

Chapter 2 Diagnostics for Syntactic Structure

1. Diagnostics for structure

1.1. Structure and meaning

The discussion of the first chapter of this book was based on the hypothesis that language is two-faced: it unites form and interpretation ('meaning'). This hypothesis is trivially correct in the sense that words have a form and a meaning, but we have also seen that the arrangement of words into a sentence in itself is meaningful in that it also contributes to the interpretation of the sentence. Consider the underlined string of words in (1). What kind of information ('meaning') does it contribute to the sentence? Could you replace the underlined words by just one word?

- (1) Mr Straw decided to appoint a panel of independent doctors to examine General Pinochet on January 5. (*Guardian*, 13.1.2000, page 1, col.3)¹

The string of words *on January 5* provides information about a date, or in more general terms about 'time'. The date given, *January 5*, refers to the time of some action or event. Which event is this? In fact, upon reading our example carefully, it seems that there are three possible ways of relating *on January 5* to the sentence: (a) *on January 5* may denote the time of Mr Straw deciding, (b) it may denote the time of appointing, or (c) it may denote the time of examining. (1) is three ways **ambiguous**: one string of words has three interpretations. The ambiguity does not reside in a lexical ambiguity of any one of the individual words in the string *on January 5*. These words have a constant meaning in this example, whichever the interpretation chosen. Let us look more closely at each of the three readings.

In the first reading, Mr Straw decided to do something, and his decision was taken on January 5th. On January 5th, what did Mr Straw decide to do? The answer to this question is that he decided to appoint a panel of independent doctors to examine General Pinochet. The string of words *to appoint a panel of independent doctors to examine General Pinochet* is a unit that functions as the object of the verb *decided*. The string of words *on January 5* itself is not part of the answer to the question what Mr. Straw decided, it is not part of the object of *decide*:

- (1) a Mr Straw decided
WHEN? - [on January 5]
WHAT? - [to appoint a panel of independent doctors to examine GP]

In the second reading of the sentence, Mr Straw decided to do something and this activity would take place on January 5th. To the question what Mr Straw decided to do, the answer would now be 'to appoint a panel of independent doctors to examine General Pinochet on

¹ Cf. Sentence (2) in Exercise 3 of Chapter 1.

January 5'. In this reading of (1), the string *on January 5* is part of the answer to the question what Mr. Straw decided, in other words it is part of the object of *decide* and it specifies the time of appointing. The time of Mr. Straw's decision-making itself is now not specified. In this reading, the object of *decide* is the string *to appoint a panel of independent doctors to examine General Pinochet on January 5*. To the question when he will appoint the panel the answer is that he will appoint them on January 5. To the question who Mr Straw will appoint on January 5 the answer is: 'a panel of independent doctors to examine General Pinochet'. For this second interpretation, we can represent the relations between the elements of the sentence informally as in (1b). In (1b) *on January 5* is part of the object of *decided*. Recall that in (1a) above, the string *on January 5* was not part of object of *decided*.

- (1) b Mr Straw decided
WHAT?
[to appoint a panel of independent doctors to examine GP on January 5]
to appoint
WHEN? - [on January 5]
WHO? - [a panel of independent doctors to examine GP]

Finally, in the third reading, the string *on January 5* specifies the time of the examining. We are not told when Mr. Straw took his decision, nor are we told when the appointment will take place, but we are told on which date the appointed panel will examine General Pinochet. In this reading, Mr Straw again decided to do something. To the question what Mr Straw decided to do, the answer would again be 'to appoint a panel of independent doctors to examine General Pinochet on January 5'. In the third reading of (1), the time of the decision-making is not specified. The direct object of *decide* is the string *to appoint a panel of independent doctors to examine GP on January 5*. The string *on January 5* is part of the object of *decide* but in the third interpretation, it does not specify the time of appointing. *On January 5* specifies on which date the panel will examine General Pinochet. The answer to the question who Mr Straw will appoint is 'a panel of independent doctors to examine GP on January 5'.

- (1) c Mr Straw decided
WHAT?
[to appoint a panel of independent doctors to examine GP on January 5]

to appoint
WHO? - [a panel of independent doctors to examine GP on January 5]

to examine
WHO? - [General Pinochet]
WHEN? - [on January 5]

(1) thus has three interpretations which arise from the three different relations which the string *on January 5* can have with the remainder of the sentence. As mentioned, the string *on*

January 5 itself does not change its meaning in the three interpretations. *On January 5* denotes a temporal specification, the fifth day of the month of January. What changes is the way this temporal specification is integrated into the sentence. In (1c) *on January 5* specifies the timing of *examine General Pinochet*; in (1b) it specifies the timing of *appoint a panel of independent doctors to examine General Pinochet*; in (1a) *on January 5* specifies the timing of *decided to appoint a panel of independent doctors to examine General Pinochet*. The different meanings come about by the way the unit *on January 5* is hooked onto the sentence; in other words, the meaning differences come about by the various ways by which the sentence has been assembled. The three readings of *on January 5* are due to the structural relations in the sentence, its **syntax**. Ambiguities which arise through different structural relations are **structural ambiguities**.

The ambiguity that arises in (1) is not an exceptional phenomenon. This type of structural ambiguity is fairly frequent in actual usage, even though it rarely leads to problems of communication. In a particular communicative setting, the reader /hearer of ambiguous sentences will be able to pick out the appropriate reading easily.² Sometimes, though, a writer/speaker may deliberately exploit the potential for ambiguity created by the syntax. The following extract illustrates this point:

- (2) I went to the National Gallery today, but it brought back painful memories of B., so I went back to Soho and paid two pounds to watch a fat girl with spots remove her bra and knickers through a peephole. I watched her through a peephole. She didn't remove her underclothes through a peephole. Query: are there night classes in syntax? (Townsend, Sue. 1993. *Adrian Mole. The Wilderness Years*. Mandarin. 248-9.)

Let us look at (1) once again. Our discussion of this example implies that a sentence is not put together at one go but that it is assembled step by step from smaller units. The different readings of (1) can directly be related to the way the sentence is assembled. In particular, we can relate the ambiguity of (1) to the timing of hooking the unit *on January 5* onto a particular part of the sentence. In (1c), the string *on January 5* belongs with *to examine General Pinochet*. We could say that when assembling the sentence, the string *on January 5* is hooked onto the string *to examine GP*, creating a unit *to examine General Pinochet on January 5*. The resulting unit is then hooked up to *a panel of independent doctors*. In turn, the resulting unit *a panel of independent doctors to examine GP on January 5* is hooked onto *appoint*, and finally the result is itself hooked up to the verb *decided* and its subject *Mr Straw*.³ (3a) schematises the steps of the assembly process to create the reading in which *on January 5* modifies *examine*.

- (3) (i) to examine General Pinochet + [UNIT1 on January 5]
⇒ [UNIT2 to examine General Pinochet [unit1 on January 5]]

² See Sperber and Wilson (1986) for an account of this type of disambiguation.

³ This sketch is provisional. We return to the various steps in this chapter and in Chapters 3 and 4.

