In the light of what you've read so far in this chapter about (a) pre-determiners, (b) determiners, (c) adjectival modifiers, and (d) noun modifiers, draw the phrase marker for the NP in [33]. **Discussion 4**, page 158.

[33] all those dusty gorilla suits

More on the structure of NOM

How should sequences of more than one AP within NOM be represented? Consider [34]–[35]:

[34] a red car   [35] a new red car

Before deciding how [35] should be represented, give the phrase marker for [34].

The phrase marker for [34] will be the same as that for *the sad clowns* – [4] at the beginning of the chapter. So [*red car*] is a NOM in [34]. Now, there's no reason to suppose that it is not a NOM in [35] as well. On that assumption, *new* must be modifying the NOM [*red car*]. You now have all the information needed to draw the phrase marker for [35].

The important thing to notice here is that, for [35], **we need two NOMs.** This follows from the comments of the preceding paragraph. So [36] is the phrase marker for [35].

[36]
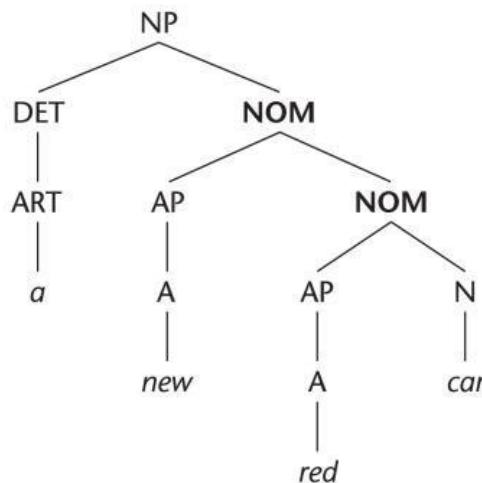
What this shows is that **NOM is a recursive category.** In other words, NOM can have NOM as an immediate constituent. In fact, apart from noun modifiers, EVERY MODIFIER **must be immediately dominated by a NOM.** In the

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light of this, give the phrase markers for the following NPs. **Discussion 5,** pages 158–9.

[37] some large greasy uneaten fritters

[38] those two very charming atomic scientists

I'll be refining the analysis of NPs in Chapter 9. If you're interested in finding out now why it needs refining, see the Appendix at the end of this chapter.

Post-modifiers

In this section I look at just two of the categories that follow the head noun within NOM: Prepositional Phrases and certain types of Adjective Phrase.

Prepositional Phrases

In the NP *an expedition to the pub*, the head N is *expedition* and it is modified by the PP *to the pub*, which consists of P + NP. In this case, we have a post-modifying (PP) sister to the noun, within NOM. So:

[39a]
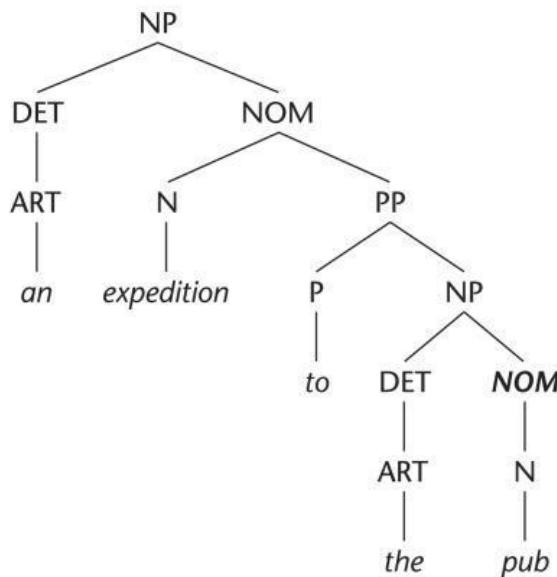
Now, just as *expedition* can be modified by a PP, so can *pub*. For example: (*an expedition to*) *the pub in the village*. The phrase marker for this is going to start off exactly like [39a] – but the bold italicised *NOM* in [39a] will now branch, as in [39b]:

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[39b]

```
                        NOM
                      /     \
                    N        PP
                    |       /   \
                   pub    P      NP
                    |     |     /    \
                   in   DET    NOM
                         |      / ⋰
                        ART    N
                         |     |
                        the  village
```
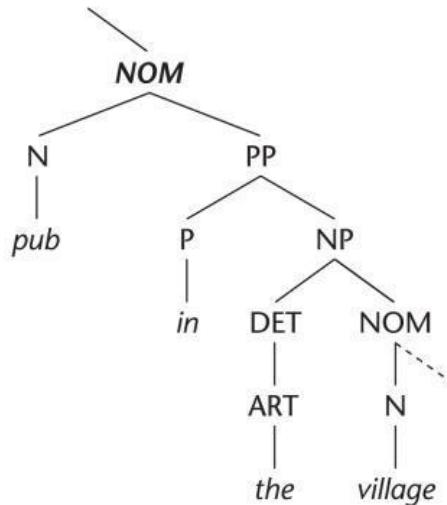
As my dotted line shows, this could go on indefinitely – for example,

[40] an expedition to the pub in the village at the foot of that mountain

This might seem complicated but it's really very simple. It's the same story again and again. Were you to draw the phrase marker for [40] and look at the right-hand nodes, you'd find it goes NP – NOM – PP again and again (four times, in fact).

