UNIT 2 TYPES OF CLAUSES AND SENTENCES

Structure

2.0   OBJECTIVES

The objectives of this unit are that at the end of this unit you should be able to:

- distinguish between a clause and a sentence, and identify the complementizer of a clause,
- identify different types of clauses,
- analyse the structure of a complex sentence in terms of its main and subordinate clauses,
- identify the coordinate clauses and the conjunction(s) in a compound sentence.

2.1   INTRODUCTION

2.1.1   Clauses and sentences

In Unit 1, we have been introduced to the notion of a "syntactic constituent". In this unit, we take a special syntactic constituent, namely, the **clause**, and examine how it serves as a basic building-block for the largest kind of syntactic constituent, namely, the **sentence**. We shall see that there can be different kinds of sentences based on the number and patterning of the clauses that make up those sentences.

The term *clause* in English is from the Latin term *clausus*, which means 'closed' (from the Latin verb *claud-ere* 'to close'). A clause is a "closed" syntactic constituent in a special sense. In English, its most central constituent is the verb that belongs to it. This verb, and all the possible noun phrases and prepositional phrases that the verb must occur with, constitute the clause. There is no further noun phrase or

prepositional phrase that is needed: in that sense the clause is complete, "closed". Examples illustrative of different kinds of clauses are given in (1) below, with the clause underlined:

(1)   a.   <u>The sky is blue</u>.
        b.   Sita knows [<u>that the sky is blue</u>].
        c.   Sita wants [<u>her sister to be intelligent</u>].
        d.   I saw [<u>Hari teaching the seventh-standard students</u>].

Note that the sentence (1a) consists of a single clause. However, the sentences (1b), (1c), and (1d) each consist of something more than just a single clause. Actually, these three sentences are each made up of two clauses. The underlined clause in each is an example of a **subordinate clause**, or an **embedded clause**. The part of each sentence that is not underlined, however, is what "supports" the subordinate (or embedded) clause: if it were not there, the subordinate clause could not occur by itself. Note, moreover, that that part also contains a verb of its own, along with a subject, and that the object is (as a first approximation) the subordinate clause. That part of the sentence is therefore also called the **main clause** or **principal clause**.

A sentence that consists of a single clause is a **simple sentence**. Thus, the sentence (1a) is a simple sentence. A simple sentence has at most one main verb. If we encounter more than one main verb in a sentence, we must immediately conclude that the sentence is not a simple sentence.

By contrast, a sentence that consists of a main clause and one or more subordinate clauses is a **complex sentence**. The sentences (1b), (1c), and (1d) are thus complex sentences. We find more than one main verb in each of these sentences, which leads us to identify two clauses: a main clause and a subordinate clause. A sentence may have a subordinate clause embedded in another subordinate clause, as in (2a), and may even have that subordinate clause embedded in another subordinate clause, ... to an indefinite extent, as the sentence from a children's verse given as (2b) shows. (Every alternate clause, beginning with the main clause, is underlined; each subordinate clause is enclosed in a pair of square brackets, [ ].)

(2)   a.   <u>I doubt</u> [that Sita knows [<u>that the sky is blue</u>].
        b.   <u>This is the dog</u> [that chased the cat [<u>that killed the rat</u> [that ate the malt [<u>that lay in the house</u> [that Jack built]]]]].

The only limit to the number of clauses in a complex sentence is, as far as is known today, the length of the sentence that can be retained in short-term memory by a speaker or hearer. (This is in fact why we have trouble making sense of long, complicated sentences in a written text or in a formal speech.) Now consider sentences of the kind shown in (3a-c):

(3)   a.   [<u>There are clouds in the sky</u>], and [it is raining].
        b.   [<u>He worked very hard</u>] but [he could not clear the final examinations].
        c.   Either [<u>the sun rises in the east</u>] or [the moon is made of green cheese].

Each of the sentences (3a), (3b), (3c) contains two clauses, but neither clause is embedded within the other clause; instead, they are "joined" by one or more special words such as *and*, *but*, *either ... or*. These special words belong to the part of speech called **conjunction**, i.e., they are **conjunctions**. In the sentences above, the two clauses are said to be **conjoined** clauses or **co-ordinate** clauses. Such sentences are examples of **compound sentences**, the third sub-type of sentence besides simple sentences and complex sentences.

We shall examine different clause and sentence types in more detail in Sections 2.2 and 2.3, below.