- (ii) a panel of independent doctors + UNIT 2
⇒_{[UNIT3 a panel of independent doctors [UNIT2 to examine GP [UNIT1 on January 5]]]}
- (iii) appoint + UNIT3
⇒ [_{UNIT4} appoint _{[UNIT3 a panel of independent doctors [UNIT2 to examine GP [unit1 on January 5]]]}]]
- (iv) Mr Straw decided + UNIT4
⇒_{[UNIT5 Mr Straw decided [UNIT4 to appoint [UNIT3 a panel of independent doctors [UNIT2 to examine GP [UNIT1 on January 5]]]]]}.

In order to achieve the reading in (1a), we assemble the sentence rather differently. When we link the string *to examine General Pinochet* with the string *a panel of independent doctors* we do not yet integrate *on January 5*. The temporal specification only comes in later, when we are putting together *decide* with the remainder of the sentence.

- (4) (i) a panel of independent doctors + _[UNIT1 to examine GP]
⇒_{[UNIT2 a panel of independent doctors [UNIT1 to examine GP]]}
- (ii) appoint + UNIT2
⇒ [_{UNIT3} appoint _{[UNIT2 a panel of independent doctors [UNIT1 to examine GP]]}]]
- (iii) Mr Straw decided + UNIT3
⇒_{[UNIT4 Mr Straw decided [UNIT3 to appoint [UNIT2 a panel of independent doctors [UNIT1 to examine GP]]]]}
- (iv) UNIT4 + _[UNIT5 on January 5]
⇒ [_{[UNIT4 Mr Straw decided [UNIT3 to appoint [UNIT2 a panel of independent doctors [UNIT1 to examine GP]]]]} _[UNIT5 on January 5]].

In representation (3), the unit *on January 5* is deeply integrated into the sentence; it is combined early on (in step (i)) with the verb *examine*. In representation (4), the same unit is added at the final stage of the construction of the sentence (in step (iv)). The brackets used in the schematic representations above intend to reflect the level of integration: in (3) *on January 5* is followed by 5 right-hand brackets; in (4) by only 2.

The displays in (3) and in (4) are imprecise. For one thing using labels such as UNIT1, UNIT2 suggests that all these entities are similar in nature, though they have different contributions to the interpretation of the sentence. Also the representations are very difficult to read. They are a complex ways of showing the history of how the sentence is put together and how the interpretations are arrived at. In the remainder of this chapter we will elaborate a more precise and transparent way for representing the structure of sentences and we will also provide tools to determine the structural units.

1.2. Intuitions about structure

In section 1.1. we talked about structure in a fairly intuitive and loose way. We appealed to our linguistic awareness as speakers of English to informally represent some of the structural units that build the sentence with the different interpretations associated to the sentence. We indicated these units by bracketing, [...]. Units of form, i.e. sequences of words, such as *on January 5*, are taken to correspond to units of meaning, the string *on January 5* is a time specification.

Consider a sentence such as (5a). Going by your intuitions as to who does what and when, how would you identify the major meaningful units in this sentence? Represent each unit by using square brackets ([_{UNIT} ...]).

(5) a The customer in the corner will order the drinks before the meal.

Probably, you will have bracketed the string as in (5b):

(5) b [_{UNIT} The customer in the corner] will order [_{UNIT} the drinks] [_{UNIT} before the meal].

Square brackets will from now on be used to demarcate units of structure. We don't have to label each set of brackets as 'UNIT': the very presence of the brackets means that the string of words contained in the brackets is a unit.

(5) c [The customer in the corner] will order [the drinks] [before the meal].

In (5c) the brackets identify three units or **constituents**: (i) *the customer in the corner*, (ii) *the drinks*, (iii) *before the meal*. There is no indication as to how the auxiliary *will* and the verb *order* are integrated into the sentence. In Chapter 1, section 2.2.1, we saw that auxiliaries tend to associate with a verb. We might propose that the auxiliary *will* in (5) forms a unit with the verb *order*. On this assumption, we could formulate the hypothesis that the assembly of the sentence is as in (5d).

(5) d **Hypothesis A**
 [The customer in the corner] [will order] [the drinks] [before the meal].

But others might say that the bracketing in (5d) is counter-intuitive because the verb *order* should first be assembled with the string *the drinks*, which is the direct object of the verb and which refers to the entity affected directly by the action expressed by the verb. If you use the verb *order* you expect to find a direct object: 'order what?' 'Ordering' is an activity that implies there will be some entity being ordered. This relation between *order* and *the drinks* is independent of the presence of the auxiliary *will*: we can use the string *order the drinks* also in the absence of an auxiliary such as *will*:

- (5) a' The customer in the corner orders the drinks before the meal.

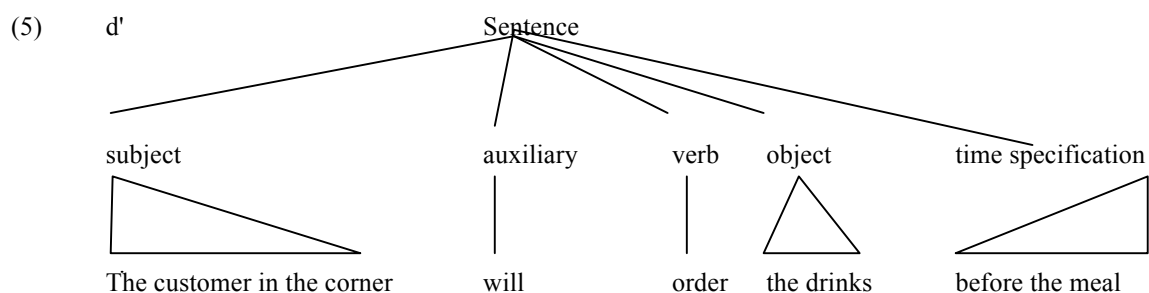
The close relationship between *order* and *the drinks* is not revealed in the bracketing in (5d). How could we represent this relationship between the verb and its object? The bracketing in (5e) is meant to show that the verb *order* and the unit *the drinks* are first assembled to form a unit.

- (5) e **Hypothesis B**
[The customer in the corner] [will] [order [the drinks]] [before the meal].

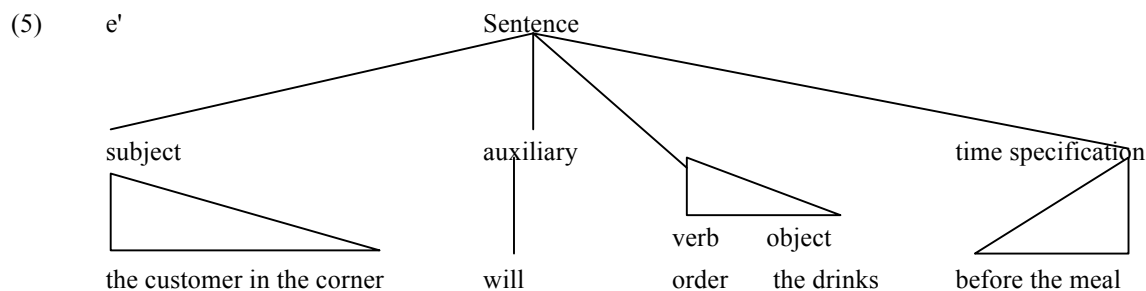
Let us compare (5d) and (5e) and try to make more explicit the claims that the two alternative bracketings make. Having clarified this issue, we will examine the predictions of these claims more carefully.