All those NPs have a REGULAR RIGHT-BRANCHING STRUCTURE (see [39a–b]). Now, at first glance, [41] might seem to have the same structure.

[41] an expedition to the pub for more cherry brandy

Not so. I hope you agree that, unlike *the pub in the village* in [39a–b], *the pub for more cherry brandy* is not a constituent of [41]. *For more cherry brandy* is not modifying *pub*. So what *is* it modifying? Consult your intuitions about the meaning of [41] and in the light of that suggest an appropriate analysis for it. Use a triangle for each of the PPs. Hint: remember that NOM is a recursive category.

You've got it, I'm sure. *For more cherry brandy* modifies a constituent that has *expedition* as its head – it's an expedition (. . .) for more cherry brandy. So, it must be modifying *expedition to the pub*. Now, *expedition to the pub* is a NOM. And *expedition to the pub for more cherry brandy* is a NOM as well. So we have a NOM within a NOM – as in [42]:

[42]

```
                        NP
                     /      \
                  DET         NOM
                   |         /    \
                  ART      NOM      PP
                   |      /   \    / ▲  \
                  an    N     PP  for more cherry brandy
                        |    / ▲ \
                   expedition to the pub
```
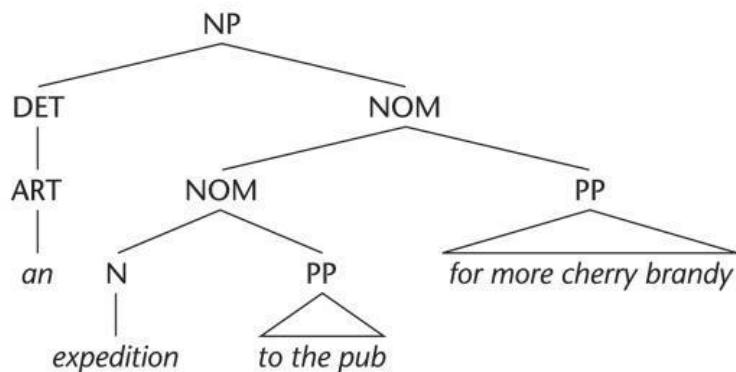
This is *not* a regular right-branching structure. Notice that this arrangement of (post-modifying) PPs is the mirror image of the arrangement of (pre-modifying) APs in [36]. Again, there are as many NOMS as there are modifiers.

You may remember the NP *an agreement between workers on overtime* from a previous exercise. This is ambiguous, depending on whether *on overtime* modifies (a) the NOM [*agreement (between workers)*] – 'an overtime agreement' – or (b) just the N *workers* – 'workers who are on overtime'. Now decide what element the italicised PP in each of the following NPs modifies. Is it (a) modifying a NOM consisting of the head N plus PP (as in [42]), or is it (b) modifying just the preceding N (as in [39a–b])? **Discussion 6**, page 159.

[43] those observations on alchemy *by Newton.*

[44] an interpretation of that sentence *in Proust's novel.*

[45] a book of quotations *from Shakespeare.*

[46] a book of quotations *from Oxford University Press.*

All the NPs considered so far have included just pre-modifiers or just post-modifiers. **What happens when NOM includes both a pre-modifying AP and a post-modifying PP?** Remember, there must be as many NOMs as there are modifiers. There are two possibilities, then:
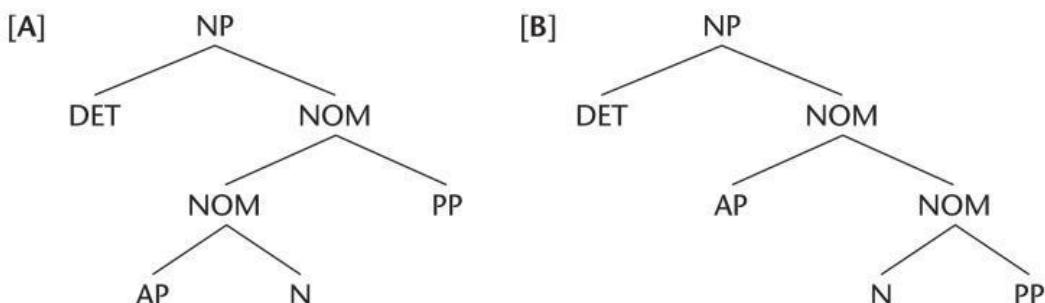
With some NPs, it doesn't matter much which analysis we give (I give examples later). For others it does matter, and deciding which analysis is appropriate involves attending to the meaning in each case. In each of the following, it matters. Try to decide which analysis – A or B – is appropriate in each case.

[47] that nuclear scientist from Germany.