In the following subsection, we examine certain features of two salient kinds of subordinate clauses. There is also a special kind of sentence as well as embedded clause that syntactically behaves rather differently from the other kinds in a number of respects, and has a special significance in generative grammar. Questions, both simple questions and embedded questions, form this special sub-type of clauses and sentences. We discuss these in subsection 2.1.3.

2.1.2 Relative clauses, complement clauses and complementizers

Let us examine the sentence (2b), above. The embedded clauses in (2b) are instances of **relative clauses**, clauses that "relate to", or say something more about, an entity such as a house, a sack of malt, a cat, a dog, or even a group of human beings. Further examples of relative clauses are the embedded clauses in (4a) and (4b):

> (4)   a.   The man [who came here yesterday] is Hari's brother.
>   b.   I can't find the knife [with which you slice onions].

A relative clause typically contains an expression that refers to the entity that the clause modifies: this expression is a **relative pronoun**, and it may occur with a preposition such as *with* as in (4b). In (4a), the relative pronoun is the word *who*, referring to *the man*. In (4b), the relative pronoun is the word *which*, referring to *the knife*. A relative pronoun is often the same as the corresponding question word (*who? which (one)?*), but it is not always the same, e.g., the relative pronoun *that* occurs in each of the embedded clauses in the sentence (2b) (*This is the dog [that chased the cat [that killed the rat [that ate the malt ...]]]*).

The other salient kind of embedded clause, of which the embedded clauses in (1b), (1c), (1d), and (2a) are examples, is the **complement clause**. A complement clause "complements" the main verb of the clause in which it is embedded, i.e., it occurs as a subject, object or prepositional object complement of the verb of that clause. Thus, in the sentence (1b) (*Sita knows [that the sky is blue]*), the clause [*that the sky is blue*] is the direct object complement of the main verb *knows* of the main clause. What about the word *that* in this complement clause--is it the same as the relative pronoun *that* in (2b)? As it happens, *that* is not a relative pronoun in (1b): note that there is no entity being modified by the complement clause [*that the sky is blue*]. Instead, the word *that* "introduces" what the clause expresses as being the complement of the main-clause verb *knows* -- it marks the clause as being a special kind of complement clause, the object complement of the verb *knows*. The word *that* in (1b) is therefore a **complementizer**.

2.1.3   A special kind of sentence: Questions, Wh-Movement, and Wh-Traces

Questions form a special sentential type in English, and therefore need special attention. Consider the following sentences:

> (5)   a.   Are there clouds in the sky?
>   b.   Does Sita know that it is raining?
> (6)   a.   Who came yesterday?
>   b.   What do you slice onions with?

We know that these are questions in English, not only because each of them ends with a question mark, but also because of the function they serve (they demand answers), and also because of the rather different kind of structure that they have from the sentences we have seen before. In particular, notice that, in (5a) and (5b), it is the finite verb (main verb or auxiliary) that occurs first in the sentence, instead of

the subject; and in (6a) and (6b), a question word (*who ... ? what ... ?*) occurs first, followed by the finite (main or auxiliary), and then comes the subject if this is distinct from the question word (as in (6b) but not in (6a) -- notice that in (6a) the question word *who* is itself the subject). This order of words is different from the order of words seen in the sentences in, e.g., (1), in which the subject occurs first (*the sky* in (1a)), followed by the verb (*is* in (1a)), which is then followed by the rest of the predicate (the adjective complement *blue* in (1a)).

The difference in word order found in questions in English has to be captured by a very different kind of rule from a phrase structure rule. This new kind of rule is called a **transformational rule**, or simply a **transformation**. In the case of a question like (6b), a transformational rule called **Question Word Movement** or **Wh-Movement** (i.e., movement of a question word, or a *wh*-word, so called because most question words begin with *wh* in English -- *who, what, where, when, why*) operates on a "hidden" or "deeper" representation such as (7), to move the question word *what* to the front of the sentence:

(7) ↑   you Present+slice onions with **what**
                                              |
     ——

The tense carried by the verb *slice*, viz., the Present tense, is separated from the actual verb in this representation (we shall see below why this has to be done). This yields the following kind of representation:

(8)   what   you Present+slice onions with *t*

The element *t* is a **wh-trace**, a sort of invisible mark left by the question word *what* when it has moved to the front of the sentence. The wh-trace is the first kind of empty category that we have seen: an "empty category" is a syntactically significant (and sometimes meaning-bearing) element that is not pronounced, and is therefore understood but not heard. (There is independent evidence that empty categories such as wh-traces do have a certain psychological reality for native speakers of English, since certain kinds of contraction or merger of words with one another are found to be blocked if there is a wh-trace between the words.)

