14. The Syntax of Sentence Discourse

Summary

The previous chapter analyses sentences by their relation with previous and successive sentences within a discourse or narrative, as occurs in actual speech. Discourse structure classifies sentences into seven discourse sentence types: existential sentence, statement, definite negative statement, indefinite negative statement, definite question, indefinite question, and hypothesis. This chapter describes in greater detail how discourse structure is expressed.

The seven discourse sentence types are realised by grammar, in the form of conventions of word order, grammatical words, and inflexions of each language. These rules distinguish a topic from a comment, enquiry, or hypothesis, and identify a word as definite, indefinite, or indefinable. A word can be identified by connecting it with another identified word, in a structure called a restrictive qualifier. Such a connection is made for that sentence only.

It is also a purpose of discourse to mark a verb as dynamic or stative, and to relate its occurrence to the occurrences of other sentences in the discourse. Dynamic verbs can be imperfective, perfective, prospective, or of independent occurrence (aorist). Verbs can also be marked as occurring earlier or later than expected. These features of a verb are its aspect.

It is also a purpose of discourse to mark a word as specific or general, a feature which is independent of aspect. The {circumstance} of a nonspecific comment can be qualified in a way that the {circumstance} of a specific indefinite comment cannot.

A further purpose of discourse is to indicate that a statement or question is or is not a consequence of another statement or question, and the extent to which the consequent statement or question is probable. This feature of a sentence is called its inference. Inference can be applied to a definite or indefinite comment, but not one which is indefinable. A question or negative statement can be inferred, but not the element which is questioned or negated.

A sentence may be compounded from two or more sentences with the same topic or the same comment.
{definite$_1$ – and – definite$_2$ – select} {definite$_1$ – and – definite$_2$ – indefinite – circumstance}
{definite – select$_1$ – and – select$_2$} {definite – indefinite$_1$ – and – indefinite$_2$ – circumstance).

A sentence may be true for one, two or more topics or two or more comments.
{definite$_1$ – or – definite$_2$ – select} { definite$_1$ – or – definite$_2$ – indefinite – circumstance}
{definite – select$_1$ – or – select$_2$} {definite – indefinite$_1$ – or – indefinite$_2$ – circumstance).

The grammar for realising all these features of discourse structure are independent of those realising the function of a sentence.

Terms Defined or Introduced

Aspect, addition, alternative, clause, inference.

Introduction

Chapter 13. analyses sentences by their relation with previous and successive sentences within a meaningful discourse or narrative, as occurs in actual speech. Using the notation introduced in that chapter, a sentence contains information which is:

- known, so connecting with previous sentences {definite};
- new, but relating to entities which are known to exist {indefinite};
- new, and relating to entities whose existence is not established {indefinable}.

This discourse analysis classifies sentences into seven structures or discourse sentence types: existential sentence, statement, definite negative statement, indefinite negative statement, definite question, indefinite question, and hypothesis. For this purpose, the additional elements {select}, {circumstance}, {not}, {but}, and {query} are required.

To express this discourse structure in meaningful sentences, languages requires grammatical rules which identify the purpose of each word in discourse and relate the sentence to previous and successive sentences. These rules are realised through rules of word order and through grammatical words or equivalent inflexions, as presented in Chapter 4. and 5. *Concept words* express a concept in the world, and are different from *grammatical words* which express the relations between them. Rules of word order have the same effect as grammatical words, but are more limited in application. Grammatical words include *auxiliaries*, which fulfil the purpose of concept words but obtain their meaning by attachment to concept words with a different purpose.

In Chapter 15., sentences are analysed on a different basis, that of their functional structure. The purpose of this chapter is to show that this functional structure is independent of discourse structure and the grammar needed to realise it.

Topic, Comment, Enquiry, and Hypothesis

Chapter 13. (Statement) summarises the principle rules of word order which languages use to identify a topic and to distinguish it from an existential object and comment. Other languages use a topic particle or, for ergative languages, a case:

Japanese:
"Sumisu-san wa Amerika kara kita." "Mr Smith came from America."
[Smith-Mr America-from came.]
"Amerika kara wa Sumisu-san ga kita." "Mr Smith came from America."
[America-from $_{(topic)}$ Smith-Mr $_{(subject)}$ came.][1]

Hindi: "usne kitāb likhī" "He wrote the book." [He $_{(agent)}$ book written.]

Inuit: "Akkam-ma aataaq aallaavaa." "My uncle shot the harp-seal."
[Uncle-my $_{(agent)}$ harpseal shot-he-it.]

In most languages, the topic is in first or second position in the sentence, for example in comparing an active and passive:

"The student read the book"; "The book was read by the student".

As discussed in Chapters 1. and 13., the placing of an element in focus is an inversion of the usual topic-comment construction. In topic-comment, one word or phrase is the topic and the rest of the sentence is the comment. In topic-focus, one word or phrase is the comment and the rest of the sentence is the topic. Focussing is achieved in three principle ways. One is by clefting:

French: "C'est ton frère qui le dit." "It's your brother who says so."
[It's your brother who it says.][2]

Irish: "Is inné a tháinig sé." "It was yesterday that he came." [Is yesterday that came he.]
"Is sinn-ne a raghaidh isteach ar dtúis." "[It] is we who shall go in first."[3]

Turkish: "Iki senedir bu evde oturuyor." "It is two years that he has lived in this house."
[Two year-is this house-in he-lives.][4]

[1] Makino & Tsutsui, 22.
[2] Fraser & Squair, 281.
[3] Dillon & Ó Crónín, 59, 149
[4] Lewis, 109.