[48] the famous writer of detective stories.

[49] an anxious applicant for the job.

[50] structural engineers in disgrace.

[51] the personal assistant in the hat.

[52] their secret visits to the kitchen.

[53] Larry's neat summary of the argument.

Analysing [47] as in [**B**] – *[*nuclear*] [*scientist from Germany*] – is not right. *Nuclear scientist* denotes a CATEGORY of scientist. Since such a category exists, it's appropriate there should be an expression to denote it. So [*nuclear scientist*] is a constituent of [47]. The distinction between *nuclear* and *from Germany* (in their relation to *scientist*) is brought out by noting that, while *That [nuclear scientist] IS from Germany* is quite natural, *That [scientist from Germany] IS nuclear* is just bizarre. Assuming the PP *from Germany* means what *German* means, the same bizarre effect is achieved by the ordering **that nuclear German scientist*, where *nuclear* is again separated from the element it wants to form a constituent with. By contrast, *that German nuclear scientist* is fine. All this indicates analysis [**A**] for [47] – *from Germany* modifies [*nuclear scientist*].

The same kind of thinking suggests analysis [**A**] for [50] and [51]. By contrast, analysis [**B**] is appropriate for [48], [49], [52], and [53].

As regards the NP [53], for example, note its parallelism to the sentence [54]:

[53a]   Larry's neat summary of the argument. (NOUN PHRASE)

[54a]   Larry neatly summarised the argument. (SENTENCE)

Give the phrase marker for the sentence in [54a].

In the SENTENCE, *the argument* is the direct object of the verb *summarised*. As a complement, it combines with *summarised* (V) to form a VP – and that VP is modified by *neatly*. Now, it's reasonable to expect the structural configuration of the NP to parallel that of the sentence. After all, [53a] is simply sentence [54a] recast as an NP:

[53b]
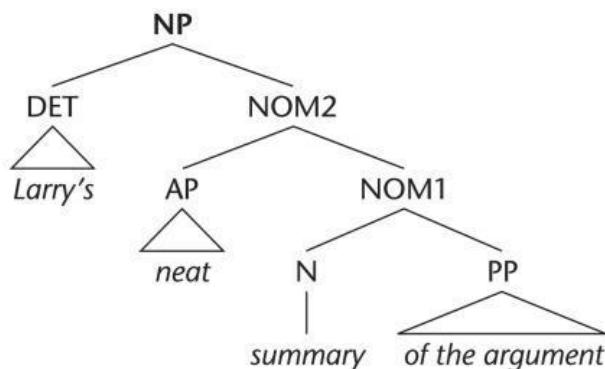
[54b]
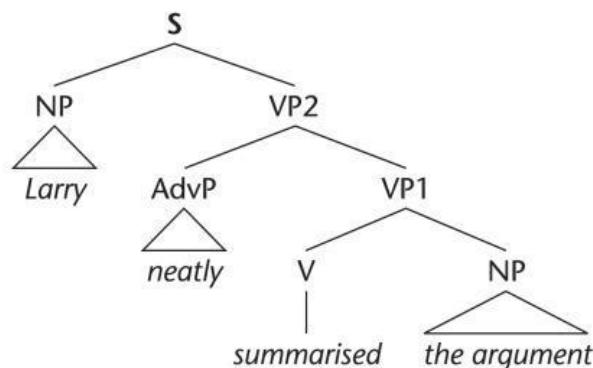
Only the categories have changed. Notice that the NOMs in the NP match the VPs in the S. The same goes for the NPs in [48], [49], and [52]. The Appendix to this chapter discusses a refinement suggested by this parallelism between S and NP.

Now compare the NPs in [47]–[53] above – in each of which the choice between analyses [A] and [B] clearly matters – with the following NPs:

[55] The unknown scientist from Germany.

[56] The new railings in the park.

[57] That tall student in the hat.

With these, either analysis is possible. The topmost NOM in [55], for example, could be analysed either as [A] [[*unknown scientist*] [*from Germany*]] or [B] [[*unknown*] [*scientist from Germany*]]. So which should we choose? Well, the analysis that associates the more PERMANENT and/or INTRINSIC property more closely with the head noun will generally seem more natural. Thus the [B] analysis seems more natural for [55], since being from Germany is more permanent/intrinsic than being unknown.

The NP in [58] includes three modifiers:

[58] that tall student of maths in the hat.

Bearing in mind that there will be as many NOMs as there are modifiers, and that *student of maths* corresponds to the VP constituent [*studies maths*], give a COMPLETE phrase marker for that NP (i.e. using no triangles). **Discussion 7, page 159.**

More on Adjective Phrases

A few adjectives (including *present*, *absent*, *responsible*, *visible*) can pre-modify or post-modify the head noun in NOM.