In the diagrams below we use another format to represent how sentences are built up. This format is called the **tree diagram** format: like bracketing, it schematises how sentences are formed from smaller units. The tree diagrams below correspond to the bracketed representations above, but they allow us to read off more easily how the various parts of the sentence are put together.

According to one representation, (5d)/(5d'), when assembling the sentence, we first assemble the auxiliary *will* and the verb *order*, and then we combine the resulting unit with the other constituents: the subject *the customer in the corner*, the direct object *the drinks*, and the time specification *before the meal*. In the tree, a triangle associated with a constituent is a device to show that the internal make-up of the unit in question is not relevant to the current discussion.



According to the alternative in (5e), the assembly proceeds differently. Here, the verb *order* is first assembled with its object, *the drinks*. Then we combine the resulting unit with the auxiliary *will*, with the time specification *before the meal*, and with the subject *the customer in the corner*.



These structural representations have different implications. For instance, starting from the root of the structure 'Sentence', to reach the object *the drinks* in (5d') you go directly from the root to the unit *the drinks*. This means that, starting from Sentence, the subject *the customer in the corner* and the object *the drinks* are both equally accessible. On the other hand, to reach the object *the drinks* in (5e'), we first have to enter into the unit *order the drinks*. In (5e') the subject *the customer in the corner* is more readily accessible from the root 'Sentence' than the object. From Sentence it takes one single step to reach the subject; it takes two steps to reach the object. The subject is presented as a **immediate** constituent of the sentence, the object is presented as an **ultimate** constituent of the sentence: it is a component of the sentence by virtue of being a component of the unit *order the drinks*, which is itself an immediate component of the sentence. (5e') introduces a subject-object asymmetry, it suggests that the relation between the sentence and the subject is more immediate than that which exists between the sentence and the object. Conversely, according to (5e') the object has a closer relationship with the verb than the subject, since verb and object together form a constituent that excludes the subject.

In what follows we will evaluate the two hypotheses by examining their consequences. Intuitively, both have some appeal, so we cannot simply rely on intuitions to discard one or the other. We will investigate whether there are any criteria that could be used to distinguish between the two ways of integrating the verb into the sentence. In other words, we are trying to elaborate diagnostics for syntactic structure.

In order to elaborate diagnostics for structure, we will look at attested examples to see if the language itself perhaps provides any indications that a particular string of words acts as or is perceived as a unit.

1.3. Substitution

Anaphoric elements, such as, for instance, pronouns, are elements that can be used to replace strings of words.⁴ This is illustrated in (6). The pronoun *he* in (6b) refers to the subject, *the customer in the corner*, in (6a), and the pronoun *them* refers to the object *the drinks*. The constituent that is replaced by a pronoun is its **antecedent**.

- (6) a The customer in the corner will order the drinks before the meal.
 b He will pay for them later.

⁴ See Chapter 1, Exercises 9 and 10.

The fact that the string of words *the customer in the corner* can serve as the antecedent of a pronoun suggests this string is conceived of as a unit; it is a constituent. At first sight, the most important element of this constituent is the noun *customer*. The noun *customer* denotes the entity that we are talking about. A constituent whose most important element is a noun is called a **noun phrase**, abbreviated as **NP**. Typically, noun phrases can be replaced by pronouns. The string *the drinks* is also a constituent: it can be replaced by the pronoun *them*. Because the most important element of the constituent is *drinks*, the plural form of the noun *drink*, the constituent *the drinks* is also a noun phrase.

Before the meal is another constituent, it can be replaced by a word such as *then*. The string *before the meal* contains a noun phrase, *the meal*, which can be replaced by *it* (cf. *before it*). *Before the meal* combines a preposition, *before*, with an NP; it is a **prepositional phrase** (PP). Other examples of prepositional phrases are *in the garden*, *for his brother*, *after the war etc.*

Depending on their core elements, constituents will be of different types: constituents belong to **categories**. The core element of the constituent, which determines its category, is called the **head**. An NP contains a noun (N) as its head, an NP is **headed** by a N.

Based on this conception of constituency, a **verb phrase** is a constituent whose head is a verb. For our test sentence we have elaborated two hypotheses for the identification of the verb phrase (VP): according to (5d) the VP is *will order*, according to (5e) the VP is *order the drinks*. Let us see if substitution of strings containing a verb can help us choose between these hypotheses. Examine how substitution affects verbal units in the examples in (7):

- (7) a If I had wanted to hurt someone, believe me, I would have done. (Elizabeth George, *Missing Joseph*, Bantam Books, 1993, page 172)
- b If Sir Alex wants to sign somebody he can do. (*The Guardian*, 31.12.02, page 14, col. 1)⁵

In these examples the verb *do* serves to replace a verb and its object. In (7a) *done* = *hurt someone*; in (7b) *do* = *sign somebody*. If a verb and its object can be replaced together, this suggests that the relevant string of words is a unit, a constituent.

Consider (8). What does the pronoun *he* refer to? What does the string *do so* stand for?

- (8) The home secretary is under an obligation to examine any evidence of discriminatory treatment. He can only do so through assessment, examination of facts, communication with people and rational arguments and actions. (*Guardian*, 9.9.2, page 11, col.3)

In (8) the pronoun *he* refers to *the home secretary*, an NP. *Do so* stands for *examine any evidence of discriminatory treatment*, i.e., a verb + its direct object.⁶

⁵ Note that the substitution illustrated in (7) may not be accepted by all speakers of English. In particular, speakers of British English accept it more easily than American speakers, and even among British speakers there is variation.

⁶ See also Chapter 1, Exercise 9.

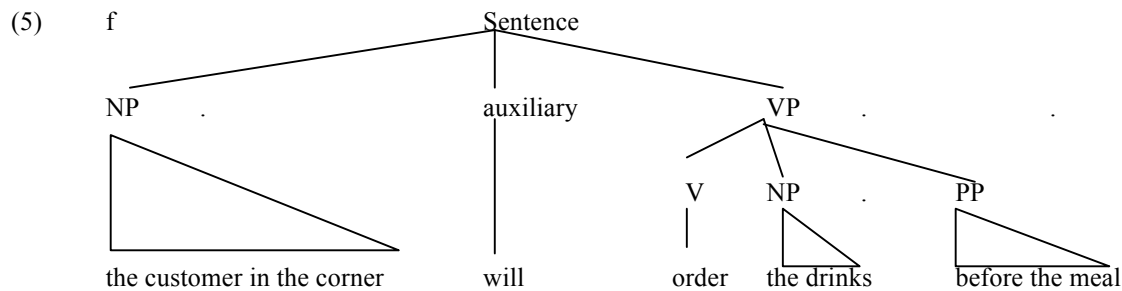
With the examples in (7) and (8) as your models, try to replace a string of words containing the verb *order* in our test sentence (6a) above. In (9), we give some possible results.