Inuit: “Aqaguuna Hansip pulaarniaraatigut.” “Is is tomorrow that Hansi will visit us?”
[Tomorrow-that Hansi $_{(agent)}$ visit-will-$_{participle}$-he-us?][5]

The second is by placing the focus element in an unusual position:

Inuit: “Piniartup puisi pisaraa.” “The hunter caught the seal.” (unstressed)
[Hunter $_{(agent)}$ seal catch-he-it.]
“Piniartup pisaraa puisi.” “It was a seal which the hunter caught.”
[Hunter $_{(agent)}$ catch-he-it seal.]
“Puisi pisaraa piniartup.” “It was the hunter who caught the seal.”
[Seal catch-he-it hunter $_{(agent)}$.][6]

The third is by a focus or topic particle:

Finnish: “Viime sunnuntainahan Kalle syntyi.” “It was last Sunday that Kalle was born.”
[Last Sunday-on $_{(focus)}$ Kalle was-born.][7]

Malay: “Dialah memberitahu saya.” “It was he who informed me.”
[He $_{(focus)}$ informed me.][8]

Chinese: “Shì wǒ dǎ pò zhèi gè bēizi de.” “I was the one who broke this cup.”
[$_{(focus)}$ I hit break this unit cup $_{(focus)}$.][9]

Tagalog: “Aalisin ng tindero ang bigas sa sako para sa babae.”
“The rice will be taken out of a sack for the woman by the storekeeper.”
[Will-be-taken a storekeeper the rice from sack for-to woman.] [10]

Japanese:
“Morita-san ga kita no wa Tōkyō kara da.”
“It was from Tokyo that Mr Morita came.”
[Morita-Mr $_{(subject)}$ coming $_{(topic)}$ Tokyo-from is.][11]

Negatives generally require a {not} word, as already noted. Questions can be marked through word order or through a {query} particle:

Russian: “Byl li on v teatre?” “Was he at the theatre?” [Was query he at theatre?]

Arabic: “hal tarā ʔanna ðālika ʔamrun jayyidun” “Do you think that is a good thing?”
[Query you-think that that matter good?][12]

Persian: “aya in ketab ast?” “Is it this book?” [Query this book is?][13]

An {indefinable}element can be marked with a discrete word or an inflexion:

Italian: “Glielo venderò purché mi paghi bene.”
“I’ll sell it to him so long as he pays me well.”
[To-him-it I’ll-sell provided-that me he-pays $_{(subjunctive)}$ well.][14]

Russian: “Esli by ya znala, ya by vam skazala.” “If I knew, I should tell you.”

---

[5] Fortescue, 192.
[6] Fortescue, 181.
[7] Karlsson, 229.
[8] Dodds, 130.
[9] Yip & Rimmington, 133.
[10] Schachter, 941.
[11] Makino & Tsutsui, 339.
[12] Badawi et al, 690.
[13] Lambton, 5.
[14] Speight, 157.

[If (conditional) I knew, I (conditional) to-you told.][15]

Identity

While the grammatical rules for marking topic, comment, enquiry, and hypothesis are sufficient for that purpose, they are not sufficient for identifying every word in a sentence. The topic of a sentence is definite by its nature, but the other sentence elements may comprise a mixture of definite, indefinite, and indefinable words:

(i) In "I have eaten an apple this morning" and "I have eaten the apple this morning", the topic is "I" and the comment, or new information, is "have eaten". In addition, the first sentence informs the hearer of the existence of an apple while the second sentence refers to an apple previously identified.

(ii) In "I have not eaten an apple this morning" and "I have not eaten the apple this morning", the topic is "I" and the comment, or new information, is that "have not eaten". In addition, the first sentence denies that an apple existed while the second sentence denies the eating of an apple previously identified.

(iii) In "Have you eaten an apple this morning?" and "Have you eaten the apple this morning?", the topic is "you" and the enquiry is "have eaten?". In addition, the first sentence questions whether an apple existed while the second sentence questions the eating of an apple previously identified.

Discourse structure therefore requires that each word in a comment, enquiry, or hypothesis is marked for identity. In some languages, this is done solely by inference. As shown in Chapter 2., it may also be done by a definite or indefinite article, as in the above examples, or by other grammatical means:

Hungarian:
"Hallgatta az operát." "She listened (definite) [to] the opera."

Serbian: "Ovo je mladi čovek o kojem sam ti pričala."
"This is the young man about whom I spoke to you."
[This is young (definite) man about whom I-am to-you spoken.][16]

Turkish: "Öküzü aldı." "He bought the ox." [Ox (accusative) he-bought.][17]

Chinese: "Tā bă shū fàng hăo le." "She placed the books in good order."
[She the book put good (aorist).][18]

Inuit: "Atuakkat atuarpai." "He read the books." [Books read-he-them.][19]

Alternatively, a word can be marked as definite by a restrictive qualifier, that is by attachment to another definite word:

"My friends sat down to table."
"The friends whom we saw that morning sat down to table."

In the first example, "friends" becomes definite through qualification by a definite pronoun, "me". In the second example, "friends" becomes definite through qualification by a sentence "we had seen (them) that morning", structured as a relative clause. The relative clause does not supply new information, but contains known information which serves to identify "friends".

[15] Folomkina & Weiser, 230.
[16] Hammond, 204.
[17] Lewis, 36.
[18] Yip & Rimmington, 120.
[19] Fortescue, 249.

Notice that the relative clause "we saw (them) that morning" identifies its unstated object "them" with the agent "friends" of the principal clause, an identification which is set up solely for the individual sentence. Neither the principal nor the relative clause has any effect on the functional structure of the other.

Relative clauses are facilitated by relative pronouns:

Italian: "la ragazza a cui scrivo" "the girl to whom I am writing"
"il pittore, i cui quadri sono famosi" "the painter whose pictures are famous"

Arabic: "jalasa l-rajulu llāðī yataḥaddaθu" "The man who is talking sat."
[Sat the-man the-one he-is-talking.][20]

Persian: "mardhai ke ketabhara be anha dade budid raftand"
"The men to whom you gave the books went."
[Men-the who books $_{(object)}$ to them given you-were went.][21]

Indonesian:
"Beberapa orang yang dikirimi surat belum menjawab."
"Several of the people who were sent letters have not yet replied."
[Several people who were-sent letter not-yet reply.][22]

Swahili: "Nimeijibu barua iliyokuja jana."
"I have answered the letter which came yesterday."
[I-have-it-answered letter it-did-which-come yesterday.][23]

Individual nouns ("John", "London") possess an inherent identity. A pronoun may stand for a definite or indefinite word (Chapter 2., Pronoun):

Italian: "Ce li trovarai." "You'll find them there." [There them find-will-you.]