[59a] the responsible men   [59b] the men responsible

[60a] the present members   [60b] the members present

As post-modifiers, APs occupy the same position in the structure of NOM as PPs. A difference in meaning is associated with this difference of position of the AP. In [59a] the men are responsible sort of people – that's their nature. But in [59b] they are responsible *FOR something*. In [60a] they are the current members. But in [60b] they were present *AT* (i.e. attended) *some event*. In contrast to the pre-modifying APs, when an AP appears in the post-modifying position, I hope you agree it feels as if something has ellipted from the AP.

The ellipted element functions as COMPLEMENT OF THE ADJECTIVE. In the following APs, the complement is explicit.

[61] responsible for the sauces.   [62] happy in his job.

[63] nervous of exams.   [64] devoid of hope.

When, in an NP, a modifying AP includes a complement, it always POST-modifies the head noun:

[65a] the chef responsible for the sauces   [66a] a stuntman happy in his job.

[65b] *the responsible for the sauces chef   [66b] *a happy in his job stuntman

Here's the phrase marker for [65a]:

[67]

```
                          NP
                 ┌─────────┴─────────┐
               DET                 NOM
                │             ┌──────┴──────┐
               ART           N             AP
                │            │          ┌───┴───┐
               the         chef        A       PP
                                        │      ╱ ╲
                                  responsible  for the sauces
```
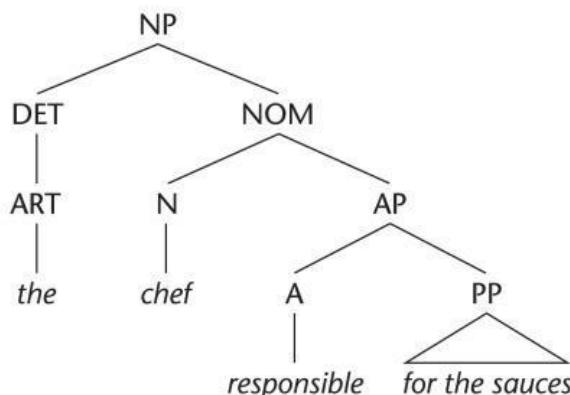
There's a reason why such APs must POST-modify the Noun. Call it 'The Friendly Head Principle' (FHP): **within NOM, the head of a modifying phrase wants to be as close as possible to the head noun.** In [65a], the head of the AP (*responsible*) is right next to the head of the NP (*chef*). By contrast, in pre-modifying position, in *[65b], the head of the AP is separated from the noun by the AP's own complement. Notice that the FHP explains **why PPs of the form P+NP always post-modify the head noun** (since the head (P) will then sit next to the head N). It also explains why, when a modifying AP includes – or even *could* include – (pre-)modification by DEG, it pre-modifies the head noun. Compare [68] and [69a–b]:

[68] the very responsible men

[69] a. *the chef very responsible
      b. *the chef very responsible for the sauces.

Modification of pronouns

I've said that pronouns replace full NPs. It is rather awkward, therefore, to find pronouns combining with an AP [70a–b] or PP [71a–b] *within* the structure of an NP.

[70a] something wonderful.   [70b] anyone intelligent.

[71a] someone in the crowd. [71b] no-one/none from the bank.

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In the case of indefinite pronouns such as *something/one, anything/one, nothing/ no-one/none*, what's happened, historically, is that a determiner (*some, any, no*) and a head noun (*thing/one*) have coalesced into a single word (*some surprising thing → something surprising, any intelligent one → anyone intelligent*). The fact that such pronouns can only be post-modified (not pre-modified, as in **intelligent anyone*) is connected with this historical fact. It means we must allow for phrase marker representations like [72a–b].

[72a]

NP
├── pronoun
│   └── *anyone*
└── AP
    └── *intelligent*

[72b]

NP
├── pronoun
│   └── *someone*
└── PP
    └── *in the crowd*
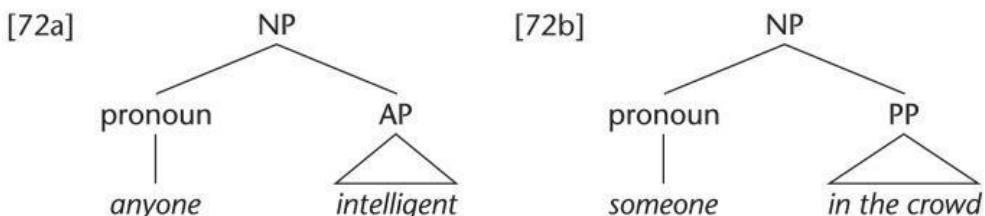
The same analysis might seem appropriate for [73]–[74], especially since the italicised words are sometimes categorised as pronouns:

[73a]   *some* of the animals.   [73b]   *those* in the cabin.

[74] $\left\{\begin{array}{l} all \\ both \\ half \end{array}\right\}$ of the bottles.

However, IF (big 'if') they are pronouns, notice they are also **determiners** ([73a–b]) **or pre-determiners** ([74]). In fact, genuine pronouns, which cannot also function as determiners or pre-determiners, cannot be post-modified: **they from the factory*, *he of the men.