- (9) a The customer in the corner will order the drinks before the meal but in order to do so before the meal he will first need a wine list.
b The customer in the corner will order the drinks before the meal but in order to do so he needs a wine list now.
c If the customer in the corner wants to order the drinks before the meal he can do.

Do so in (9a) stands for *order the drinks*. Let us return to the representations for the sentence which we are examining. Representation (5d'), based on hypothesis (5d), is not really compatible with the substitution in (9a). According to (9a) the string *order the drinks* acts as one constituent: it can be replaced by *do so*. But in (5d') the verb *order* does not form a constituent with the object *the drinks*. The constituent that contains the verb is the string *will order*, it is composed of the verb and the auxiliary. On the other hand, representation (5e'), based on hypothesis (5e), represents the verb and the object *order the drinks* as forming a unit. The most important element in this unit is a verb (*order*): it tells us what kind of action is going on. A constituent whose most important element is a verb is a **verb phrase** or **VP**.

Compare (9a) with (9b) and (9c). Which constituents are substituted for in (9b) and in (9c)? In these examples, the substitution process also affects the time specification *before the meal*. *Do so* in (9b) and *do* in (9c) stand for *order the drinks before the meal*. Is this type of substitution predicted by hypothesis (5d) and representation (5d')? Clearly not, since, as we have just seen, according to (5d) the auxiliary *will* and the verb *order* are taken to form a constituent, but the object *the drinks* and the time specification *before the meal* are not represented as being part of that constituent.

However, hypothesis (5e) and its representation (5e') also do not predict that the substitutions in (9b,c) are possible. If substitution identifies constituents, i.e. strings of words that act as units, then the string *order the drinks before the meal* must be a constituent. (5e') does not offer a basis for this substitution: the time specification is not part of the constituent containing the verb. In order to ensure that the unit containing the verb, or the VP, contains the time specification as well, we should integrate the time specification into the constituent headed by the verb, the VP. What we want is something like (5f): We have labelled all constituents according to their category.



In this representation, the string *order the drinks before the meal* as a whole is represented as a VP. From the point labelled VP, three lines link down to three constituents: the verb *order* the object *the drinks*, and the PP *before the meal*. In the tree diagram representation, a point in which a number of lines come together is called a **node**; nodes are given labels to indicate their category. The lines linking nodes in a tree to their constituents are called the **branches** of the tree.

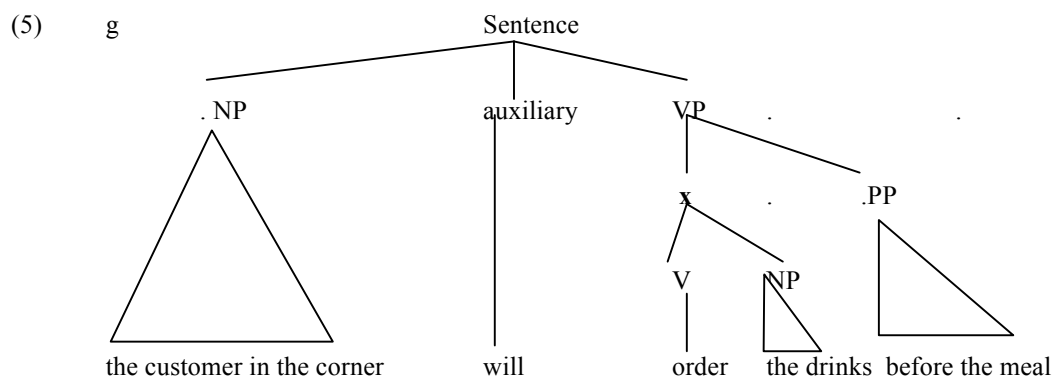
Compare (5f) with (5d') and with (5e'). Does (5f) have more of the properties of (5d') or is it closer to (5e'). To answer this question you should assess the implications the tree would have for the relations of the various constituents to the sentence.

You will probably conclude that like (5e'), (5f) establishes an asymmetry between the subject and the object, linking the object more closely to the verb than the subject, and conversely, relating the subject more directly to the sentence as a whole. The trees (5e') and (5f) differ in the way in which they treat the time specification, that is the PP *before the meal*. According to (5e'), the time specification remains completely outside the VP (*order the drinks*); in (5f) the PP *before the meal* is fully integrated into the VP. We can ask ourselves what the advantages of (5f) are? And also: does it have any drawbacks?

Recall that we assume that syntactic structure determines interpretation. Let us consider the claims made by the different representations above for the interpretation of the relevant strings. When comparing (5f) and (5e'), we observe that in (5e') the verb is assembled with the object, the temporal PP is not part of the resulting verb-object unit. (5e') represents the verb and its object as having a closer relationship than that which holds between the verb and the time specification. Such an asymmetry between the object NP and the temporal PP seems intuitively plausible: the action described by the sentence is 'ordering drinks'. The time of that action is additional information that does not alter the nature of the action: ordering drinks before a meal or during a meal remains the same kind of activity. (5f) suggests that the verb is assembled with its object and with the time specification at the same time. Such a representation of the structure of the sentence fails to reflect any asymmetry between the object NP and the time PP. In (5f) the hypothesis seems to be that the time PP is automatically part of the VP.

What prediction do the representations make for substitution? One prediction of (5f) is that whenever you replace a constituent containing the verb (=a verb phrase), this will automatically affect the PP *before the meal*. Or, phrasing the prediction differently: it should not be possible to simply replace a unit consisting of the verb *order* and its object *the drinks*. Is this prediction correct? If you turn back to the examples of substitution in (9), you will conclude that (5f) is incompatible with (9a), while (5e') is compatible with this example.

Having already discarded (5d'), we still have a problem to define what should be the appropriate representation of the sentence. We find ourselves in a sort of paradox. To account for the substitutions in (9b,c), we would favour (5f). To account for the substitution in (9a), we would favour (5e'), because the latter representation captures the closer relation between verb and object. What we need then is a more articulated representation with a VP that singles out the verb and the object, excluding the PP, and which at the same time allows the verb, the object and the PP to be a unit. This can be achieved if we assemble the VP step by step: first we assemble the verb and its object, then we assemble the resulting unit with the time specification:



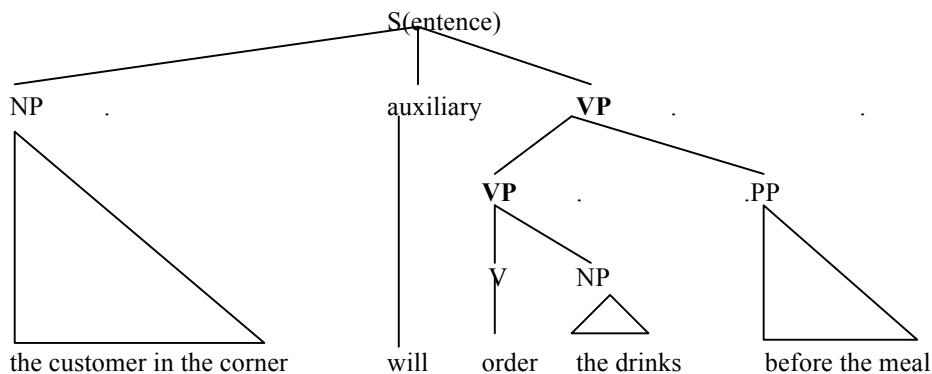
(5g) combines the good points of (5e') with those of (5f). Substitution can pick either the unit *x*, composed of [V+NP], (as in (5e')) or the unit labelled VP, composed of [V+NP+PP], (as in (5f)). (5g) introduces a **hierarchy** internally to the VP: the object is 'closer' to the verb than the time specification.