Hungarian:
"előttem" "in front of me" [in-front-of-me][24]
"a füzetemből" "out of my notebook" [the notebook-my-from][25]

Russian: "v sadu ya uvidela chto-to tëmnoe." "I saw something dark in the garden."
[In garden I saw something dark.][26]

Malay: "Yang sudah dipakai tidak bisa dikembalikan." "The used ones can't be returned."
[Which have been-used not can be-returned.][27]

Japanese:
"Watashi wa kuroi no ga hoshii." "I want a black one."
[I $_{(topic)}$ black one $_{(subject)}$ is-wanted.][28]

Swahili: "Umekileta kitabu?" "Have you brought the book?" [You-have-it-bring book?][29]

Addition

[20] Badawi et al, 489.
[21] Lambton, 76.
[22] Sneddon, 287.
[23] Perrott, 59.
[24] Törkenczy, 79.
[25] Rounds, 101.
[26] Folomkina & Weiser, 475.
[27] Sneddon, 301.
[28] Makino & Tsutsui, 317.
[29] Perrott, 38.

Many sentences connect a single topic to more than one comment, or more than one topic to a single comment:

"Paul ate an apple and a pear from the basket." "Paul and Philip saw the rainbow."

Since these sentences describe more than one action or state, they are in reality two sentences, linked by the discourse element {and}, meaning "and in addition":

"Paul ate an apple {and} Paul ate a pear."
"Paul saw the rainbow {and} Philip saw the rainbow."

In reality, it is not necessary to restate the common elements, and the sentences are usually expressed:

"Paul ate an apple {and} a pear. Paul {and} Philip saw the rainbow."

Such a sentence is a *compound sentence*. In terms of discourse structure they can be summarised:

{definite – indefinite$_1$ – and – indefinite$_2$ – circumstance}
{definite$_1$ – and – definite$_2$ – select}.

Similarly, if we choose slightly different topics or comments, for example:

"Paul ate the apple and the pear. Paul and Philip saw a rainbow in the sky"

we have the parallel structures:

{definite – select$_1$ – and – select$_2$} {definite$_1$ – and – definite$_2$ – indefinite – circumstance}.

If both a topic and a comment contain {and}, ambiguity arises because it is not clear which topic applies to which comment. In:

"Jane and Edna saw Paul eating an apple and a pear"

it is not clear whether one apple and pear were seen to be eaten, or two. Languages resolve this problem with the words "together" and "each" or their equivalents, which indicate how {and} is to be understood:

"Jane and Edna together saw Paul eating an apple and a pear" means:
"Jane {and} Edna saw Paul eating an apple and a pear"

{definite$_1$ – and – definite$_2$ – indefinite – circumstance}

"Jane and Edna each saw Paul eating an apple and a pear" means:
"Jane saw Paul eating an apple and a pear {and} Edna saw Paul eating an apple and a pear"

{definite$_1$ – and – definite$_2$ – indefinite$_1$ – and – indefinite$_2$ – circumstance}.

When applied to a negative, {and} means that neither event happened:

"Paul did not eat an apple or a pear" means "Paul {not} ate an apple {and} ate a pear."
{definite – not – indefinable$_1$ – and – not – indefinable$_2$}.

Similarly, when applied to a question, {and} means that both events are queried:

"Did Paul eat an apple and a pear?" means "Paul {query} ate an apple {and} ate a pear."
{definite – query – indefinable$_1$ – and – query – indefinable$_2$}.

Alternative

The discourse element {or} indicates that a statement is true for either one of two (or more) entities, which may be {definite} or {indefinite}. If the entities are {definite}, the alternative relates to the topic:

"John or Henry is in the pub"; "John or Henry is in a pub";

{definite$_1$ – or – definite$_2$ – select} {definite$_1$ – or – definite$_2$ – indefinite – circumstance}.

or to the comment, and hence to the element {select}:

"John is in the pub or the café";

{definite – select$_1$ – or – select$_2$}.

If the alternative entities are {indefinite}, the selection is according to the {circumstance}, which generally determines which alternative is adopted. There is therefore only one {circumstance}:

"John is in a pub or a café (according to the time of day)";
"John is English or Welsh (by nationality)".

The structure is:

{definite – indefinite$_1$ – or – indefinite$_2$ – circumstance).

The element {or} cannot meaningfully be applied to both the topic and the comment of the same sentence. *"John or Henry is in the pub or the café" conveys no information.

{or} can be applied to a definite negative or definite question:

"John is not in the pub or the café." "Neither John nor Henry is in the pub."
"Is John in the pub or the café?" "Is John or Henry in the pub?"

The element {or} cannot be applied meaningfully to an {indefinable}. "We have no apples or bananas" means "We have no apples and we have no bananas", and "or" has the same meaning as {and}. We have already observed this in the previous section:

"Paul did not eat an apple or a pear" means "Paul {not} ate an apple {and} ate a pear."

Conversely, "and" when applied to a negative implies an {or} construction:

"Paul did not eat (both) an apple and a pear" means
"Paul ate an apple {and} {not} a pear {or} ate a pear {and} {not} an apple."

"Paul did not eat (both) the apple and the pear" means
"Paul ate the apple {and} {not} the pear {or} ate the pear {and} {not} the apple."

Stative Relations

When a sentence expresses movement, or a state arising from movement, the movement generally constitutes new information and the word expressing movement can express the comment:

"We came to London"; "We were arrived in London".

For a sentence which expresses a state or condition without any reference to movement, the condition generally constitutes the new information and can express the comment, even if a stative auxiliary such as "be" is not used:

Russian: "Gorod krasiv." "The city is beautiful" [City beautiful.]

Hungarian:

"Ez a ház hatalmas." "This house is huge." [This the house huge.]

Arabic: "al-ḍawʔu nāṣiʕun" "The light [is] clear."

Turkish: "Vesika kasada." "The document is in the safe." [Document safe-in.]

Chinese: "Zhè ge fángjiān shí mǐ kuān." "This room is ten metres wide."
[This unit room ten metre wide.]

Japanese:
"Hon wa takai." "The book is expensive." [Book $_{(topic)}$ expensive.]

