Discourse and Function: Introduction

> "Ideally, our discussion of the syntactic structure of the nuclei of kernel-sentences should be conducted within the framework of some generally accepted and universally applicable system of grammatical analysis. Unfortunately, no such system exists." (Sir John Lyons, 1994)[1]

Background and Objectives

The starting point for linguistic research, in both its history and its method, is study of the grammar of individual languages. Whichever language is examined, linguists find that it has a set of precise rules under which an utterance is considered by a hearer to be correct or not. Often a language possesses more than one such set of rules, for each of which it is said to have a dialect. However, the rules for each dialect are precise and under them an utterance is correct or not. For most major languages, a particular set of rules has become standardised as the received or standard language. We employ in this book examples from the standard versions of 20 sample languages, of which 9 are not Indo-European, supported by examples from 9 further languages.[2]

These precise rules provide a firm basis for research into each language, and is its *grammar*. The grammar of a language prescribes how words link together, and in what order, to express any meaning which the speaker wishes to convey. Most grammars, when studied in any detail, turn out to be quite detailed. The core rules may be simple, but when they are applied to all the variety of circumstances which occur in the world, the application can be complex. Much of linguistic research is dedicated to eliciting the fine detail of this complexity, in order to discern how each language addresses the needs of its speakers.

A common feature of all languages is that they possess a unit of meaning, which we call a *sentence*. Linguists have found that in general sentences have a simple core structure which can be summarised by the following terminology, and that this structure appears to be universal:

- The action or state of a sentence is its verb.
- A person or thing which is not an action or state is a noun (or a pronoun).
- A noun which engages in the action or state of a verb, and agrees with the verb, is its subject.
- In the case of a verb describing an action, the noun towards which it is directed is its object.
- The state or condition of an object after action of a verb is its complement.
- The state or condition of a noun is an adjective (or attribute).
- A state or condition of a verb or adjective is an adverb.

This terminology, which we can call "conventional", allows sentences to be divided into transitive, which consist of "subject-verb-object-complement" and intransitive, which are "subject-verb-complement", although the order of the elements may vary. Originally conceived to interpret the grammar of Latin and Ancient Greek, it adequately describes the structure of such straightforward sentences as:

> "I read your book today"; "She went to London by train"; "The train is late";

and many others of the almost unlimited number of sentences which any language can construct. However, linguists have only been able to apply it to certain sentence structures by distorting or altering the terms, or by devising additional categories such as "topic", "comment", or "ergative". For example, linguists have puzzled over what is the subject of the Italian:

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[1] Lyons, 469.

[2] The 20 languages are English, French, Spanish, Italian, German, Russian, Welsh, Irish, Finnish, Hungarian, Modern Greek, Turkish, Written Arabic, Persian, Hindi, Malay/Indonesian, Chinese, Japanese, Swahili, and Inuit (West Greenlandic). The 9 other languages are Serbian, Tagalog, Maori, Samoan, Hausa, Basque, Avar, Latin, and Akkadian. References to quotations from all these languages are given in Chapters 13. to 17.

"Mi piace cioccolato." "I like chocolate." [To-me pleases chocolate.]

Is it "cioccolato", which is in object position, or "mi"? Or of the Japanese:

"Watashi wa Eigo ga wakaru." "I understand English."
[I (topic) English (subject) is-understandable.]

which has both a topic and a subject, or of the Hindi:

"usne kitāb likhī" "He wrote the book." [He (agent) book written.]

where the verb agrees with the object. Moreover, what is the subject and verb of the Russian:

"U menya kniga." "I have a book." [With me book.]

or of the Welsh:

"Bydd yn rhaid i mi godi." "I shall have to get up." [Will-be in necessity to me rise.]

or of an "impersonal" sentence, such as:

"It was by John that the ball was hit."?

European languages include "be" in the category of verb, so that "The weather is fine" and "The Chairman is Jack Smith" fit into the "subject-verb-complement" pattern. However, many languages do not have a verb "be", or do not use it in the present tense. What is the verb in these instances?

Arabic: "al-ḍawʔu nāṣiʕun" "The light [is] clear."
"hāʔulāʔi hunna banātī" "These are my daughters." [These they daughters-my.]

Indonesian:
"Dia amat sangat kaya." "He [is] exceedingly rich."
"Ini keputusan saya." "This is my decision." [This decision me.]