In the next step, there is another movement, the movement of the Present tense to the left of the subject. This movement is also a transformation, and is known as **Subject-Aux Inversion** ("Aux" is originally from "Auxiliary", but also includes things like Present, Past or Future tense, agreement marking with the subject, and modals such as *can, must,* and *should*). We thus get the following representation:

(9)   what   Present you slice onions with *t*

But the Present tense cannot just be pronounced by itself: it needs the right kind of word to dock on to, since it does not have the status of a fully pronounced word all by itself. As it happens, in English the verb *do* is brought in to support the Present tense. We therefore get closer to the representation in which we normally utter (or write) the question, along with the wh-trace *t*:

(10)   what do+Present you slice onions with *t*

Since this is still not quite the form in which we normally speak (or write) the question, the representation (10) is called an **S-structure** representation. By contrast, the representation (7), without the prolonged arrow, is the **D-structure** representation (earlier it would be called the **deep structure** representation).

2.2.1   The feature of finiteness in clauses

We now discuss an important feature, or parameter, that a clause might be characterized by. Consider the sentences (1a-d) that we have seen above, repeated here as (11a-d):

(11)   a.   <u>The sky is blue</u>.
         b.   Sita knows [<u>that the sky is blue</u>].
         c.   Sita wants [<u>her sister to be intelligent</u>].
         d.   I saw Hari [<u>teaching the seventh-grade students</u>].

The clauses underlined are of two different kinds, depending on the nature of the verb. In (11a) and (11b), the verb of the underlined clause, viz., *is*, is a finite verb--note that it agrees with the subject noun phrase, *the sky*, in number (singular number) and person (third person), and is a present-tense form. The verb *is* is thus a **finite** verb. In both (11a) and (11b), therefore, the underlined clauses are **finite clauses**. In (11c), on the other hand, the verb of the underlined clause is the infinitival verb *to be*, which remains invariant regardless of the number and person features of the subject (thus one could say *Sita wants me/you/us/them to be intelligent*, without any change in the verb *to be*)--note also that it is not a present-tense form, nor a past nor a future form of the verb *be*. The verb *to be* in (11c) is therefore a **non-finite** (more specifically, **infinitival**) verb-form, and thus the underlined clause in (11c) is a **non-finite clause**. For similar reasons, the progressive participle *teaching*, which is the central verb-form in the underlined clause in (11d), is a non-finite verb, and the underlined clause in (11d) is a non-finite (specifically, participial) clause.

2.2.2   Finite clauses

As we have seen, a finite clause is a clause whose verb is a finite verb i.e. is marked for tense. The most readily available example of a finite clause is a simple sentence like (1a): the sentence consists of a single finite clause.

There are other kinds of finite clauses, however, which occur as subordinate clauses in complex sentences. The three salient kinds of subordinate finite clauses in English are:
         (i)   finite complement clauses,
         (ii)   relative clauses,
         (iii)   finite adverbial clauses.

The embedded clause in the sentence (11b) above is an example of a finite complement clause -- a finite clause that serves the function of a direct object complement to the verb. A complement clause can also occupy the position of a subject, as in the following sentence:

(12)   [<u>That Sita is intelligent</u>] hardly surprises me.

Here the clause *that Sita is intelligent* enclosed in square brackets is in turn the subject of the main (finite) predicate phrase *hardly surprises me*. It is also possible for a finite complement clause to occur as a complement to the noun *fact*, as in the following sentences:

(13)   a.   [The fact [<u>that Sita is intelligent</u>]] hardly surprises me.
         b.   I am hardly surprised at [<u>the fact [that Sita is intelligent</u>]].

Finite complement clauses can also occur as prepositional object complements, but then they usually have the status of adverbial clauses, as we shall shortly see.

Another finite clause type is the **relative clause**. A relative clause is so called because it "relates" to a noun in a noun phrase: it modifies, or adds some qualification to, the noun inside the noun phrase. Examples are the following:

(14)   a.   [The man [who came yesterday]] is a friend of Ram's.
        b.   This is [the house [that Jack built]].