If the comment is a person or thing with which the sentence identifies the topic, and the auxiliary "be" is not available, the only way in which topic and comment can be distinguished is by word order:

Turkish: "Kızın adı Fatma." "The girl's name is Fatima." [Girl-of name-her Fatima.][30]

Arabic: "hāʔulāʔi hunna banātī" "These are my daughters." [These they daughters-my.][31]

Indonesian:
"Ini keputusan saya." "This is my decision." [This decision me.]
"Harimau itu binantang liar." "The tiger is a wild animal." [Tiger the animal wild.]

Alternatively, the comment can be marked with a case to show that it is indefinite:

Russian: "Moi brat byl uchitelem." "My brother was [a] teacher $_{(instrumental)}$."
"Odnoi iz nashikh glavnikh problem byl transport."
"One $_{(instrumental)}$ of our main problems was transport."[32]

If the comment is a person or thing, and the relationship with the topic is one of possession, then word order is generally not sufficient to indicate meaning, and an auxiliary "have" or its equivalent must be used:

French: "Il a beaucoup d'argent." "He has plenty of money."
"J'en ai peur." "I am afraid of him." [I of-him have fear.]

German: "Wir haben ein neues Auto." "We have a new car."
"Ich habe Hunger." "I'm hungry."

Greek: "Εχω μόνο τρεις λίρες." "I have only three pounds."

Persian: "do bab xane darad" "He has two houses." [Two unit houses he-has.][33]

For many languages, "have" is a locative function of the possessor:

Russian: "U menya novyi kostyum." "I have a new suit." [With me new suit.]

Hungarian:
"Jóska feleségének jó állása van." "Joska's wife has a good job."
[Joska wife-his-to good job-her is.][34]

Welsh: "Y mae'r fasged gan Mair." "Mary has the basket."
[There-is the basket with Mary.][35]

[30] Lewis, 97.
[31] Badawi et al, 312.
[32] Wade, 126.
[33] Lambton, 43.
[34] Pontifex, 257.
[35] Bowen & Rhys Jones, 38.

Irish: "Tá gúna nua ag Eibhlín." "Eileen has a new dress." [Is new dress at Eileen.][36]

Other languages repeat the topic:

Indonesian:
"Rumah besar itu rumah Tomo." "That big house is Tomo's."
[House big that house Tomo.]

The function of the possessive sentence is discussed further in Chapter 15. (The Possessive Sentence).

A state or condition is sometimes expressed by attaching an auxiliary (which we have called a converse link) to a noun expressing that state or condition. In English, these are generally adapted locatives:

"at risk"; "at rest"; "in flight"; "in haste"; "in awe"; "on schedule".

Dynamic Sentences

Every dynamic sentence implies a sentence which describes the state after the action is completed, and every stative sentence implies an action which caused the state to arise:

"They became hungry."	→	"They were hungry."
"They sat down to table."	→	"They were seated at table."
"They looked at the menu."	→	"They saw the menu."
"They ordered lunch."	→	"Their lunch was on order."
"The ate lunch."	→	"Their lunch was eaten."

In the case of physical occurrences, the action is physical, and the distinction between the dynamic and stative expressions is clear. For mental occurrences, this distinction is often less evident:

"He took pleasure in the conversation."	→	"He was pleased with the conversation."
"He was frightened by the dark."	→	"He was afraid of the dark."
"He obeyed the rules."	→	"He was obedient to the rules."

The manner in which an action is performed can sometimes be expressed by an attribute of the agent. The origin of such an attribute in a dynamic sentence may not be important:

"They were sincere in their expressions of regret."
"You were very kind to answer my letter so promptly."

In many languages a passive construction, in which an object rather than an agent is the topic, has the same form whether it is dynamic or stative:

"Lunch was ordered"; "Lunch was eaten".

Russian: "Pis'mo podpisano ministrom." "The letter has been/is signed by a minister."
[Letter signed by-minister.][37]

While the distinction between dynamic and stative sentences is often essential to meaning, its principal purpose is to relate the occurrence of the sentence to the previous and following sentences, as will be shown in the following section (Aspect). Movement is principally a feature of the discourse structure rather than the internal functional structure of the sentence.

Movement is often expressed by auxiliaries attached to an event noun or attribute:

English: "They fell in love." "We put them to flight." "She got very cold."

[36] Dillon & Ó Cróinín, 167.
[37] Wade, 378.

Irish: "Tá sé ag gearradh adhmaid." "He is cutting wood." [Is he at cutting of-wood.]
"Táid ina luí ar an urlár." "They are lying on the floor."
[They-are in-its lying on the floor.][38]

Turkish: "Bu iki eseri mukayese ediyor." "He is comparing these two works."
[These two works $_{(object)}$ comparison he-is-making.][39]
"Öksürük oldu." "He's caught a cough." [Cough he-became.]

Hindi: "maĩ nau baje darvāzā band kartā hū̃" "I close the door at nine o'clock."
[I nine o'clock door closed making am.]
"laṛke ne pūrā pannā paṛh diyā" "The boy read out the entire page."
[Boy-by entire page reading gave.][40]

Japanese:
"Watashi wa chūkoguko o benkyō shite iru." "I am studying Chinese."
[I $_{(topic)}$ Chinese $_{(object)}$ study doing there-is.]
"Yamada wa teigaku ni natta." "Yamada got suspended from school."
[Yamada $_{(topic)}$ suspension-in became.][41]

Similarly, an auxiliary is often attached to an action word to express a causer, initiator, or preventer of the action:

"The fire caused us to flee." "The noise made us jump."
"The printer started to print." "They went on walking." "We stopped talking."

Aspect

As already mentioned, a sentence expresses movement primarily in order to relate its occurrence to the occurrences of preceding and following sentences:

"They were hungry when they sat down to table."
"While seated at the table, they looked at the menu."
"Having seen the menu, they ordered lunch."
"Before eating lunch, they had a drink."
"When lunch arrived, they ate it."

The first two of these examples describe a state during which an action occurs. The third and fifth describe an action which follows the completion of another action. The fourth example describes an action in anticipation of another action. This ability to sequence states and actions is called *aspect*, and is described in Chapter 5. (Aspect). Because aspect connects the sequence of sentences, it is part of their discourse structure. It is as important to language comprehension as other features of discourse structure, and is built into the grammar of most or all languages.