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

Similarly, many European languages possess a verb "have", but others employ a different construction for this concept. In these constructions, the subject and verb may not be evident:

Finnish: "Rasialla on outo historia." "The box has a strange history."
[Box-at there-is strange history.]
Hungarian:
"Jóska feleségének jó állása van." "Joska's wife has a good job."
[Joska wife-his-to good job-her is.]

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

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

Turkish: "Evin bahçesi var." "The house has a garden." [House-of garden-its there-is.]

Arabic: "lahu banūna fī l-jāmiʕati" "He has sons in the University."
[For-him sons in the-University.]

Hindi: "mere pās ek gāṛī hai" "I have a car." [Me-with a car is.]

Maori: "He pōtae hou tō Hine." "Hine has a new hat." [A hat new the-of Hine.]

These conceptual difficulties occurs because in conventional terminology "verb" and hence "subject" are not defined with sufficient precision. A similar lack of clarity arises with "object". We noted that in conventional terms a transitive verb operates directly on an object, while an intransitive verb does not. However, there are many verbs which are "transitive" in one language and "intransitive" in another:

French: "Je lui ai résisté." "I resisted him." [I to-him have resisted.]

Italian: "I ragazzi hanno ubbidito al professore."
          "The boys [have] obeyed [to] the teacher."

Russian: "Ona igraet na pianino." "She is playing [on the] piano."

Persian: "bar došmanan taxtand" "They attacked the enemy." [On enemy they-attacked.]

Hindi: "hamne duśman par hamlā kiyā" "We attacked the enemy."
                                        [By-us enemy-on attack made.]

Samoan: "Sa e va'ai ia Malia i le asō?" "Have you seen [to] Mary today?"

In English, one verb can be "transitive" while another with the same meaning is "intransitive":

"She met her friend."   "She met with her friend."
"We attended the meeting."   "We came to the meeting."
"She tackled the problem."   "She dealt with the problem."
"I processed the batch."   "I worked on the batch."
"She visited her neighbour."   "She called on her neighbour."

These inconsistencies bring into question the concept of "object". Is an object a target towards which the verb is working, or a patient which it alters?

These dilemmas are not new. In the same section of his standard work on syntax quoted above, Lyons put forward six kernel sentences, comprising six nuclear components: noun-phrase, verb, noun, adjective, locative, and possessive, with an optional copula. J.M. Anderson[3] proposes a set of four core semantic relations (erg [ergative], abs [absolute], loc [locative], and abl [ablative]), to which he later adds a fifth (prt [partitive]). However, both scholars have to sustain these generalisations by detailed argumentation, qualifications, and exceptions. Moreover, Anderson's system does not include the action or state expressed by the verb.

In his well-known work on ergativity, R.M.W. Dixon[4] maintains that all languages function with three primitive relations: A (transitive subject), S (intransitive subject), and O (transitive object). In discussing the concept of "subject", he assigns A and S to the "underlying-structural category of subject", while passive subjects, for example, are assigned to a "derived structure". However, the ordinary user of English will regard "boy" in "The boy stood on the burning deck" and "The boy was bitten by the dog" as equally the subjects of their sentences, without being concerned that one is "underlying-structural" and the other is "derived-structural".

Our contention is that resolution of the problem does not lie with searching for a yet more recondite general definition of "subject", "verb", and "object". The terms are of course meaningful, but only with respect to particular sentence structures. For each sentence type, "subject", "verb", "object", etc have a different function, not necessarily the same in another sentence type. A "transitive" sentence such as:

"Mary planted the tree"

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[3] Anderson, 173, 295.
[4] Dixon, 6, 127.

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has no more in common with another "transitive" sentence such as:

"John's arrival pleased Mary" or "Mary heard a sudden noise"

than it has with an "intransitive" sentence such as "Mary got up" or "Mary felt ill" or "Mary has fair hair". The five sentences convey different things, and their elements have different functions.

Moreover, use of the terms "subject", "verb", "object" etc, has been confused with two other considerations. One arises from the fact that, in most sentences, the subject is the topic (what the sentence is about) and the verb is the leading element in the comment (what the sentence says about it). Definitions have accordingly attempted to reconcile "subject" as a topic, "subject" as the agent of a transitive verb, and "subject" as the patient of an intransitive verb. This reconciliation is not possible. The topic-comment structure is independent of the elements which make a sentence up, such as agent, action, state, patient, beneficiary, etc.