It's arguable, then, that the 'pronouns' in [73]–[74] are not pronouns at all, but are what they always were: determiners or pre-determiners. They only appear to have changed into pronouns – and thus be functioning as the head of their NP because **the real head of the NP has been ellipted**. This suggests that [73a], for example, should be analysed as in [75], in which *animals* is the ellipted head:

[75]

NP
├── DET
│   └── Q
│   └── *some*
└── NOM
    ├── N
    │   └── **E**
    └── PP
        └── *of the animals*
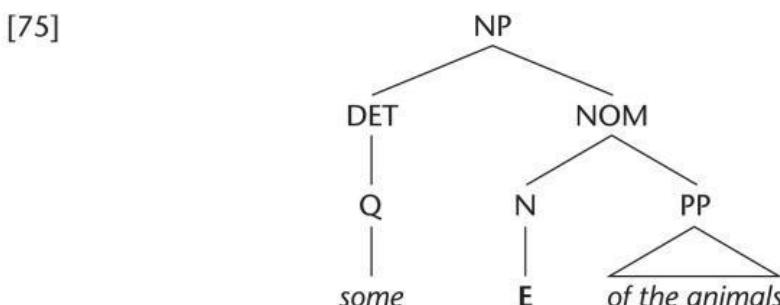
I'll adopt **this elliptical head analysis**. This maintains the categorisation of the italicised words in [73]–[74] as determiners/pre-determiners. Applied to [76], for example, the elliptical head analysis allows us to maintain the categorisation of numerals (e.g. *two*) as quantifying adjectives (QA).

[76] the two in the dungeons.

Give the phrase marker for [76]. **Discussion 8**, page 160.

There are facets of NP structure that this chapter hasn't covered. Some are dealt with in the chapters that follow. Furthermore, several problems have been skated over. You can get an idea of what these are by looking closely at NPs in any piece of writing and seeing to what extent the analyses proposed here can handle them. A refinement to the analysis, which you and/or your tutor may want to incorporate, is discussed in the Appendix to this chapter.

Discussion of in-text exercises

1.

2.

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3.

```
                    NP
           _____|_____
         DET              NOM
          |          _____|_____
         ART       PartP           N
          |      ____|____         |
         the   AdvP   V-part     gravy
                |       |
               Adv   congealing
                |
             rapidly
```

4.

```
                    NP
          _____|_____
      PRE-DET                  NP
         |            _____|_____
        all         DET               NOM
                     |           _____|_____
                    DEM         AP             N
                     |          |         _____|_____
                   those        A         N         N
                                |         |         |
                              dusty    gorilla    suits
```