Aspect is a property, not of one sentence but of its relation with other sentences. When two or more sentences are connected as a compound sentence, we use the term *clause* to designated each part. If the first clause of the above examples is expressed as a separate sentence, it possesses meaning but in discourse terms is incomplete:

"They sat down to table." "They were seated at the table." "They had seen the menu."
"The were about to eat lunch." "Lunch had arrived."

In each case, the hearer asks him/herself "so what". To place the sentences in a discourse, we need to add the sentences which follow (the main clause). The *occurrence* of a clause or sentence, that is the time over which it occurs, therefore relates its aspect to the aspect of other clauses or sentences. The

[38] Dillon & Ó Cróinín, 44, 59.
[39] Lewis, 155.
[40] McGregor, 56, 101.
[41] Makino & Tsutsui, 429, 433.

clause “They were hungry” describes a state which exists when the main clause takes place: “They sat down”. Its aspect is *stative*. “They were seated at the table” has an occurrence which is still proceeding when the main clause occurs: “They looked at the menu”. Its aspect is *imperfective*. The occurrences of the clauses “They had seen the menu” and “Lunch had arrived” are complete, but have an effect on the main clauses when those occur: “They ordered lunch”; “They ate lunch”. Their aspect is *perfective*. The clause “They were about to eat lunch” describes an event which has not yet occurred but is expected when the main clause occurs “They had a drink”. Its aspect is *prospective*. The main clauses themselves have an occurrence which is complete and is not related to any following sentence. Their aspect is *aorist*.

The clauses of the examples express different actions or states and are therefore separate sentences, which are connected aspectually through the use of conjunctions or participles. The functional structures of each clause are independent of each other. In “They were hungry when they sat down to table”, the “they” of the first clause is a recipient and the “they” of the second clause is an agent. Similarly, in “While seated at the table, they looked at the menu”, the “they” of the first clause is the object of a locative while the “they” of the second clause is again an agent. In both cases, the two “theys” are identified solely as a convenience in representing the discourse.

For the first four examples, the clauses are *gerunds* (Chapter 5., Gerund), in that they describe the state or condition of the subject of the following clause. For the last example, although the clause does not describe the state or condition of the subject of the following clause, it appears to describe the state or condition of its topic, and could as well be expressed: “When lunch arrived, it was eaten by them.” If we broaden the definition of gerund to mean a clause which describes the state or condition of the topic of a subsequent clause, then all these sentence have the structure “gerund – sentence”.

It can be seen that the aspectual function (other then aorist) is a property of the gerund, not of the main clause. The gerunds are stative, imperfective, perfective, or prospective, while the main clause is aorist. Since both the gerund and the main clause are separate sentences, they have the standard discourse structures {definite – select} or {definite – indefinite – circumstance}. In order to describe this aspectual relation in discourse, we may employ the following elements in the gerund:

{state}	a state not arising from a previous action;
{imperfect}	an action or state which is still proceeding;
{perfect}	a state arising from a previous action;
{prospect}	an action which is about to occur;
{aorist}	a completed action not resulting in a state.

Since aspect is a relation of a sentence with its successor, discourse requires that only the gerund has aspect in these examples. The main clause only needs aspect if it is connected to the occurrence of a subsequent sentence. Assuming that this is not so, the aspect of the main clause can be described with {aorist} or not at all. This notation results in the following pattern, the last sentence being understood as “When lunch arrived, it was eaten by them”:

“They were hungry when they sat down to table.”
{definite/circumstance$_1$ – indefinite – state} {definite$_1$ – select – aorist}.

“While seated at the table, they looked at the menu.”
{definite$_1$ – select – imperfect} {definite$_1$ – select – aorist}.

“Having seen the menu, they ordered lunch.”
{definite$_1$ – select – perfect} {definite$_1$ – select – aorist}.

“Before eating lunch, they had a drink.”
{definite$_1$ – select – prospect} {definite\circumstance$_1$ – indefinite – aorist}.

“When lunch arrived, they ate it.”
{definite$_1$ – select – perfect} {definite – select$_1$ – aorist}.

However, not all clauses which are linked aspectually are also connected as a gerund to a main clause:

"It was raining outside when they sat down to table."
"While they were seated, the waiter arrived."
"When the waiter had explained the menu, they ordered lunch."
"Before lunch, drinks arrived."
"When lunch arrived, they ate it."

These clause have the same discourse structure as those with a gerund, but without the "$_1$" subscript identifying the subjects or topics of the two clauses. The aspectual discourse structure can be summarised:

{definite – indefinite – circumstance – imperfect/perfect/prospect}/
{definite – select – imperfect/perfect/prospect}
{definite – select – aorist}.

Two additional features of aspect which we have not so far mentioned are "already" and "still". "Already" means refers to an occurrence which is taking place earlier than expected. "Still" refers to an occurrence which is taking place later than is expected. Because the expectations are set by other sentences, "already" and "still" are a feature of discourse structure. Both expressions can apply to positive and negative imperfective or stative sentences:

"It is already raining."	"It is still raining."
"It is already not raining."	"It is still not raining."

However, "already" only applies to a non-negative perfective sentence, and "still" only applies to a negative perfective one:

"He has arrived already."	*"He has still arrived."
*"He has already not arrived."	"He has still not arrived."

Only "already" applies to a prospective sentence:

"It is already about to rain."	*"It is still about to rain."
*"It is already not about to rain."	*"It is still not about to rain."

Elements {already} and {still} can be used in discourse structure to describe these concepts.

As Chapter 5. shows, gerunds occur widely and perhaps universally in languages. Other examples are:

Serbian: "Umoran, putnik se sinoć vratio kući."
"Tired, the traveller returned home last night."
[Tired $_{(indefinite)}$, traveller himself last-night returned home.][42]

Spanish: "Siendo estudiante, tendrás derecho a una beca."
"Since you're a student, you'll have the right to a grant."
[Being student, you will have right to a grant.][43]

Turkish: "Kapıyı açarak sokağa fırladı." "Opening the door, he rushed into the street."
[Door opening, street-to rushed-he.][44]

A gerund can be regarded as a non-restrictive relative clause, qualifying the subject of the sentence. The same aspectual relations can also occur between a restrictive relative clause and the main verb of the sentence:

"The house which you were looking at is sold."	{imperfect}
"The house which you have looked at is sold."	{perfect}
"The house which you are about to look at is sold."	{prospect}

[42] Hammond, 208.
[43] Butt & Benjamin, 263.
[44] Lewis, 177.