The second cause of confusion is the fact that, in many sentences, a subject is a person, an object is a thing, and a verb is an action. Definitions have accordingly attempted to reconcile "subject" as a person with "subject" as the instigator of an action, and "object" as a thing with "object" as an entity undergoing some process. Definitions of "verb" have tried to reconcile "verb" as an action with "verb" as an auxiliary such as "be" or "have" which connects the subject to a quality or possession. Again, we do not believe that such reconciliations can be achieved. According to the sentence type, "subject", "verb", and "object" may be a person, object, action, state, or relationship.

The task of this book is to address this lack or precision in the terminology of grammar, which arises despite that fact that, as we have noted, grammar is very precise. To do so, we do not follow the route of further researching the details of grammar, which for each of our sample languages has already been thoroughly analysed. Our approach is to consider the purpose of grammar, namely how languages describe, question, or comment upon the situations in the world that the speaker of a language encounters. In doing this, we find that we can formulate those situations in terms of two conceptual models, which are independent both of each other and of grammar. The common feature of both models is that they describe the purpose of a sentence.

The first purpose of a sentence is that it introduces new information for discussion, or refers to that information and conveys new information concerning it, or asks a question or makes a suggestion concerning it. In addition, it can deny the information or suggestion. By this means, a sentence fits into a sequence of sentences to build up a dialogue or narrative. We call this purpose of language *discourse*. The way in which a sentence satisfies the requirements of discourse is its *discourse structure* and study of it is *discourse analysis*.

Secondly, a sentence describes an action or state which someone or something is engaged in or undergoing. It has to model all the situations in the world which a speaker may encounter and wish to discuss. Since the world is always more complex than any system for describing it, language is continually evolving through its vocabulary and grammar to adapt to it. Nevertheless, it is possible to categorise the principal actions and states, and to study how languages equip themselves to express them. We call this purpose of language its *function*. The way in which a sentence describes functions is its *functional structure* and study of it is *functional analysis*.

Equipped with these theoretical models, we find that grammar does indeed present an exact mechanism for describing the world, and that its terminology can be adapted to provide robust definitions for subject, verb, object, complement, and adverbial which overcome the limitations we have identified. We give this more precise terminology the term *components*. A grammar based on components is called *component structure* and its study is *component analysis*.

Until we can demonstrate component structure in Chapters 16. and 17., we shall refer to the grammatical terms "subject", "verb", "object", "complement", "adverbial", "noun", and "adjective" or "attribute", in the conventional or empirical senses described above.

Discourse Structure of a Sentence

By discourse, we mean the dialogue or narrative within which a sentence is expressed. A sentence supplies or enquires into information within that discourse. For this purpose, a sentence consists of two parts: information which is already known to the speaker and which the speaker assumes is also known to the hearer, and new information about that known information. If the new information is to be useful, the known information must both exist and relate to something or someone which is identified. Both known and new information consists of words.

We call the known information the topic and the new information the comment. The comment is the core of the sentence, and can take many forms: the sentence can state that a comment exists (in which case there is no topic), can select a comment from a class of known or new information, can deny that a comment exists, can deny a connection between the topic and the comment, can enquire whether a comment exists, can enquire whether a connection exists between the topic and the comment, or can hypothesise whether the comment might exist. Each of these different forms of comment require a different type of sentence. In order to deliver it, a language has to mark the topic and the comment in some way, and to mark the different types of comment to indicate what is being communicated.

The way in which languages differentiate the topic and comment of a sentence is its means for delivering discourse structure. It seems that all languages have a basic sentence pattern which is termed "subject-predicate"[5]. The predicate includes a core element, the verb, which describes an action or state which applies to the subject. The basic sentence structure is therefore "subject-verb-etc", where "etc" is the rest of the predicate. There is therefore a simple model for discourse structure: the subject is the topic and the predicate, led by the verb, is the comment. The meaning of the sentence depends on what action or state the verb is conveying about the topic.