What kind of label should we give to the constituent *order the drinks*? Its core element is a verb, and substitution is by means of *do* or *do so*, typically verb phrase substitutes. This suggests that this constituent is also a VP. The structure we end up with has what is called a **layered VP**. First, we construct the **core VP**, the central layer containing the verb and its object. Then we extend this layer with a time specification by adding the PP *before the meal*, creating a larger constituent. If we assume that the structure of a sentence is related to its meaning (as we have to do in order to account for structural ambiguity), then the layered VP should feed into the interpretation. Such a layered structure implies that a time specification is less central to the activity expressed by the verb than the object. This consequence of the structure mirrors our intuitions about interpretation: a time specification such as *before the meal* does not define the kind of activity denoted by the VP, but it merely provides accessory information on the timing of that activity.

In (5h) we provide both the tree representation and the labelled bracketing representation for the structure of the sentence. In the latter, the labels in the left-hand corners identify the category of the constituent. (5h) contains two nodes labelled VP, one of which immediately above the other. What is the head of the lower VP? What is the head of the higher one? For both constituents, the related head is the verb *order*. It is not the case that there are two distinct VPs in this structure. Rather, we have one core VP augmented with an

extra constituent, the time specification. The time specification is not central to the information conveyed by V. It can be omitted.

(5) h **Hypothesis B (revised)**
Tree diagram



Labelled bracketing

[s [NP the customer in the corner] [will]
[VP [VP order [NP the drinks]] [PP before the meal]]].

The argumentation above introduces two kinds of motivations for adopting the layered structure with the double VP node. On the one hand, the representation is motivated on **empirical** grounds: we have shown the need for introducing the layered structure by looking at substitution data. The structure is also motivated by the general hypothesis that the structure of a sentence is related to its interpretation. The latter is a **theoretical** hypothesis; we could also say that the second argument is **conceptual**, since it follows from the way we have conceived our theory. Both types of argumentation contribute to the analysis. When formulating an argumentation, it is important to be able to identify which type of reasoning has been used.

1.4. Movement

In a neutral sentence, the subject typically precedes the verb and the object follows it. The preverbal position of the subject and the post-verbal position of the object are called their **canonical** positions. Identify the direct objects in the sentences in (10). You will observe that objects do not always occupy their canonical positions. Some objects have been moved to a different position. Try to restore any displaced objects to their canonical positions.

- (10) a Baxter said that he had been using a *Sinex* liquid decongestant...but then spotted the *Vicks* inhaler when shopping in Park City, and bought it since he preferred to use it. 'The British one, I have been using since I was about nine.'
(*Guardian*, 22.3.2, page 3, col.1)

- b The news, when it comes, he seems to take well enough. (*Guardian*, G2, 26.7.2, page 2, col.1)

As you can tell, two direct objects have been shifted to the beginning of the sentence.⁷ If we restore them to their canonical positions we arrive at the following:

- (10) a' I have been using the British one since I was about nine.
b' When it comes, he seems to take the news well enough.

The underlined strings of words in the primed (10a,b) are constituents. They can be replaced by pronouns.

- (10) a" I have been using it since I was about nine.
b" When it comes, he seems to take it well enough.

Typically, constituents can be moved around in the sentence. Consider (11a). What is the subject related to the verb *think*? What is the subject of *are just a vast conspiracy to divorce you from ordinary life*? Do these subjects occupy their canonical positions?

- (11) a A lot of the elements that surround you in the job, you sometimes think are just a vast conspiracy to divorce you from ordinary life. (*Guardian* 26.4.2, G2 page 6, col.4)

In (11a) the subject of the verb *think* is the pronoun *you*; it occupies its canonical preverbal position. The subject of *are a vast conspiracy* is the noun phrase *a lot of elements that surround you in the job*. This subject is not in the expected position, to the left of *are*. It has apparently been shifted leftward. We can restore it to its canonical position as follows:

- (11) b You sometimes think a lot of the elements that surround you in the job are just a vast conspiracy to divorce you from ordinary life.

Identify the displaced constituent in (11c), identify its category, and restore it to its canonical position:

- (11) c Our dustmen arrive too early for me to check, but our fishmonger and his staff in Petersfield all wear ties (Letters, October 22) and very smart they look too. (Letters to the Editor, David Dew, Horndean, Hants, *The Guardian* 23.10.2, page 9, col. 5)

⁷ For the interpretive effect of preposing constituents see Ward (1988) and the references cited there. See also Reinhart (1981), Authier (1992), Rizzi (1997).

In this example the string *very smart* has been fronted, its canonical position is to the right of the verb *look* (*they look very smart too*). *Very smart* has as its main component the adjective *smart*. A constituent headed by an adjective is an **Adjective phrase** or AP.

Let us return to our initial example (5a). Is it possible to displace the direct object or the time specification?

- (12) a The drinks, the customer in the corner will order before the meal (but the dessert, they will order later).
b Before the meal, the customer in the corner will order the drinks.

In English, the order in which the subject precedes the verb and the object follows it is the unmarked word order.⁸ Fronting of a constituent gives rise to a special or **marked** word order, i.e. an order that deviates from the neutral order. We assume that creating a pattern that deviates from the normal neutral word order is an additional operation. Recall that we proposed that language is guided by a principle of economy. In Chapter 1, section 2.2.3, we proposed that units are only inserted if they have some impact on the interpretation of the sentence. We illustrated this hypothesis by the discussion of the use of the auxiliary *do*. We could extend the application of the principle of **economy** by proposing that operations that rearrange constituents also have to be associated with some particular interpretive effect. If they were not, then, by virtue of the principle of economy, there would be no point in performing the operation. In other words, a non-neutral or marked order will be associated with some difference in interpretation. For instance, the fronted object in (12a) give rise to some contrasting effect: we contrast *the drinks* and *the dessert*. When we front a time specification (12b), we organise the information in the sentence according to temporal information. In the following examples, the authors are exploring the possibility of fronting constituents. Identify the fronted constituents. Restore them to their canonical position. What is the category of the fronted constituents?

- (13) a 'They must talk about it, and talk about it they must', he said. Food for thought, there! It's a phrase that could add a measure of gravity to any press conference. 'We must do this, and do this we must.' (*Guardian*, 29.1.3, page 2, col.5 (Simon Hoggart))
b But I was still a long way from figuring out what my goal was. I told the governor [of the prison] that I wasn't sure how I was going to manage it – but manage it I would. (*Guardian*, G2, 15.5.3, page 7, col.4)

⁸ The unmarked order is the neutral word order. Marked word orders are less neutral in that they carry some specific communicative effect. For instance, the word order in sentence (ia) is unmarked: the object NP *this book* follows the verb *like*. In (ib) fronting of the object NP *this book* gives rise to a marked word order. This example could be used, for instance, if the speaker wants to contrast the book under discussion with another book.