"The house which you have already looked at is sold." {already}
"The house which you have still not looked at is sold." {still}

However, in this case the aspect element is not part of the discourse structure, which is simply "The house is sold", that is {definite\circumstance – indefinite}, but of the relative clause which makes the topic "house" {definite}. It is therefore part of the functional structure to be described in the next chapter. For example, the second example is, in part:

{definite$_1$\circumstance – indefinite} {object$_1$ – perceive – agent\recipient – imperfect}.

In some languages, all verbs possess aspect, and in others it is only expressed when required by the discourse or functional structure. In many languages, aspect is expressed by auxiliaries:

French: "Les dames sont arrivées." "The ladies have arrived." [The ladies are arrived.]

Italian: "Stavano dormendo." "They were sleeping."

Spanish: "No he visto a tu madre esta semana." "I haven't seen your mother this week."
"Está haciendo sus cuentas." "He's doing his accounts."[45]

Irish: "Tá an leabhar caillte ag an ngarsún." "The boy has lost the book."
[Is the book lost at the boy.]
"Táim tar éis teacht isteach." "I have just come in." [I-am after coming in.][46]

Arabic: "fī l-ṣabāḥi kāna l-maṭaru qad sakana" "In the morning the rain had calmed down."
[In the-morning has-been the-rain calmed-down.]
"kāna l-ʔawlādu yatarākaḍūna" "The children were racing around."
[Have-been the-children are-racing-around.]
"maʕa ḥulūli l-ṣayfi sa-yakūnu yuʔaddī wājibahu bi-ntiẓam"
"By summer he will be performing his duties regularly."
[By summer he-will-be he-is-performing duties-his regularly.][47]

Hindi: "vah kitāb likh rahā thā" "He was writing the book."
[He book write remaining was.][48]

Indonesian:
"Ketika saya sampai di rumahnya Tom sedang makan."
"When I arrived at his house Tom was eating."
[When I arrive at house-his Tom was eat.]
"Ketika saya sampai di rumahnya Tom sudah bangun."
"When I arrived at his house Tom had already got up."
[When I arrive at house-his Tom already get-up.][49]

Chinese: "Wǒ zái yínháng kāi le yī gè zhànghù." "I have opened an account at the bank."
[I at bank open $_{(aorist)}$ one unit account.]
"Wǒ hēguo máotáijiǔ." "I have tried Maotai wine." [I drink $_{(perfective)}$ Maotai wine.]
"Jiāoxiǎng yuètuán zài yǎnzòu Bèiduōfēn de yuèqǔ."
"The symphony orchestra is playing Beethoven's music."
[Join-sound music-group $_{(imperfective)}$ play Beethoven-of music-song.]
"Mèimei chuānzhe yī tiáo bái qúnzi." "My younger sister is wearing white skirt."
[Younger-sister wear $_{(stative)}$ one unit white skirt.][50]

[45] Butt & Benjamin, 210, 216.
[46] Dillon & Ó Cróinín, 41, 151.
[47] Badawi et al, 368, 370.
[48] McGregor, 71.
[49] Sneddon, 200.
[50] Yip & Rimmington, 43, 45, 61.

A different discourse relationship is exhibited by a gerund of purpose:

"They entered the restaurant in order to have lunch."

Hungarian:
"Felhasználtam az alkalmat arra, hogy elszökjek."
"I used the opportunity to get away."
[I-used the opportunity onto-that, that I away-get $_{(subjunctive)}$.][51]

Persian: "inra panhan kard ta kasi peida nakonad" "He hid this so that no-one would find it."
[This $_{(object)}$ hiding he-made so-that anyone finding not-he-makes $_{(subjunctive)}$.][52]

The purpose in these examples, being a hypothesis, is {indefinable}, and lacks a relation in time with the main clause. Its discourse structure is therefore:

{definite$_1$ – indefinable} {definite$_1$ – select}/{definite$_1$ – indefinite – circumstance}.

Generality

Chapter 2. illustrates how a sentence referring to a specific entity can be constructed to refer to a class of such entities, whether a closed class (generic) or unbounded class (nonspecific):

"On Fridays, meetings take place."
"Meetings take place on Fridays."

In the first example, "Fridays" refers to all Fridays, a closed class, and "meetings" means those meetings which take place on Fridays, a class which was not closed until the sentence was uttered. In the second example, "meetings" refers to all meetings, a closed class, and "Fridays" means those Fridays on which meetings take place, a class which was not closed until the sentence was uttered.

A closed class refers to a known group of entities and can be treated as {definite}. In our terminology it is called *generic*. An unbounded class does not refer to a known group of entities and can be treated as {indefinite}. In our terminology it is called *nonspecific*. This correspondence between generic and definite and nonspecific and indefinite means that generality is independent of functional sentence structure in that same way as identity is.

"The friends used to sit down to table at 1.00;"
"Our customers sit down to table at 1.00;"

have the same functional sentence elements as the specific sentence "My friends sat down to table at 1.00".

Generality is also independent of aspect. The sample sentences quoted in the previous section can be expressed so that they relate, not to a series of specific incidents but to a set of settled habits:

"They were hungry when they used to sit down to table."
"While seated at the table, they used to look at the menu."
"Having seen the menu, they used to order lunch."
"Before eating lunch, they used to have a drink."
"When lunch arrived, they used to eat it."

These sentences relate to a specific set of individuals ("they"), but all the other entities are general: "sit", "table", "menu", "lunch", etc. Nevertheless, the aspectual relation between the gerunds and the main sentences remain the same as for the specific sentences. Certain sentence functions would appear to be more general in their nature than others:

"Grass is green"; "A cabbage is a vegetable".

[51] Rounds, 43.
[52] Lambton, 151.