Unfortunately, this simple model only applies if the verb is sufficiently flexible to describe all the possible actions or states which apply to all topics. In most languages, this is not the case. Topics and comments can take any form, since they are determined by what the speaker needs to talk about and what he/she needs to say about it. Languages are usually well equipped if the topic is a human agent of an action or is a person or object in some state or condition. However, what if the topic is an inanimate instrument, or a person or object on, to or for whom an action is occurring, or the action or state itself, or the time or place that the action occurs? Most languages do not provide verbs to describe the actions or states of all these topics. For example, in Japanese and Russian a subject cannot be a inanimate instrument, so an impersonal construction is adopted:

"Tamago de arerugī ni naru." "Eggs cause me an allergy." [Egg-by allergy-to becomes.]

"Podval zalilo vodoi." "The cellar was flooded." [Cellar (object) it-flooded by-water.]

In Welsh, Finnish, and Hungarian, an impersonal expression is used if a subject is also the object of the verb:

"Gwisgir y wisg Gymreig ganddi hi." "Welsh costume is worn by her."
[There-is-wearing the costume Welsh by her.]

"Ovi suljetaan avaimella." "The door is closed with a key."
[Door one-closes with key.]

"Óránként közlik a hireket." "The news is broadcast every hour."
[Every-hour they-broadcast the news.]

Moreover, in discourse structure a topic can be either a single word, or most of the sentence:

"What did he do today?" "He went to town at 10.00."
"When did he go to town today?" "He went at 10.00."
"What happened today?" "He went to town at 10.00."

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[5] This is so even for languages classed as ergative, in which the subject may be an agent which is marked.

The subject of these three pairs of sentences is "he" and the verb is "went". However, the topic of the first pair is "he", of the second pair is "his going to town today", and of the third pair is "today".

English does not possess a grammatical verb for all these purposes. Since every sentence refers to an action or a state, every sentence has a verb and a subject which the verb applies to, but these may not correspond to the discourse structure. Where they do not, a sentence construction is used to mark the topic and comment.

The first part of this book (Chapters 1. to 5.) is concerned with how this problem is overcome. For each sample language, we examine its discourse structure: how the topic and comment are marked for all the varieties of topic and comment, and how the various types of comment (statement, negative statement, question, etc) are expressed. For this purpose, each word is shown to possess one of three classes of identity: known information (definite), new information from a class of information which is known (indefinite), or information whose existence is not certain. For this last category of unknown information we have devised the new term "indefinable"; for example, many languages employ a subjunctive for indefinable verbs. Indefinable words occur in some questions and negative statements, and in sentences which refer to suppositions and proposals.

In Chapters 13. and 14., we present a formal notation for analysing the discourse structure of any sentence in terms of what we call elements, that is a class of words fulfilling a certain purpose in discourse [6] . Discourse elements include {definite}, {indefinite}, {indefinable}, {select}, {circumstance}, {not}, {but}, and {query}. A topic is by its nature unique and {definite}. A comment is by its nature selected from a class of possible comments. If the class is definite, the comment is {select}. If the class is indefinite, it is given an identity by a definite {circumstance}:

> "She took the train to work (not her car)."
> "She drove to work in her car (not took a train from the station)."

An indefinite comment in a question or negative sentence is not possible. The elements of such sentences are {definite} or {indefinable}:

> "Did she take a train to work?" "She did not take a train to work."

The comments of all classes of sentence can be represented by means of one or more of these discourse elements. It is shown that an existential sentence consists of the elements {indefinite – circumstance}. The utility of this approach appears when it is applied to sentences such as:

> "Opening his ledger, he entered his accounts."
> "He entered his accounts, as he did every month."
> "He entered his accounts, which showed a profit."
> "He diligently entered his accounts for that month."

These sentences contain a qualifier which adds further information, that is a non-restrictive qualifier. Using the formal notation, we can show that they have more than one comment and/or more than one topic. Each is in fact two sentences, in the same way that other compound sentences are understood:

> "He opened his ledger and entered his accounts."
> "He entered his accounts; he did so every month."
> "He entered his accounts; they showed a profit."
> "He entered that month's accounts; he did so diligently."

Conversely, other apparent compound sentences contain restrictive qualifiers, that is a qualifier which assigns an identity to an element. They are a single sentence:

> "He opened a ledger to enter his accounts."

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[6] Elements are sometimes called "arguments", a term in mathematics with the sense "a variable in a functional expression", where the functional expression is a verb (see Matthews, 24-5). However, in our methodology the verb itself is an element, which is therefore broader than "argument" as conventionally defined.

> "He entered his accounts for that month."
> "He entered an account which showed a profit."
> "He was diligent in entering that month's accounts."