(i) a I didn't like this book very much.
b This book, I didn't like very much (but that one I really enjoyed).

For discussion of the concept markedness and its relation to interpretation see De Hoop et al (2004). For the interpretive effect of preposing constituents see Ward (1988).

In (13a) the author fronts *talk about it* and *do this*, and in (13b) *manage it* is fronted. Since these strings are constituents whose most important element is the verb, they are verb phrases:

- (13) a' 'They must talk about it, and [_{VP} talk about it] they must,' he said. Food for thought, there! ...'We must do this, and [_{VP} do this] we must.'
b' I told the governor [of the prison] that I wasn't sure how I was going to manage it – but [_{VP} manage it] I would.

Let us return to our test example, (5a). On the basis of the structural representation of the sentence, we should be able to predict how VP fronting will apply. In representation (5h), there are two nodes labelled VP: the core VP and the augmented VP including the temporal specification. Try fronting either of these. You will find that both operations give an acceptable result:

- (14) a Order their drinks before the meal, they will.
b Order their drinks, they will before the meal.

The data in (14) provide empirical support for the structure in (5h). Would the fronting data in (14) be compatible with the other representations that we had envisaged that is (5d'), (5e') and (5f)? Adopting (5d') would pose a problem: in that representation there is no constituent containing the verb and the object (14a) or the verb, the object and the time specification (14b). (5e') fares slightly better in that it allows (14b) but it does not allow (14a). Conversely, (5f) allows (14a) but not (14b). So (5h) represents a better hypothesis about the structure of the sentence.

1.5. Question formation

Invent an answer to the questions in (15):

- (15) a Who have you invited to the party?
b Who has invited you to this meeting?
c What have you bought?
d An Indian meal or fish and chips. Which do you prefer?

When you think up answers to the questions above, it is quite possible that you will come up not just with one word but with a string of words. The relevant string of words functions as a unit in the communicative exchange: it provides the answer to the question. An answer to a question will fill in the missing information that is represented in the question by words such as *what*, *who*, *which*. As discussed in section 1.3, strings of words that are replaced by one word are constituents. For instance, take (15a). A possible answer could be:

(16) a My friends from college.

Question (15a) implies that 'you have invited someone', and it signals that the speaker doesn't know who the invitee was. (16a) supplies the missing information: it supplies a replacement for the interrogative word *who*. Questions which ask for a replacement of an interrogative constituent, are called **constituent questions**: the answer to such questions supplies the missing constituent. Because most interrogative words in English begin with *wh*, such questions are also called **wh-questions**, and interrogative constituents such as *who*, *what etc* are called **wh-constituents**.⁹

(16b) inserts the answer to (15a) into the sentence. Compare the form of question (15a) and the form of the answer, (16b).

(16) b I have invited [my friends from college].

(15a) differs from (16b) in a number of ways. (i) In (15a) the direct object is realised as a *wh*-constituent, *who*. (ii) This (interrogative) direct object of the verb *invited* does not occupy its canonical position but it takes up an initial position. (iii) There is an application of subject auxiliary inversion (SAI, see also Chapter 1, section 2.2). Of particular relevance to the current discussion is the observation that in the answer the interrogative constituent of the question is replaced by the constituent (here *my friends from college*). We can conclude that another technique for identifying constituents is to examine whether the strings of words that are taken to be constituents can serve as answers to questions.

Formulate constituent questions to target each of the underlined constituents in our test sentence:

(17) a The customer in the corner will order the drinks before the meal.

Recall that we also identified a constituent centred around the verb. How is the VP questioned in (18)?

- (18) a I think that would be the worst thing in the world for him, a family holiday. What's he going to do? Sit on the beach? (based on *Guardian*, G2, 29.7.2, page 4, col.3)
- b What is Sylvia to do? What are we all meant to do? Hang our cars from the trees? Throw them away? (*Guardian*, G2, 28.4.3, page 9 col.3)
- c 'We need fewer people.' 'What would you do? Eliminate people?' (based on a cartoon in the *Washington Post*, 29.4.3, page C12)

As you can see, verb phrases can function as targets for *wh*-questions. In our test sentence (5a), repeated in (17a) above, we identified a core VP (*order the drinks*) and what we labelled an augmented VP (*order the drinks before the meal*). Using the examples in (18) as a model,

⁹ We look more carefully at the fronting process involved in the formation of *wh*-questions in Chapter 5.

try to formulate questions targeting either of these VPs. Based on (17a) you could form either of the following questions:

- (17) b What will the customer in the corner do before the meal?
c What will the customer in the corner do?

Wh-questions confirm that the strings *order the drinks* and *order the drinks before the meal* are constituents: each string can be the answer to a *wh*-question.

1.6. Deletion/ ellipsis

Consider the following fragments. In the second part of each extract some material has been omitted. The site of the ellipsis is to the right of the underlined words. Supply the words that have been omitted. On what basis can you recover the omitted material?¹⁰

- (19) a It is up to us other teams to take steps to rectify our performance deficiency, and we will. (*Guardian*, 8.10.2, page 15, col.7)
b When he first ran for office four years ago, Gov. Gray Davis vowed to save California's old-growth forests. He hasn't, as Moloney sees it. (*Los Angeles Times*, 26.11.2, page B7, col.2)
c After all, Francesca 's hardly news any more. We are all trying to forget her. As if we could. Although we should. I can't. (Francis Fyfield, *Undercurrents* Warner books 2001, p. 50)
d I saw Mr Clark stand up, throw a punch at Mr McAlpine, kick the table over, jump at him on the ground, and start choking him, before two chefs came out of the kitchen and pulled them apart...We have an open-plan kitchen, and so my staff jumped in and separated them; I wouldn't like to think what would have happened if they hadn't. (*Guardian*, 11.11.2, page 9, col.4)
e All in the name of a pretence that, with just a little bit more time passing, all obstacles will miraculously recede. They won't. (*Guardian*, 6.5.3, page 16, col.2)
f Only those who were in the room know the absolute truth of this story. No one else probably ever will. (*Washington Post*, 25.3.4, page D3, col.5)
g If we could charge more money, we would. (*Wall Street Journal*, 29.3.4, page A6, col.6)
h Everyone says you can't be scientific and fun, but we think you can. (*New York Times*, 8.3.4 page C5, col.2)

In these examples a constituent that is recoverable from the preceding context has been omitted. For instance, in (19a) we can recover the string *take steps to rectify our performance*

¹⁰ See also Chapter 1, Exercise 8.

deficiency from the preceding sentence. In each of the examples, the auxiliary is retained and a constituent centred around the verb is omitted. We restore the omitted strings in (19'):

- (19') a We will [_{VP} take steps to rectify our performance deficiency].
b He hasn't [_{VP} saved California's old-growth forests].
c As if we could [_{VP} forget her]. Although we should [_{VP} forget her]. I can't [_{VP} forget her].
d I wouldn't like to think what would have happened if they hadn't [_{VP} jumped in and separated them].
e They won't [_{VP} miraculously recede].
f No one else probably ever will [_{VP} know the absolute truth of this story].
g we would [_{VP} charge more money].
h you can [_{VP} be scientific and fun].