5.

```
                    NP
           _____|_____
         DET               NOM
          |          _____|_____
          Q         AP            NOM
          |         |        _____|_____
        some        A       AP           NOM
                    |        |       _____|_____
                  large      A      AP           N
                             |       |           |
                          greasy     A         fritters
                                     |
                                  uneaten
```
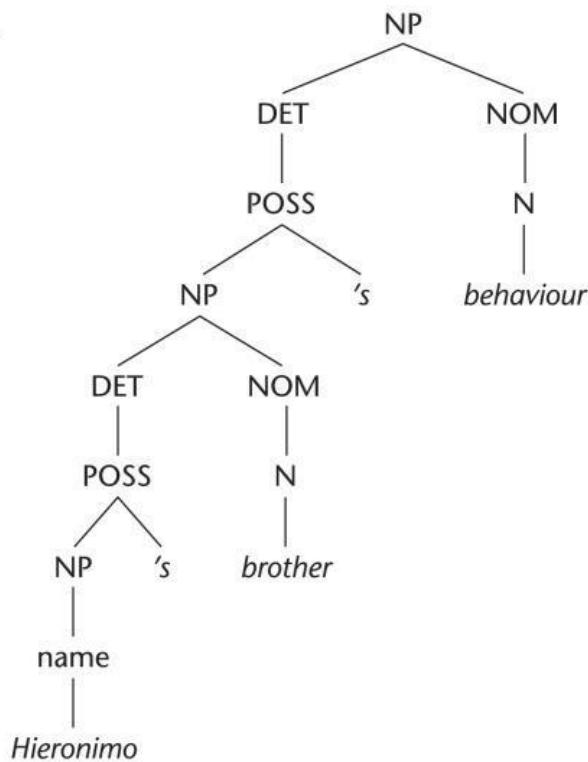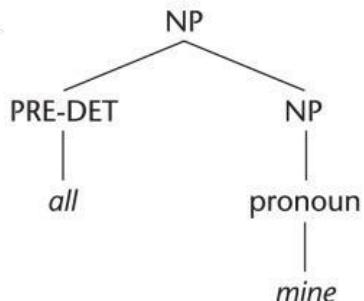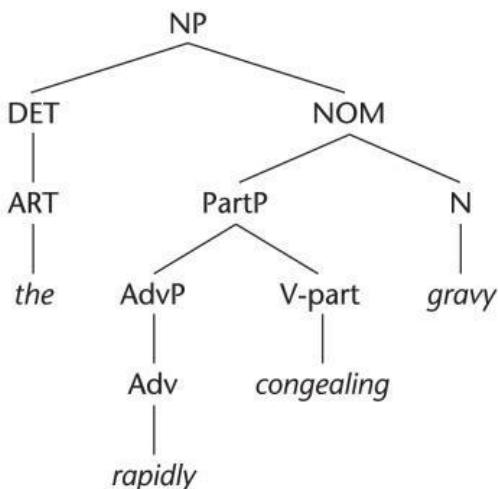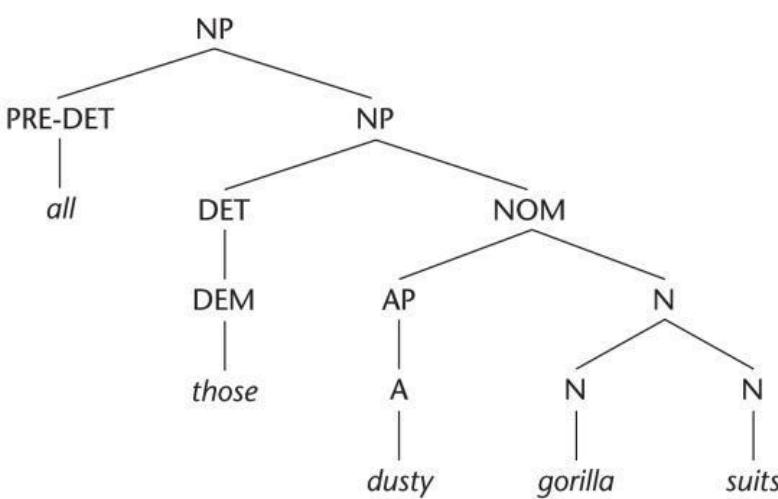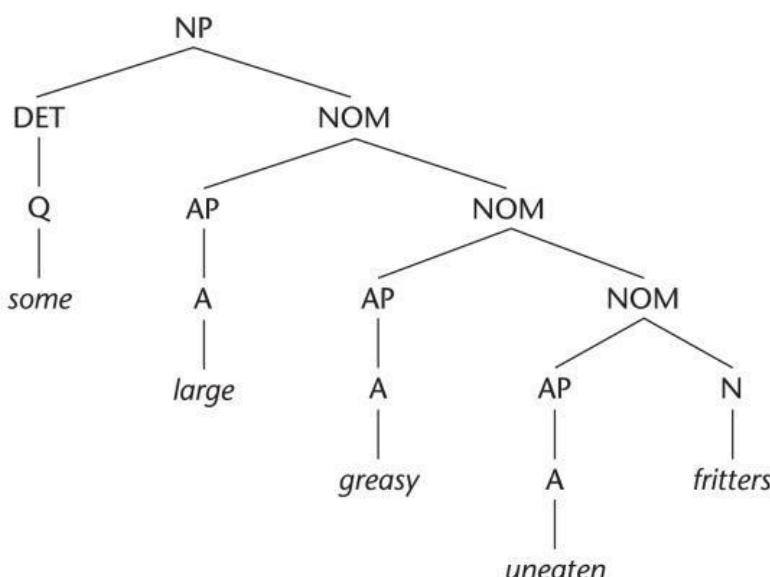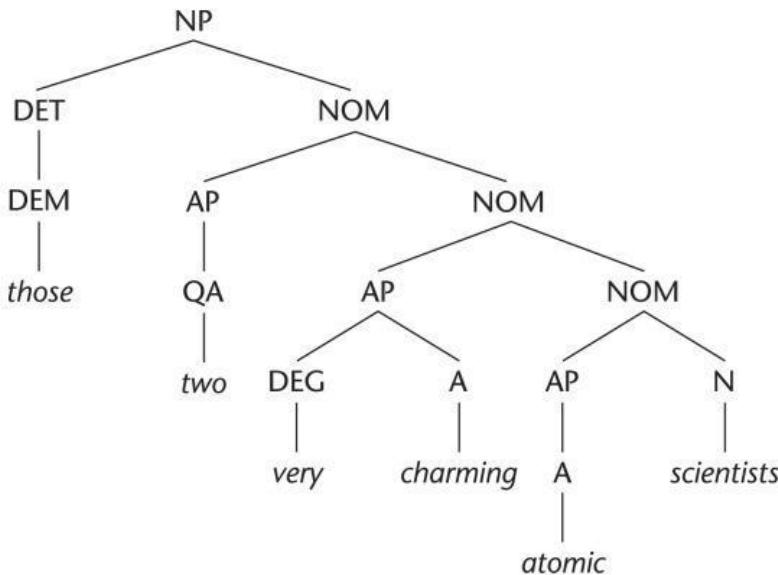
6. [48] Those [[observations on alchemy] [by Newton]].   (a)

[49] An [[interpretation] [of that sentence in Proust's novel]].   (b)