A great many sentences refer not to single instances of nouns or verbs, but to classes or groups of them. Our analysis of information into definite, indefinite, and indefinable must also apply to such groups. To achieve this, we distinguish between classes which are defined and limited ("generic") and those which are undefined and unlimited ("nonspecific"). For example, in:

> "Meetings take place on Fridays."

"Meetings" is generic while "Fridays" is nonspecific. The reverse is true in:

> "On Fridays, meetings take place."

The instruction:

> "Dogs must be carried"

can only be understood correctly if "dogs" is nonspecific.

The relationship between a generic and a nonspecific group is the same as that between a definite and indefinite entity, and in this way the definite/indefinite distinction is preserved. Many languages make the distinction more explicit, for example in Spanish:

> "Odio las novelas di ciencia ficciòn." "I hate science fiction novels." (generic)
> [I-hate the novels of science fiction.]
> "Escribo novelas di ciencia ficciòn." "I write science fiction novels." (nonspecific)
> [I-write novels of science fiction.]

Discourse structure is the way in which a language fits a sentence into the discourse of which it is a part. In addition to the distinction between topic and comment, the time over which a sentence occurs (its occurrence) can also be related to the occurrence of other sentences before and after it:

> "Having shut the door, he went to town." "He was walking in town when he met Mr Jones."

Because the verb of a sentence describes its action or state, its relative occurrence is generally expressed by marking the verb appropriately. This feature of a verb is called its "aspect". An aspect can be a permanent state, a completed action, an action which is not completed when another action occurs, an action which is about to occur, or an action or state which occur earlier or later than expected. By adding suitable additional elements to the definite/indefinite/indefinable terminology of a sequence of sentences, their aspect is represented by the formal notation we have developed.

A further feature of dialogue or narrative is that the speaker may wish to indicate that a sentence is or is not a consequence of an earlier one:

> "I feel unwell; perhaps I shall not go to work today."
> "I feel unwell; nevertheless, I shall go to work today."

We us the term "inference" and the element {infer} for this logical consequence. Inference may be precise or vague, depending on whether the discourse is formal or informal. It expresses the degree of likelihood that the consequence sentence will or will not occur, for example by use of the adverbials "therefore", "doubtless", "probably", "perhaps", "however", or "nonetheless".

Functional Structure of a Sentence

By function, we mean that action or state which a sentence describes. Our approach to functional analysis is to classify and survey, so far as possible, all the processes and states which languages must describe, and to identify the functional elements which are needed for each one to construct a meaningful sentence. A functional element is an idea such as {agent}, {object}, {instrument},

{target}, {recipient}, and {beneficiary}, which stand for classes of words which perform a particular function in a sentence. Functional analysis is different from discourse analysis, in that while discourse analysis refers to the connection of a sentence with other sentences, functional analysis is only concerned with the action or state which a particular sentence describes. Since this action or state can be expressed independently of any other action or state, functional analysis is contained within the sentence. Moreover, since the two modes of analysis are independent of each other, any functional element can in principle be identified with any discourse element, and vice versa.

The groundwork for functional analysis is laid out in Chapters 6. to 11. By this means, we find that sentences can be classified into about 37 functional sentence types, each one defined by the functional elements which it uses. The number 37 is not especially significant, and depends on the judgement of the author on what constitutes a separate sentence type. We find that the distinction between transitive and intransitive does not seem very important. The sentences:

"The mother put the child to bed" and "The child went to bed";
"John lent Mary the book" and "Mary was given the book on loan"

have the same functional elements, but they are arranged so that a different one is the topic. The first sentence gives information on "the mother", the second on "the child", the third on "John", and the fourth on "Mary". The distinction between transitive and intransitive is more relevant to the role of the sentence in the discourse than to its functional meaning. We find also that the functional elements are the same whether the sentence relates to an action or the resultant state. The sequence of sentences:

"Julius Caesar was assassinated by Brutus" and
"Julius Caesar lay dead at the hands of Brutus";
"John lent Mary the book" and "Mary had the book on loan from John"

are relevant for following their narratives, but again they have the same functional elements. As we observe above, it is the discourse structure which determines whether a sentence describes an action or a state resulting from that action, not the functional structure.