Relative clauses can also be of two kinds: **restrictive** and **non-restrictive relative clauses**. Unlike a restrictive relative clause, of which the two sentences that we have just seen are examples, a non-restrictive relative clause is separated from the main sentence by commas before and after it, as in:

(15)   a.   Ali, who is a friend of Ram's, is coming here tomorrow.
        b.   Jack's house, which was built within a short time, is prettily decorated.

A restrictive relative clause cannot be dropped as easily as a non-restrictive relative clause precisely because a non-restrictive relative clause is much less tightly constrained within the noun phrase than a restrictive relative clause.

The third finite complement clause type is the **adverbial clause**. Examples can be seen in the following sentences:

(16)   a.   I left the party after [the solar eclipse ended].
        b.   Since [Sara studies hard], she never fails any examinations.

In the sentence (16a), the finite clause *the solar eclipse ended* occurs as the prepositional complement object of the preposition *after*. Since it (along with the preposition *after*) says something about the time at which I left the party, it serves the function of an adverb of time (such as *soon* or *later*); it is therefore an adverbial clause. In the sentence (16b), the finite clause *Sara studies hard* is the complement of the subordinating conjunction *since*; here, too, the two together say something about the reason for Sara's never failing any examinations; hence *since Sara studies hard* has the status of an adverbial clause. Another common kind of adverbial clause is the *if*-clause in a conditional sentence, as in:

(17)   a.   If [Ram studies hard] he will clear the examinations.
        b.   If [I had wings] I would fly off to far corners of the world.
        c.   If [Mark had listened to his friends] he wouldn't have lost much money.

In each case the *if*-clause specifies a condition that has to be true for the main clause (often called the *then*-clause) to hold good; we therefore count it as a special kind of adverbial clause.

2.2.3 Non-finite clauses: participial

Not all subordinate clauses are finite, however, as we have seen earlier. Consider the following sentences:

(18)   a.   I saw Hari teaching the seventh-standard students.
        b.   Hearing a sudden noise, Ram woke up in the middle of the night.
        c.   The children, having finished their homework, ran off to play outside.

In (18a), a sentence seen earlier, the direct object complement of the verb *saw* in the main clause is *Hari teaching the seventh-standard students*, which has a progressive participle, *teaching*, instead of a finite verb (such as *teaches, was teaching*, or *taught*). In (18b), *hearing a sudden noise* looks like a phrase containing a progressive participle *hearing*, rather than a full clause, since it does not have an expressed subject. However, if you think about it for a moment, you realize that the subject of *hearing* is understood to be *Ram*, the person who woke up in the middle of the noise, and not anyone else. Similarly, in (c), the sequence of words *having finished their homework* looks like a phrase containing the progressive auxiliary participle *having* + past participle *finished* rather than a full clause, but its understood subject is *the children* and not any other people. In generative syntax, the understood subject of the participle in (b) and (c) is said to be an unpronounced element which is labelled "PRO" (after "pronoun") and whose meaning is controlled -- i.e., determined -- by the subject of the matrix clause. These two properties are captured by the representations (19a) and (19b), below, for the sentences (18b) and (18c):

(19)   a.   [PRO_x Hearing a sudden noise], Ram_x woke up in the middle of the night.

         b   .The $children_y$, [PRO_y having finished their homework], ran off to play outside.

The common subscripts *x* for *PRO* and for *Ram* in the sentence (19a) indicate that the understood subject of *hearing a sudden noise*, i.e., *PRO*, has the same reference as *Ram*: this kind of indication of identity of reference is termed **coindexing** in syntax. The same is true for the common subscripts *y* for *the children* and for *PRO* in the sentence (19b): the two expressions are coindexed, since they bear the same reference (i.e., refer to the same entity or set of entities). We thus see that these participial phrases are secretly non-finite clauses, with an understood subject whose meaning is controlled by the main-clause subject. However, there can also be a participial clause with an unpronounced but understood subject whose meaning is indefinite, as in (20a) and (20b):

(20)   a.   <u>Seeing</u> is believing.

        b.   <u>Telling lies</u> is not a smart thing to do.

A participial form such as *seeing* requires an understood subject (since there have to be *some* animate beings to be able to see), as does a participial form like *believing*. The same would hold of the participial phrase *telling lies*. These sentences are therefore rewritten in generative syntax as follows:

(21)   a.   [PRO Seeing] is [PRO believing].

        b.   [PRO Telling lies] is not a smart thing to do.