Let us once again turn to representations (5d') and (5h). By adopting (5h), we can straightforwardly describe the processes applying in (19) as an illustration of verb phrase ellipsis. If we adopt (5d') we cannot describe the process in (19) as VP ellipsis: in (5d') the auxiliary and the verb form a constituent and the object remains outside this constituent.

Taking (20a) as a basis, how could VP ellipsis be applied to B's reply?

- (20) a Speaker A: The customer in the corner will order the drinks before the meal.
Speaker B: Actually, I wouldn't be so sure that he will order the drinks before the meal.

The application of VP ellipsis to (20a) is given in (20b), where the symbol [_{VP} Ø] stands for the omitted VP.

- (20) b Speaker A: The customer in the corner will order the drinks before the meal.
Speaker B: Actually, I wouldn't be so sure that he will [_{VP} Ø].

1.7. Focalising a constituent

1.7.1. THE CLEFT SENTENCE

In the following examples, a special word order pattern is used which has the effect that one constituent is promoted to the foreground while the remainder of the sentence is backgrounded.

- (21) a It was the prison chaplain's wife who first gave me an inkling that I might have a talent for writing. (*Guardian*, G2, 21.4.3, page 2, col.1)
b Ford directed many films but it is for Westerns that he will be remembered. (*Guardian*, 21.4.3, page 310, col.4)

Both examples contain the pattern *it is X who/that Y*. In this pattern, the element in the position of X is highlighted. It is presented as prominent information. The elements in Y are backgrounded. Consider for instance (21a). We can paraphrase it with (21a').

- (21) a' The prison chaplain's wife first gave me an inkling that I might have a talent for writing.

The word order in (21a') is neutral. (21a') does not give the same prominence to the constituent *the prison chaplain's wife* as the original example, (21a). The information conveyed by the two variants is similar: both sentences communicate that at some point in the past the prison chaplain's wife gave the speaker the idea that he might be a good writer. Sentences (21a) and (21a') describe the same event. Could you imagine a situation in which (21a) is true and (21b) is false? This is not possible. If (21a) is a true statement, then (21b) will also be true and vice versa. The effect of the rewording in (21a) is 'presentational': we reorganise the way the information is presented. In (21a) the writer highlights that the initial trigger for the speaker's writing was the chaplain's wife.

The wording of (21a) serves to focus on a particular constituent and to background the remainder of the sentence. The pattern where we focus on a constituent using the *it is X who/that Y* pattern is called a **cleft** sentence. Clefting is a way of reorganising the information in a sentence, backgrounding some information and foregrounding the focal information. As you can see, clefting foregrounds or focuses a constituent: in (21a) the NP *the prison chaplain's wife* is singled out or focused; in (21b) the PP *for Westerns* is focused.

Given that clefting promotes one constituent to the foreground, we can use the pattern to identify constituents. Apply clefting to our test sentence. Again you will find that it serves to isolate constituents: in (22a) the NP *the customer in the corner* is focused, in (22b) the PP *before the meal* is focused, and in (22c) the NP *the drinks* is focussed.

- (22) a It is [NP the customer in the corner] who will order the drinks before the meal.
b It is [PP before the meal] that the customer in the corner will order the drinks.
c It is [NP the drinks] that the customer in the corner will order before the meal.

Recall that we have been entertaining two hypotheses for the representation of the sentence: either the auxiliary and the verb form a constituent (23a), or else the verb forms a constituent with its object. On the basis of additional evidence, we elaborated the latter option and proposed that the VP was layered (23b).

- (23) a **Hypothesis A**
[S [NP The customer in the corner]
[VP will order] [NP the drinks] [PP before the meal]].
b **Hypothesis B (revised)**
[S [NP The customer in the corner]
[AUX Will] [VP [VP order [NP the drinks]] [PP before the meal]]].

The cleft patterns in (22) do not bear on (23a) and (23b), because clefting of the type illustrated here does not affect the VP.¹¹

1.7.2. THE PSEUDO-CLEFT SENTENCE

Consider the effect of the rewordings in the paired sentences in (24)-(27).

- (24) a I don't need the equivalent of another car loan.
b What I don't need is the equivalent of another car loan. (*Chicago Tribune*, 22.12.2, Section 15, page 3, col.1)
- (25) a You are seeing the biblical law of reciprocity in Prince George's Country.
b What you are seeing in Prince George's Country is the biblical law of reciprocity. (*Washington Post*, 29.4.3, page A7, col.2)
- (26) a She needed someone to talk to.
b What she needed was someone to talk to. (*Washington Post*, 29.4.3, page B1, col2)
- (27) a They will force them underground.
b What they will do is force them underground. (*Guardian*, 9.7.2, page 8, col.8)
- (28) a Contacting his relatives will cause mayhem in his family.
b What contacting his relatives will do is cause mayhem in his family. (adapted from *Guardian*, G2, 11.4.3, page 11, col.3)

As was the case with the clefting paraphrase discussed in section 1.7.1, the content of the paired sentences is near identical. Both sentences in (24), for instance, convey that 'there is no need for the equivalent of another car loan'. As was also the case in the clefting paraphrases, the two sentences have the same truth conditions. If (24a) is a true statement, then (24b) will also be a true statement. The difference is again one of presentation and focus. (24b) serves to highlight one informational unit, here the NP, *the equivalent of another car loan*, and it does so by splitting this constituent off from the remainder of the sentence using a paraphrase with *what*. The pattern displayed here is referred to as **pseudo-clefting**. Identify the focused constituents in the (b)-examples (26)-(28). What is their category?

- (26)' c What is surprising is the weakness of international legislation.
- (27)' c What they will do is force them underground.
- (28)' c What contacting his relatives will do is cause mayhem in his family.

In (26) the focused constituent is an NP. In (27) and (28) it is a constituent centred around a verb, a VP (*force them underground*, *cause mayhem in the family*). Do examples (27) and (28)

¹¹ This is not quite correct: in Hiberno English, the variant of English spoken in Ireland, VPs can be clefted. (Cottell 2002: 111)

(i) Q. What are the women doing?
A. It's playing backgammon that they are.

bear on the choice between representations (23a) or (23b)? What would (23a) predict with respect to pseudo-clefting of a VP? And what would be the predictions of (23b)?

Using examples (27) and (28) as models, let us also apply pseudo-clefting to our test sentence. Could (23a) constitute a basis for pseudo-clefting of a verb-centred constituent? That is, can we use pseudo-clefting to highlight the VP as represented in (23a)? The answer is that it is not possible to pseudo-cleft the VP as represented in (23a):

(29) a *What the customer in the corner will do the drinks before the meal is will order.

On the other hand, (23b) has two constituents labelled VP: *order the drinks*, the core VP, and *order the drinks before the meal*, the augmented VP including the time specification. Try pseudo-clefting either of these. Either VP can be focused by pseudo-clefting.

(29) b What the customer in the corner will do before the meal is order the drinks.
c What the customer will do is order the drinks before the meal.

