre" of constituents

are grammatical class categories

- It is necessary to describe not only the domain of a construction and the nature of its constituents, but also the relations that obtain between those constituents.

Exocentric and endocentric constructions

- The distinction is based on the question of an equivalence between the class of the construction as a whole and the class of any of its constituents.

- If there is such an equivalence, the equivalent constituent is the **CENTRE (or HEAD)** of the construction, and the construction is described as **endocentric**. An "uncentred" (or "headless"!) construction is **exocentric**.

Purple heather grows in Scotland.

Heather → there

Adj + Mass Noun → Mass Noun

Prep + Proper Noun → Adverb

the heather → heather

the plant → *plant

the plants → plants

- Both *purple heather* and *in Scotland* are reducible, but only *purple heather* can be reduced to one of its constituents.

BUT WHAT IF YOU CAN'T REPLACE?

- Why mass noun? Because in case of mass nouns the determiner can be dispensed with. This is also the case with plural count nouns. However, not the case with singular count nouns.

Jane was baking a cake.   Jane was making a cake.
→ Jane was baking.   → *Jane was making.

- bake a cake allows omission of its object, make a cake does not.
- The subclass of verbs that allow object-deletion occur in an endocentric construction, whereas those that do not, strictly speaking occur in an exocentric construction, since they only allow reduction to a different subclass of verb, object-deleting transitive (e.g. bake) or intransitive (e.g. work).

"the concepts of endocentricity and exocentricity are thereforeto be used with respect to some specified 'depth' of subclassification." (Lyons, 1968, p. 233).

Endocentric types: subordinate & coordinate

- Subordinate constructions -- the construction has one centre and one other element subordinated to it, occurring as an optional extra.

Purple heather → Heather

the plants → plants

- Coordinate constructions – there are two (or more) independent centres with equal status.

John Smith → John Smith

Knott, England's wicketkeeper → Knott England's wicketkeeper

tea and coffee → tea coffee

red or white → red white

- the representation of coordinative constructions is problematic in that account needs to be taken of the difference in function between the coordinated elements and the marker of the coordination.

- Coordinative and subordinative constructions are so different that it is probably better to regard them as independent types alongside exocentric constructions, rather than as varieties of endocentric construction

In coordinative constructions the two (main) constituents are, as it were, joint heads of the construction, rather in the way of two clients sharing a joint bank account; the marker of coordination, normally a conjunction, obviously has a largely structural role.

In a subordinate construction there is a regular centre plus modifier relationship, but this may cover a range of different grammatical classes. The common strand, though, is the modification relationship between the central obligatory element and the optional element.

(i) *noun + adjective*: entity + differentiating quality
(ii) *verb + adverb*: process/state + differentiating manner or degree
(iii) *adjective + intensifier*: quality + differentiating degree

Exocentric constructions agree with coordinative constructions in that their constituents are equal in terms of occurrence (each is respectively dependent on or independent of the other)

But exocentric constructions differ in that their constituents each make a different functional contribution to the construction.
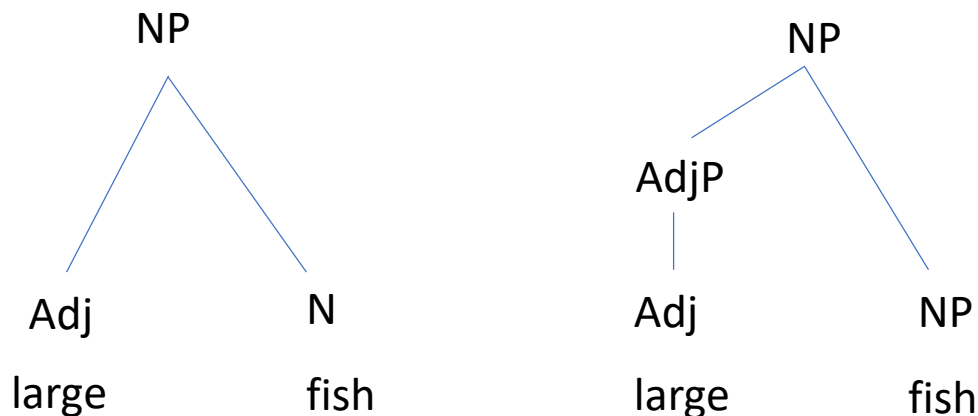
In most cases one exocentric constituent indicates a relational concept and the other constituent is an entity involved in that relation.

(i) *verb + noun phrase*: process/state + participant
(ii) *preposition (or postposition) + noun phrase*: spatio-temporal relation + point on axis/distance along axis
(iii) *subordinating conjunction + clause*: contingent/temporal (etc.) relation + proposition

- A phrase is a constituent with a "head" or "centre".

- If a phrase is an XP, its head is X.

- Therefore the head of a Noun Phrase (NP, for short) is a N, and that of a Verb Phrase (VP, for short) is a Verb.

- A phrase cannot have two heads (The Tree Diagram on the left is incorrect).

```
          NP                              NP
         /  \                            /  \
        /    \                       AdjP    \
       /      \                        |      \
     Adj       N                      Adj      NP

    large     fish                   large    fish
```

- In case of some constituents that are phrasal it is difficult to determine what the head is. E.g.

1. TREES: NPS, ADJPS AND ADVPS

[Application of Skills; Basic]

Draw the trees for the following AdjPs, AdvPs, and NPs:

a) very smelly
b) too quickly
c) much too quickly
d) very much too quickly
e) the old shoelace
f) the soggy limp spaghetti noodle *[assume spaghetti = Adj]*
g) these very finicky children

2. TREES II: ENGLISH PPS

[Application of Skills; Basic]

Draw the trees for the following English NPs and PPs:

a) The desk with the wobbly drawer
b) In my black rubber boots *[assume rubber is an Adj]*
c) That notebook with the scribbles in the margin
d) The pen at the back of the drawer in the desk near the bright yellow painting

Phrase Structue Syntax

Rules to generate phrase markers

Lexical Insertion Rules

Rule Ordering