[50] A [[book] [of quotations from Shakespeare]].   (b)

[51] A [[book of quotations] [from Oxford University Press]].   (a)

7. *Of maths* relates most closely to the head N *student*. And *tall* denotes a more permanent property than *in a hat*. So:

8.

```
                    NP
          ┌─────────┴─────────┐
        DET                  NOM
         │            ┌────────┴────────┐
        ART          AP               NOM
         │            │         ┌───────┴───────┐
        the          QA        N              PP
                      │         │        ┌──────┴──────┐
                     two        E       P            NP
                                         │      ┌──────┴──────┐
                                        in     DET          NOM
                                                │            │
                                               ART          N
                                                │            │
                                               the        dungeons
```
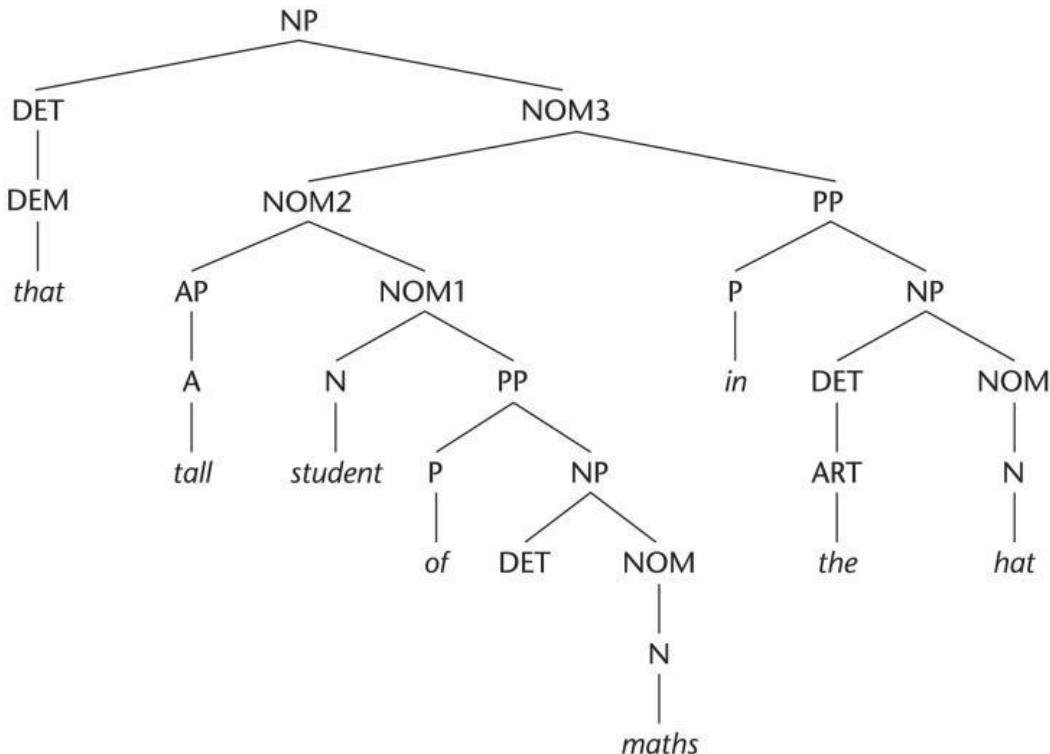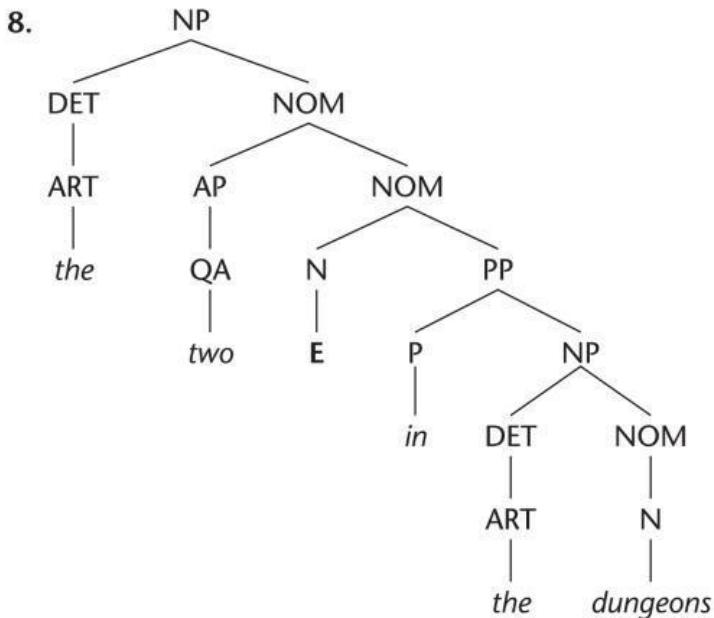
Exercises

1. Draw complete phrase markers for the following NPs. 'Complete' means not using any triangles. Several of them involve empty DET (some more than once). (c) is ambiguous and should be assigned two phrase markers. (f) contains a co-ordination. Remember that the mother and the two sisters of the co-ordinator *and* must be of the same category. Before attempting (f), ask yourself whether it's a co-ordination at the lexical (N), intermediate (NOM), or phrasal (NP) level.