However, this generality arises because "grass" and "a cabbage" are generic. For a specific topic, the same types of sentence can be specific:

"The Vicar of Bray was Protestant under King Edward VI and Catholic under Queen Mary I."
"Harold Wilson was Prime Minister in 1970 and Leader of the Opposition in 1971."

A sentence can have a specific topic and general comment or a general topic and general comment. It cannot have a general topic and specific comment:

"John eats lunch at 1.00." "Judges eat lunch at 1.00." *"Judges ate a lunch at 1.00."

Both the first and second sentence have the discourse structure {definite – indefinite – circumstance}. To distinguish between them, an element {general} can be used:

"John eats lunch at 1.00" is {definite – indefinite\general – circumstance}.
"Judges eat lunch at 1.00" is {definite\general – indefinite\general – circumstance}.

Elements {definite\general} are therefore generic and {indefinite\general} are nonspecific.

Some languages mark a generic noun with a definite article and a nonspecific noun with no article:

Italian: "Il vino fa male alla salute." "Wine is bad for your health."
[The wine makes bad to-the health.]
"Vendono fiori." "They sell flowers."

Spanish: "Odio las novelas di ciencia ficciòn." "I hate science fiction novels."
[I-hate the novels of science fiction.]
"Escribo novelas di ciencia ficciòn." "I write science fiction novels."
[I-write novels of science fiction.][53]

German: "Der Kampf um die Freiheit der Rede geht weiter."
"The struggle for [the] freedom of speech continues."
"Der Kampf um Freiheit geht weiter." "The struggle for freedom continues."[54]

Hungarian:
"A bálna a legnagyobb emlősállat." "Whales are the largest mammals."
[The whale the largest mammal.]
"Minden este János levest főz." "Janos makes soup every night."
[Every evening Janos soup cooks.][55]

Many languages can mark a verb as general rather than specific:

Spanish: "El cobre es ideal para los cables." "[The] Copper is $_{(general)}$ ideal for [the] cables."
"Estaba rojo de vergüenza." "He was $_{(specific)}$ red with shame."[56]

Welsh: "Cerddai ef dros y mynydd yn yr haf."
"He used to walk over the mountains in summer."
[Walked $_{(general)}$ he over the mountain in the summer.]
"Euthum i am dro ar hyd y traeth." "I went for a walk along the beach."
[Went $_{(specific)}$ I for walk along the beach.][57]

Hindi: "maĩ bharāt meĩ hindī boltā hū̃" "I speak Hindi in India."

[53] Butt & Benjamin, 26.
[54] Lockwood, 184.
[55] Rounds, 83, 91.
[56] Butt & Benjamin, 310, 312.
[57] Bowen & Rhys Jones, 113, 132.

[I India-in Hindi speaking $_{(general)}$ am.]
"vah mujhse hindī me˜ bolī˜" "They spoke to me in Hindi."
[They to-me Hindi-in spoke $_{(specific)}$.][58]

Swahili: "Kila mwaka baba yangu hulima shamba la mpunga."
"Every year my father cultivates a field of rice.
[Every year father my cultivates $_{(general)}$ field of rice.][59]

Inuit: "Quinartuuvuq." "He is amusing." [Amusing $_{(general)}$-is-he.]
"Quinarpuq." "He was amusing." [Amuse $_{(specific)}$-he.][60]

We now turn to a feature of general sentences, which is that a {circumstance} which qualifies an {indefinite} comment can itself be qualified, in a way which does not arise with a specific comment. Let us consider parallel specific and general examples:

"The professor gave a lecture at 10.30".
"The professor gives lectures at 10.30."

We may apply a phrase beginning "except…" to the second sentence but not the first:

*"The professor gave a lecture at 10.30 except…"
"The professor gives lectures at 10.30, except on Fridays when he gives them at 11.00."

In the first example, which is specific, {circumstance} enables a subsequent sentence to distinguish the {indefinite} element, in this case "a lecture", and so to refer to it: "the lecture which took place at 10.30". In the second example, which is general, {circumstance} assigns bounds or limits to a {indefinite} and nonspecific element, in this case "lectures", so that a subsequent sentence can treat them as a bounded or generic class and so refer to them: "the lectures which take place at 10.30 except on Fridays when they are at 11.00". The expression "except…" qualifies these bounds.

The expression "except…" can also apply to an indefinite identification sentence with a specific topic:

"The Vicar of Bray was Protestant except under Queen Mary I."
"Harold Wilson was Prime Minister from 1964 to 1976, except from 1970 to 1974 when Edward Heath was Prime Minister."

It does not apply to a definite identification sentence with a specific topic:

*"Harold Wilson was the Prime Minister in 1964, except…"

This indicates that the comment of an indefinite identification sentence with a specific topic is not specific, but general. "The Vicar of Bray was Protestant" and "Harold Wilson was Prime Minister" assign their topics to a class of entities, which if not qualified by a {circumstance} are unbounded and so nonspecific. An "except…" expression then qualifies the {circumstance} further, but the comment remains general and does not thereby become a specific entity. "Harold Wilson was Prime Minister from 1964 to 1976, except from 1970 to 1974" can be described as:

$\{\text{object} - \text{role} - \text{competence}_1\}$ $\{\text{not}_1 - \text{competence}_2\}$.

It can also apply to any indefinite attribute or verb which does not have a specific object or target:

"The weather is good, except that it rained yesterday."
"She was walking, but occasionally stopped to look at the view."
"I like chocolate, but not milk chocolate."

[58] McGregor, 18, 73.
[59] Perrott, 56.
[60] Fortescue, 302.

In these sentences, the attribute or verb are again nonspecific, and relate to a class of qualities or actions which are not specified. The "except…" or "but…" expressions limit the class of qualities or actions, without making them specific. Another test of a nonspecific comment is that the adverbial "generally" or "in general" can be applied:

"The professor generally gives lectures at 10.30, except..."
"The Vicar of Bray was generally Protestant, except…"
"Harold Wilson was generally Prime Minister from 1964 to 1976, except…"
"The weather is generally good, except…"
"She was walking in general, but…"
"In general I like chocolate, but not…"

Finally, we can apply an "except…" expression to an identification sentence with a generic topic and nonspecific comment:

"Cabbage, except for red cabbage, is a green vegetable."