The element PRO is an example of an **empty category,** a meaningful but unpronounced element. (We shall see further empty categories in the following units: they form an important set of elements in generative syntax.) This element enables us to see, again, that *seeing, believing*, and *telling lies* are actually parts of hidden participial clauses. The element PRO is said to have **arbitrary reference** in these sentences, since its meaning is not determined by any other noun phrase in the sentences but is understood to be something like 'everyone' or 'someone', i.e., no specific individual(s). The element PRO is also found to be useful in understanding the nature of another class of non-finite clauses, as we see below.

2.2.4   Non-finite clauses: infinitival

Consider the following sentences:

(22)   a.   I want <u>to go home</u>.

        b.   Sara expects <u>Ali to come back soon</u>.

        c.   <u>To err</u> is human.

In these sentences, the underlined expressions each have a special kind of non-finite verb, the **infinitive**: *to go, to come,* and *to err,* respectively. Notice, moreover, that the subject of *to come back soon* in (22b) is *Ali,* not Sara or anyone else; hence we include *Ali* as being the subject of the infinitival clause *Ali to come back soon.* In (22a), however, the understood subject of *to go home* is *I,* which is already the subject of *want.* We have learned about "PRO", an empty category whose meaning can be controlled by the main-clause subject, earlier. We can therefore rewrite (22a) and (22c) as follows, as (23a) and (23b), respectively:

(23)   a. I_a want [PRO_a to go home].

        b.   [PRO To err] is human.

Note the coindexing of *I* and *PRO* in the sentence (23a): both bear the subscript index *a.* In (23b), on the other hand, *PRO* has arbitrary reference: it is not coindexed with any other noun phrase present in the sentence. Thus, we see that the bracketed expressions in these two sentences are actually infinitival complement clauses: in (23a), the infinitival clause is the direct object complement of the main-clause verb *want (what* is it that I want?), and in (23b), the infinitival clause is the subject of the main-clause verb *is (what* is human?).

We shall have occasion to look at the syntax of non-finite complement clauses again, especially in Units 3 and 5; they show certain interesting effects that result precisely from their being non-finite complement clauses.

2.3   SENTENCE TYPES

2.3.1   Simple indicative sentences

The "simplest" kind of simple sentence is the simple indicative sentence -- a single-clause sentence that is a statement of a fact. (Whether the sentence is a true or a false statement would be another matter -- let us simply note that it makes sense to ask whether a statement is true or false, whereas it does not make sense to ask, e.g., whether a question is true or false.) The sentence (1a) seen above is an example of a simple indicative sentence. In English, an indicative sentence is so called because it is in the **indicative mood**. This can be understood if we compare the indicative sentence type with a sentence that is an order, request, or directive. We see this in th next subsection.

2.3.2   Simple imperative sentences

Consider the following example sentences:

(24)   a.   Get out!

        b.   Close the door, please.

        c.   Do not tell lies.

The sentence (24a) is an order -- a command to the addressee to leave the premises. Note that it is not a statement of a fact: it does not make sense to ask, for instance, whether it is true or false. (It makes sense to ask whether the order is obeyed or not, but then we are talking about the effectiveness of the order, not its truth or falsity.) The sentence (24b) is a request made to the addressee to close the door. (The word "please" added at the end gives it the character of a request rather than a direct order.) The sentence (24c) is an injunction, or a moral directive: it asks the addressee not to tell lies, as a matter of moral principle. These three sentences are therefore simple imperative sentences: they are said to be in the **imperative mood**.

Note that these sentences are exceptions to the requirement in English that a sentence must have an overtly expressed subject. The subject pronoun *you* is, as a general rule, not expressed in such sentences, unless some special emphasis is intended (as in "*You* get out!").

2.3.3 Complex sentences: embedding of clauses

We now come to complex sentences. A complex sentence is a sentence consisting of a main clause -- also called the **matrix clause** -- and one or more embedded (or subordinate) clauses. The sentence (1b) that we have seen above is an example of a complex sentence, since it consists of the main or matrix clause *Sita knows (X)* and the embedded finite complement clause *that the sky is blue*, fulfilling the role of the main-clause direct object *X*. A sentence consisting of a main clause and a non-finite (participial or infinitival) subordinate clause is also a complex sentence: thus, the sentences that we have seen in Subsections 2.2.3 and 2.2.4, earlier, are complex sentences. A complex sentence can have repeatedly embedded subordinate clauses as well, as in the following sentences:

(25)   a.   This is the dog [that chased the cat [that killed the rat [that ate the malt [that lay in the house [that Jack built]]]]].

        b.   I wonder [whether Hari believes [that Sita knows [that the sky is blue]]].