(a) Experts at syntax.

(b) Those ten paintings of his garden by Monet.

(c) More ferocious curries.

(d) The dying king's final message.

(e) All Gulbenkian's contributions to charity.

(f) Some rather off-putting gestures and remarks.

2. On page 146, *few* was categorised as a quantifying adjective (QA), so *the few students* would be analysed as in (a):

```
(a)              NP                            (b)            NP
         ┌───────┴───────┐                          ┌─────────┴─────────┐
        DET            NOM                         DET                 NOM
         │         ┌────┴────┐                      △                   │
        ART       AP        N                     a few                N
         │         │         │                                          │
        the       QA       students                                  students
                   │
                  few
```
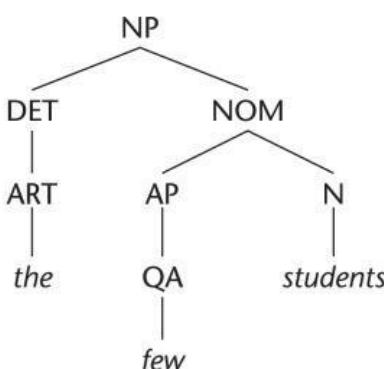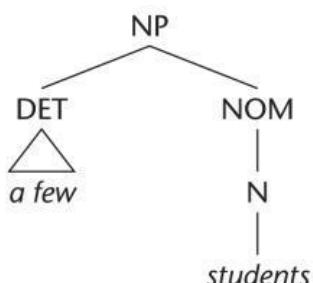
However, analysis (a) is not appropriate for *a few students*. For this, I propose analysis (b), in which *a few* is represented as a constituent. Explain what's wrong with analysing *a few students* as in (a). A similar issue arises with the NP *a little butter*. *A few* and *a little* are special – highly irregular – determiners.

Discussion of exercises

1. (a)

NP
- DET
- NOM
  - N
    - *experts*
  - PP
    - P
      - *at*
    - NP
      - DET
      - NOM
        - N
          - *syntax*

(b)

NP
- DET
  - DEM
    - *those*
- NOM
  - AP
    - QA
      - *ten*
  - NOM
    - NOM
      - N
        - *paintings*
      - PP
        - P
          - *of*
        - NP
          - DET
            - POSS
              - *his*
          - NOM
            - N
              - *garden*
    - PP
      - P
        - *by*
      - NP
        - name
          - *Monet*

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(c) (i)

```
                    NP
            _____|_____
           DET              NOM
                      _____|_____
                     AP             NOM
                     |          _____|_____
                     QA        AP         N
                     |         |          |
                   more        A        curries
                               |
                           ferocious
```

(ii)

```
                    NP
            _____|_____
           DET              NOM
                      _____|_____
                     AP              N
                  ___|___            |
                 DEG     A        curries
                 |       |
               more   ferocious
```

(d)

```
                              NP
                    _____|_____
                   DET                  NOM
                    |                ____|____
                  POSS             AP        N
             _____|_____         |         |
            NP           's         A      message
        ____|____                   |
       DET      NOM               final
        |    ____|____
       ART  PartP    N
        |    |       |
       the  V-part  king
             |
           dying
```

(e)

```
                         NP
                _____|_____
            PRE-DET            NP
              |          _____|_____
             all        DET          NOM
                         |        ____|____
                       POSS      N        PP
                    ____|____    |      __|__
                   NP       's contributions P    NP
                   |                      |   __|__
                 name                     to DET  NOM
                   |                              |
              Gulbenkian                          N
                                                  |
                                               charity
```

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(f)

2. The head of the NP *a few students* is plural, so the whole NP is plural and can't have the (singular) determiner *a*, the indefinite article. Similarly, *butter* is a mass noun and mass nouns can't be determined by the indefinite article. The whole NP *a little butter* is mass, not count.

Further exercises

1. Draw complete phrase markers for the following NPs.

Set I

(a) Melancholy thoughts.

(b) Some very clever chess moves.

(c) The boat's sudden move to the left.

(d) The word on the tip of my tongue.

(e) An invitation to the palace from the Queen.

(f) All performers absent from the rehearsal.

(g) Two of those city plans.

Set II

(a) Coffee and oranges. (See also *Rhythm and blues*.)

   (Not ambiguous, but three analyses are possible. If you give only one of these, save ink and give the simplest.)

(b) Three stars visible to the naked eye.

(c) The king of England's short and turbulent reign.

(d) These smartly-dressed men and women. (ambiguous)

(e) Both the man's eyes.

(f) Both the men's behaviour.

   ((e) and (f) need care. (e) means 'both eyes of the man', not *'the eyes of both the man'. (f) means 'the behaviour of both the men', not *'both the behaviour of the men'.)