This has the discourse structure {definite\circumstance – indefinite}. The "except…" is a qualification to the {circumstance} which in this case is the same as the topic.

Inference

We have so far considered six ways in which discourse connects sentences together: identity, selection, aspect, generality, addition, and alternation. Identity determines whether an entity can be referred to, selection determines which of a choice of entities is referred to, aspect determines how the occurrence of sentences relate in time, and generality determines whether a reference is to a single entity or to a class. Addition and alternation are concerned with whether two or more sentences relate to the same or a different topic or comment.

Inference is a further feature of discourse, which is concerned with the fact that the statements in a dialogue or narrative are connected in logic. This is evidently so in serious works:

"I think, therefore I am."

It is also so of all forms of informal discourse:

"It is cloudy; it will probably rain tonight."
"You must be drunk."
"Stocks are rising, and have probably reached their peak."
"You are doubtless aware that I have resigned."
"Perhaps you would like to come to dinner."
"Of course you will be welcome."

In informal discourse, the logically preceding statement may be assumed and not made: "You are staggering about; you must be drunk"; "It is generally known that I have resigned; you have doubtless heard"; "I would like you to come to dinner; perhaps you will agree;" "I have every intention to make you welcome."

These examples show that inference has two purposes: it shows that one statement follows from a previous statement, and it indicates the likelihood of the second statement occurring. The more formal the narrative, the greater is the use of "therefore" or "accordingly" to indicate the application of strict logic. The more informal the narrative or dialogue, the more frequent is the omission of the logically preceding statement, and the greater the uncertainty of the logically consequent one.

Inference is most commonly expressed by an adverbial:

"It is cloudy; it will therefore/certainly/of course/doubtless/probably/possibly/perhaps rain tonight."

Other languages treat inference as a verb, applied to the comment:

Japanese:
"Are wa Tonpuson-san ni chigainai." "That must be Mr Thompson."
[That $_{(topic)}$ Thompson-Mr doubtless.]
"Ano apāto wa takai deshō." "That apartment is probably expensive."
[That apartment $_{(topic)}$ expensive probably.]
"Gogo ame ga furu kamoshirenai." "It might rain in the afternoon."
[Afternoon rain $_{(subject)}$ fall might.][61]

Inuit: "Nuummi apinnguatsiarpuq." "It's presumably snowing in Nuum."
[Nuum-in snow-presumably-it-is.]
"Qamajunniarsivuq." "He's probably out hunting seals."
[Out-hunting-seals-probably-he-is.][62]

It is clear that inference applies to a comment. It is independent of whether that comment is definite or indefinite:

"You must be Mr Jones." "You must be a friend of Mr Jones."

If we employ an element {infer}, a sentence with inference has the discourse structure:

{definite – infer – select}/{definite – infer – indefinite – circumstance}.

{infer} can be applied to a {not} or {query}:

"You are perhaps not Mr Jones." "You are perhaps not a friend of Mr Jones."
"Doubtless you are not Mr Jones?" "Doubtless you are not a friend of Mr Jones?"
"Dr Livingstone, I presume?"

However, {infer} cannot be applied to an element which is subject to the {not} or {query}:

*"It is not so that you are therefore/doubtless/probably/perhaps Mr Jones."
*"Is it so that you are therefore/doubtless/probably/perhaps Mr Jones?"

Thus, we can for example have {definite – infer – not – select} but not:

*{definite – not – infer – select}.

The following sentences are also not meaningful:

*"They asked him to possibly come."
*"He is able to probably cook Italian food."
*"We resolved to certainly invite you."
*"He ought to doubtless answer the question."

We shall see in Chapter 15. that the words to which {infer} is applied in the above examples are {indefinable}. Since they are not known to exist, a logical deduction cannot be made concerning them.

There are adverbials which express a degree of certainty in the mind of an observer, such as "reportedly", "apparently", or "supposedly":

"He is reportedly on holiday this month."
"Apparently, she is at college this week."
"They are supposedly in possession of the funds."

These adverbials are not inferences as we have defined them. An inference expresses the factual likelihood of a statement in consequence of some previous statement. The sentences do not indicate

[61] Makino & Tsutsui, 101, 173, 305.
[62] Fortescue, 293-4.

whether the statements “He is on holiday this month”; “She is on college this week”; “They are in possession of the funds” are likely to be true or false, but instead that they have been reported or perceived to be true in the mind of a third-party observer. The statement that is reported or perceived may, however, be inferred:

“It was reported that he must be on holiday this month.”
“It appears that she is probably at college this week.”
“It is supposed that they are therefore in possession of the funds.”

Inference in discourse is similar to the function of causative adverbials in Chapter 17. (Adverbials of Causation):

“Because the speech addressed their main concerns, the audience became excited.”
“Because the wound in my leg has not yet healed, it is causing me pain.”
“Because she walks a mile every day, she keeps fit.”

These sentences could be rephrased:

“The speech addressed their main concerns. The audience therefore became excited.”
“The wound in my leg has not yet healed. It is therefore causing me pain.”
“She walks a mile every day. She therefore keeps fit.”

The difference is that a causative is in dialogue terms a single sentence, in which a causer induces an agent or instrument to act:

“The speech addressing their main concerns excited the audience.”
“The unhealed wound in my leg is causing me pain.”
“Walking a mile every day keeps her fit.”

Inference is a connection between two sentences which may be explicit or may be inferred by the speaker, and is rarely as precise as a causative or preventive.

Languages also possess a means of indicating that a statement cannot be inferred from a previous one. This is usually achieved by an adverbial or conjunction:

“It is cloudy; nonetheless, it will not rain tonight.”
“He is clever; however, he is not rich.”
“He is poor, but he is happy.”
“Incidentally, we expect to start half-an-hour early.”

These words “nonetheless”, “however”, “but”, or “incidentally” can also be represented by the element {infer}, since the discourse structure of sentences which contain them is the same as those words or expressions which imply a logical connection:

{definite – infer – select}/{definite – infer – indefinite – circumstance}.

The definition of {infer} can therefore be extended to include any element which describes the consequence or lack of consequence of one sentence upon another.