In these two sentences, alternate subordinate clauses are underlined to highlight the "nesting" of subordinate clauses. In the sentence (a), the subordinate clauses are all relative clauses: the most deeply embedded relative clause *that Jack built* is embedded inside the relative clause *that lay in the house _* , which is in turn embedded in the relative clause *that ate the malt _* , which is again embedded in the relative clause *that chased the cat _* , which is, finally, embedded inside the main or matrix clause *This is the dog _* . Likewise, in the sentence (b), the finite complement clause *that the sky is blue* is embedded inside the finite complement clause *that Sita knows _* , which is in turn embedded inside the complement clause *whether Hari believes _* , which is, finally, embedded in the matrix clause *I wonder _* . The degree of "nesting", or embedding, of subordinate clauses inside a complex sentence is, in principle, infinite: we have to draw the line in accordance with how much our short-term memory can handle, since if the sentence becomes too long we may forget what we had begun saying in the first place!

A complex sentence may also have **coordinate clauses** embedded within it, as in the following sentence (26):

(26)   Sita knows [that [the sky is blue] and [the moon is not made of cheese]].

Here, the embedded finite complement clause actually consists of two clauses joined together by the conjunction *and*: the clause *the sky is blue* and the clause *the moon is not made of cheese*. These two clauses are thus coordinate clauses that (along with the complementizer *that*) make up the conjoined complement clause *that the sky is blue and the moon is made of green cheese*, which is the direct object complement of the matrix verb *knows*. In principle, there can again be multiple embedding of coordinate clauses within other subordinate clauses, and of subordinate clauses within other coordinate clauses. (If the resulting sentence becomes too clumsy, involved, and complicated, however, we will have trouble keeping track of what it is trying to say in all. Therefore, in producing and understanding actual sentences, we draw the line in accordance with how much our intelligence and short-term memory can handle.) In the next subsection, we look at another sentence type, whose defining feature is in fact the occurrence of coordinate clauses.

2.3.4 Compound sentences: conjoining of clauses

Now let us consider sentences like the following:

(27) a. [Ram turned off the lights] and [Ali closed the windows].
      b. [Eat], [drink], and [be merry].
      c. [Sita wrote a short story] and [Sara a poem].
      d. [You may be tired], but [you must work for another hour].

Each of these sentences consists of clauses that are not in the relationship of main clause to subordinate clause(s), but are "joined", or **conjoined**, with one another by means of conjunctions such as *and* and *but*. We can also say that such conjoined clauses are **conjunct** clauses, or **coordinate** clauses (a term we have seen earlier). Sentences that are made up of conjoined (or coordinate) clauses are said to be **compound sentences**. In some cases, the conjunction may consist of two words such as *either ... or* and *neither ... nor*:

(28) a. Either [you withdraw this proposal] or [I resign from your committee].
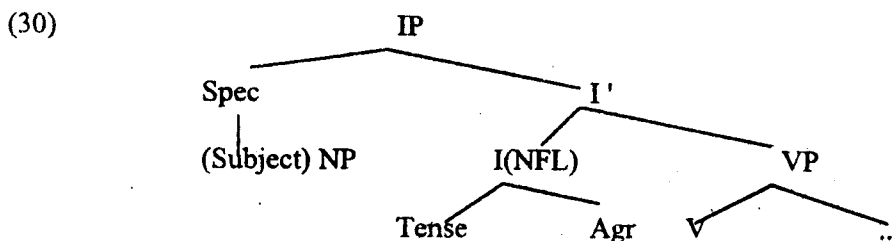   b. Neither [has Ram written to me about this] nor [has Sita spoken to me about it].

(Note the inversion of the subject and the auxiliary verb in the sentence (28b) -- this kind of inversion is often found when the clause has negation, i.e., a negative word such as *neither* or *nor*.) In principle, it is possible to conjoin more than just two or three clauses to form a compound sentence; however, if the sentence becomes too long it can become too much for us to process mentally. Thus, a compound sentence typically contains two or at most three conjunct clauses. However, it is also possible to have subordinate clauses embedded inside one or more of these conjunct clauses, as in the following sentence (29):

(29) [Ali turned off the lights [before he walked out]] and [Ram locked the door [after he had closed the windows]].