Once again, the layered VP hypothesis of (23b) allows us to predict that pseudo-clefting will affect a constituent centred around the verb, containing the direct object and possibly the time PP. If we adopt representation (23a), it is hard to account for the fact that the verb and the constituents to its immediate right can be treated as one constituent and undergo pseudo-clefting. In (23a), the verb is taken to form a constituent with the auxiliary and the object and the time PP are separate constituents.

Identify the highlighted constituent in the following examples. Do the examples bear on the choice between (23a) and (23b)?

(30) a In the Lower 48 states, people consider reindeer as pets, so the last thing they would do is eat them. (*Chicago Tribune*, 22.12.2, section 1, page 16, col.1)
b All Pastor Edgar Chacon wanted to do, he says now, was protect the children. (*Los Angeles Times*, 26.11.2, page B4, col.4)
c All we can do is do it well. (*Guardian*, 1.11.2, G2, page 9 col.2)

As before, in (30) we focus on a verb-centred constituent, containing the verb, its object and an additional specification of manner in (30c). The sentences in (30) are again best compatible with the representation in (23b).

1.8. Co-ordination

As units of structure, constituents can be manipulated in various ways. So far we have illustrated that we can replace a constituent by a shorter form (1.3), that we can move a constituent around (1.4), that a constituent can function as the answer to a question (1.5), that we can omit a constituent (1.6) and that we can highlight a constituent by clefting (1.7.1) or

by pseudo-clefting (1.7.2). Sometimes, we may decide to link two constituents together. To do this we **co-ordinate** them, i.e. we link them by means of a **co-ordinating conjunction** (*and, or, but*).

(31a) contains two sentences. There is some redundancy in this passage. Identify the overlapping parts between the sentences. Reword the passage to express the information in (31a) in a more compact way, using only one sentence.

- (31) a The customer in the corner will order the drinks before the meal. He will also order the dessert before the meal.

We can condense the information in (31a) into one sentence by co-ordinating the object of the first sentence, the NP *the drinks*, and the object of the second sentence, the NP *the dessert*, thus turning these two NPs into one constituent: *the drinks and the dessert*. To do this, we use the conjunction *and*. As a result of the co-ordination, the constituents form one single constituent, as represented by the outer brackets surrounding the co-ordinated NPs:

- (31) b The customer in the corner will order [[_{NP} the dessert] and [_{NP} the drinks]] before the meal.

What type of evidence could we provide that the string *the dessert and the drinks* in (31b) is one constituent? One way of showing that the string *the dessert and the drinks* is one constituent is by asking a constituent question targeting just this string (31c). The string can also be replaced by a pronoun (31d).

- (31) c What will the customer in the corner order before the meal?
d The customer in the corner will order them before the meal.

Since the co-ordinated constituent can jointly be replaced by a pronoun, *them*, this suggests that the string is an NP, which is the result of co-ordinating two NPs.

How could (32a) be expressed more economically by using co-ordinated structures?

- (32) a The customer in the corner will order the drinks before the meal. He will also order the dessert before the meal. He will also order the coffee before the meal.

In (32a) there are three constituents that function as the object of *order*: *the drinks, the dessert, the coffee*. They can again be co-ordinated. When we have more than two elements to co-ordinate there are two options, illustrated in (32b) and (32c)

- (32) b The customer in the corner will order the drinks and the dessert and the coffee before the meal.
c The customer in the corner will order the drinks, the dessert and the coffee before the meal.

Underline all the co-ordinated constituents in the examples in (33), and identify the category of each of the co-ordinated constituents.

- (33) a. Det. Insp. Smith told lies in one of his reports and to the enquiry. (*Guardian*, 15.7.3, page 1, col.7)
- b. Being in Europe does tend to mean that public transport is functional, that public health care is not considered a dangerous pipe-dream, and that education is valued. (adapted from *Guardian*, 9.12.2, page 12, col.3)
- c. Among the larger issues here are why this happened at all, who allowed it to happen and why the law reinforcement establishment refused to intervene even after it was clear that a great injustice was occurring. (*New York Times*, 28.4.3, page A 25, col.1)
- d. Many parents with children in these schools have felt the impact and seen the point. (*Guardian*, 17.7.2, page 2, col.3)
- e. They are also re-equipping six Iraqi hospitals that were looted and building a plant in Basra. (*New York Times*, 28.4.3, page A11, col.6)
- f. He has made its programs newsworthy and kept the institution afloat. (*New York Times*, 28.4.3, page A25, col.4.)
- g. Jones said urban sprawl and heightened environmental concerns were imposing increased limits on U.S. military activities in Western Europe and driving up costs. (*Washington Post*, 29.4.3, page A6, col.3)
- h. Boyle testified that she told Malvo four times that he could be silent or see an attorney but that Malvo continued to talk about the shootings in a relaxed, almost convivial way, laughing about Buchanan's slaying and other shootings. (*Washington Post*, 29.4.3, page B1, col.3-4)

In (33) we find the following illustrations of co-ordination:

- (33) (i) PP co-ordination
[_{PP} in one of his reports] + [_{PP} to the enquiry] (a)
- (ii) NP co-ordination
- [_{NP} urban sprawl] + [_{NP} heightened environmental concerns] (g)
- [_{NP} Buchanan's slaying] + [_{NP} other shootings] (h)
- (iii) sentence co-ordination
- [_S that public transport is functional] + [_S that public health care is not considered a dangerous pipe-dream] + [_S that education is valued] (b)
- [_S why this happened at all] + [_S who allowed it to happen] + [_S why the law reinforcement establishment refused to intervene even after it was clear that a great injustice was occurring] (c)
- [_S that she told Malvo four times that he could be silent or see an attorney] + [_S that Malvo continued to talk about the shootings in a relaxed, almost convivial way, laughing about Buchanan's slaying and other shootings] (h)
- (iv) VP co-ordination

- [VP felt the impact] + [VP seen the point] (d)
- [VP re-equipping six Iraqi hospitals that were looted] + [VP building a plant in Basra] (e)
- [VP made its programs newsworthy] + [VP kept the institution afloat] (f)
- [VP imposing increased limits on U.S. military activities in Western Europe] + [VP driving up costs] (g)
- [VP be silent] + [VP see an attorney] (h)

Do the co-ordination data in (33) bear on the choice between Hypothesis A (23a) and (revised) Hypothesis B (23b) for the structure of the VP? In particular, would Hypothesis A in (23a) lead us to expect the patterns of VP co-ordination displayed in (33)? The answer is negative. In (33d), for instance, co-ordination affects two constituents consisting of a verb and the object. Crucially, the auxiliary remains outside the co-ordinated structure.

Recall that the revised hypothesis B in (23b) allows for layering inside the VP: the verb and the object form a core VP, which then combines with less central material, the time specification in our earlier example. If VPs can co-ordinate, then we predict that for our test example two types of VP-co-ordination are possible, one affecting the augmented VP, one affecting just the core VP. Discuss the relevance of the co-ordinations in (34) for this prediction.

- (34) a The customer in the corner will order the drinks before the meal and accompany his guests into the dining room.
- b The customer in the corner will order the drinks and choose the dessert before the meal.