Again, the degree of embedding of subordinate clauses inside a compound sentence cannot be too high for our intelligence and short-term memory to handle, but in principle there is no limit to it. Such a principled lack of limits is actually a property arising out of the rule-governed creativity of any language, including English.
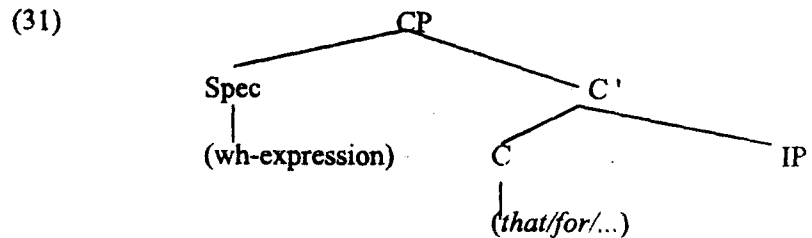
2.4   CONCLUSION

We have seen that the clause is an important kind of syntactic constituent which plays a vital role in the make-up of sentences of different kinds. Therefore, the clause is assigned its own syntactic constituent types, depending on whether a complementizer or relative pronoun is included or not. A clause, excluding any complementizer or relative pronoun that might (or might not) occur with it, is assigned the following kind of phrase structure tree, with the symbol **IP** (for **INFL-P** or "Inflection Phrase", where "Inflection" refers to "Verbal Inflection", the tense and agreement features on the verb -- to be discussed in more detail in Unit 4):

(30)

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                        IP
                   ____/  \____
                 /             \
              Spec              I'
               |             __/  \__
               |           /         \
          (Subject) NP   I(NFL)       VP
                         _/  \_      _/  \_
                        /      \    /      \
                     Tense    Agr  V       ...
```

In accordance with X-bar theory (which we have already seen in Unit 1), the head of the clause, IP, is the element I (i.e., INFL), even though (unlike the syntactic head types we have seen so far) most often it is not a full word in itself but only a suffix or even a feature, such as the feature of Past Tense on a verb-form such as *hit* or *cut* which does not change in shape in the past tense. This is allowed in syntax: to count as a syntactically significant constituent, an element need not be a full morphological word. (Sometimes it may not even be pronounced: the empty category PRO is a syntactic constituent of this kind.)

When a complementizer or wh-expression (i.e., question word or phrase, or relative pronoun or pronominal phrase such as *with which*) is included, the constituent IP is further embedded inside another kind of syntactic constituent, called **CP** (for "Complementizer Phrase"). The head of a CP is the complementizer C, whether it is overtly present or not. The phrase structure of a CP is as follows:

(31)

```
                        CP
              /                  \
          Spec                   C'
           |                   /     \
   (wh-expression)           C        IP
                             |
                        (that/for/...)
```

Note that, in English, a simple indicative sentence is an IP, not a CP, since it does not include a complementizer or wh-expression; while a question or an embedded relative clause must necessarily be syntactically represented as a CP, not as an IP.

2.5   LET US SUM UP

1.   The clause as a syntactic constituent is not always identical with a sentence: a sentence may consist of one or more clauses.
2.   A clause may be defined as a syntactic constituent whose immediate constituents are a subject and a predicate, and which may or may not contain a finite verb.
3.   A clause that has its own finite verb is a finite clause; a clause that has a non-finite verb is a non-finite clause.
4.   A sentence that consists of a single clause is a simple sentence.
5.   A sentence that consists of a main (or principal or matrix) clause and one or more subordinate clauses is a complex sentence.
6.   In principle, the degree of embedding of subordinate clauses in a complex sentence is infinite; the limits are imposed by how much our short-term memory and intelligence can handle.
7.   A sentence that consists of one or more conjoined (or conjunct or coordinate) clauses is a compound sentence. A compound sentence may have one or more subordinate clauses embedded within any or all of the conjunct clauses.
8.   Conversely, a complex sentence may contain conjoined subordinate clauses.
9.   A finite subordinate clause within a complex sentence may be a relative clause, a complement clause, or an adverbial clause.
10.   A complement clause is often preceded by a complementizer such as *that*.
11.   A clause by itself is a syntactic constituent of the type IP, whose head is the (finite or non-finite) INFL element of the clause.
12.   A clause along with a complementizer or *wh*-expression is a syntactic constituent of the type CP, whose head is a complementizer C, whether this is overt or null.

Adverbial clause:	A subordinate clause type, usually finite, that says something more about the time, place, manner, cause, or condition of occurrence of the event expressed by the main clause, just as an adverb would do.
Clause:	A syntactic constituent type that is one of the largest building-blocks of the sentence; a clause has subject-predicate (deep) structure and may be finite or non-finite, depending on whether its verb is a finite verb or not.
Complement clause:	An embedded clause that occurs as the subject or direct object complement to the verb of the matrix clause. A complement clause is often introduced by a COMPLEMENTIZER (q.v.).
C(omp) or Complementizer:	A syntactic element that typically occurs with a complement clause, e.g., the complementizer *that* with a finite complement clause, or the complementizer *for(...to)* with an infinitival complement clause. A complementizer is also the head (Comp or C) of the syntactic constituent of phrasal category CP.
Complex sentence:	A sentence that consists of a main clause and one or more subordinate clauses, with or without repeated embedding of the subordinate clauses.
Compound sentence:	A sentence that consists of two or more conjunct (or coordinate: see Key Words, Unit 1) clauses, with or without one or more subordinate clauses embedded in any or all of the conjunct clauses.
Finite verb:	In English, a verb-form that displays all the tense and agreement features that it is capable of displaying, with or without auxiliaries (including modals). Correspondingly, the clause to which the verb belongs is a finite clause. See NON-FINITE VERB for contrast.
I or INFL:	The head of a clause (which is a phrasal category of the type IP), consisting of verbal inflection and/or any auxiliaries (including modals such as *can* and *would*).
Non-finite verb:	In English, a verb-form that does not display all the possible tense and agreement features that it is capable of displaying, although it most often displays aspect (with or without the help of auxiliaries). For example, a participial verb complex such as *having seen* or an infinitive verb-form such as *to have left* would be considered non-finite. Correspondingly, the clause of which a non-finite verb is the principal verb is a non-finite clause.

Relative clause: An embedded clause that occurs as part of a noun phrase and modifies its head noun. An example is the CP modifying the underlined noun *man* in: [NP *The* <u>*man*</u> [CP *who is sitting over there*]] *is from Mumbai.*.

Simple sentence: A sentence consisting of a single clause, e.g., *The sky is blue* or *Sita was reading*.

2.7   BIBLIOGRAPHY

On the embedding of clauses: McCawley (1988), vol. 1, pp. 109-151 (on complement clauses); vol. 2, pp. 417-463 (on relative clauses); Radford (1988), pp. 287-317 (on clauses); Verma & Krishnaswamy 1989, pp. 209-230 (on Wh-Movement in clauses).

McCawley, James D. (1988) **The Syntactic Phenomena of English**, vols. 1 & 2. Chicago: University of Chicago Press.

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2.8   QUESTIONS & EXERCISES

1. For each of the sentences given below, indicate whether the sentence is simple, complex, or compound, pointing out the different clauses (main, subordinate, and/or co-ordinate):

   (a) Tell me what you think of it.
   (b) I am leaving right now.
   (c) Fair is foul and foul is fair.
   (d) I expect Ram to help me.
   (e) Neither did Sita come here nor did Sara leave.
   (f) May you be happy throughout your life!

2. For each of the italicized clauses in the following sentences, indicate whether it is a finite or a non-finite clause, the particular sub-type of finite or non-finite clause to which it belongs, and (if you can, and to the extent possible) its internal structure:

   (a) I wonder *whether she can speak Sanskrit.*
   (b) They are anxious *for you to help them.*
   (c) I am almost sure *that no one will do the assignment.*
   (d) Please bring me the book *from which you copied these paragraphs.*
   (e) I shall only come home *when my father is in a better mood.*
   (f) I don't like *your jumping to conclusions.*

NOTES ON "QUESTIONS & EXERCISES"

1. (a)   Complex (embedded question complement: *what you think of it*).
   (b)   Simple (single clause: *I am leaving right now*).

(c)   Compound (conjunct clauses: *Fair is foul, foul is fair* -- Note: from
       Shakespeare, *Macbeth*).
(d)   Complex (embedded infinitival clause: *Ram to help me*).
(e)   Compound (conjunct clauses: (*Neither*) *did Sita come here*, (*nor*) *did
       Sara leave*).
(f)   Simple (single clause: *May you be happy throughout your life*).

2.   (a)   Finite, complement (embedded yes-no question); (b) non-finite,
             infinitival; (c) finite, complement (embedded statement); (d) finite,
             relative (modifying the head noun *book*); (e) finite, adverbial
             (introduced by the relative pronoun *when*); (f) non-finite, participial
             (direct object complement to the main-clause verb *like*).