The most basic distinction between functional sentence types appears to be between those which perform some action on an object, and result in an object being in a state, and those which describe a relationship between an object and a person. The first category of sentences has two core elements, the verb and the object:

"John cut the tree down"; "Mary wrapped the present in a box"

while the second has three core elements, the verb, the object and the person (whom we call the recipient):

"Mary reminded John of the appointment"; "John thought the idea stupid".

Sentences in the first category area analysed in Chapters 6. and 7, and are concerned with what happens to an object, and how, and what state it is in. Sentences in the second category are analysed in Chapters 8. and 9., and are concerned with what is the relationship between an object and its recipient and how that relationship arises. We have so far as possible used the traditional terminology to talk about sentences, but the new distinctions we are suggesting mean that some new terms are needed. For example, a category of sentences of the second type involves an agent causing him/herself to have something, in other words to take it. We call this construction "adoptive":

Spanish: "Se gana la vida bailando." "She earns her living dancing."
[To-herself she-earns the living dancing.]

Russian: "Mogu sebe predstavit', chto on govoril." "I can imagine, what he said."
[I-can to-myself imagine, what he said.]

In another category of sentence, called an "appliance", the elements object and instrument are combined:

Arabic: "istaʕmala l-sarīra maqʕadan" "He used the bed as a seat."
[He used-himself the bed a seat.]

Chapter 10. is concerned with the additional functional elements "for" or "against". Chapter 11. describes sentences whose outcome is another sentence.

Chapter 12. shows how the various functional categories of verb can be expressed as nouns. Across the functional classification, nouns are divided into three groups:

Event noun: The instrument or event of a human activity.
Role: The participant of a human activity.
General noun: A general category of the other two.

In Chapter 15., the 37 different functional sentence types are summarised in terms of the elements which is unique to each one, such as {create}, {transform}, {locative}, {time}, {constitute}, {role}, {possession}, {perceive}, {opinion}, {able}, and {error}, and the elements which are necessary to complete the sentence but are common to more than one sentence type, such as {agent}, {object}, {attribute}, {location}, {resultant}, {target}, {recipient}, and {beneficiary}. Each of these elements is so far as possible given a precise definition. The following five randomly selected examples illustrate the notation:

"Sheila mowed the grass very short"   {agent – transform – object – attribute};
"This building has 25 baroque details"   {object – constitute – attribute};
"Mary is the elected Treasurer of the Society" {object – role – competence – target};
"We were pleased by the performance of the play" {recipient – opinion – definite};
"Mr Smith can speak French"   {recipient – able – definite –
                                                indefinable}.

Component Structure of a Sentence

Chapters 16. and 18. re-examine the structure of a sentence which arises from a study of its grammar, and which accordingly uses the standard grammatical terms, in the light of our two conceptual models of discourse and function. In so doing, they provide more robust definitions of the grammatical concepts of subject, verb, object, and complement, called the *components* of a sentence. They also show how the discourse and functional methodologies can be aligned.

Chapters 6. to 12. and 15. of the book attempt to classify all sentences in terms of about 37 functional types, each of which is identified by:

•   a single component which is unique to the functional sentence type, and which expresses its action or state;
•   components which are common to more than one action or state, but whose combination is unique to the functional sentence type.

We may call the component which expresses the action or state of the sentence, and which is unique to its functional sentence type, its {verb}, and in this way the functional approach is aligned with the conventional usage "verb". We may call all the other components in a sentence, whose combination is unique to the functional sentence type, {noun}. Since a sentence conveys only one action or state, it has only one {verb}, but depending on its nature may have more than one {noun}.

If we define a component {subject} as the {noun} which is engaged in the action or undergoing the state of the {verb}, so that {subject – verb} is a semantic unit, we have a definition of "subject". By suggesting that {subject} is the topic of a sentence, we have a way of aligning it also with the discourse structure. However, as noted above this interpretation assumes that the verb of every sentence in every language is sufficiently flexible to form a semantic unit with its topic. While this is so for the great majority of sentences, it is evidently not so in all instances. The methodology also requires that a {verb} always means a concept in the world, excluding auxiliaries such as "is" or "have". A {verb} is both the auxiliary and the word that it supports. In the following sentences, the underlined words are {verb}:

"I have an interest in stamp-collecting." "This is difficult"; "She is in love";
"He is a grocer"; "They are in the shop"; "The computer was on".

It also appears that every sentence has a component which the sentence places in a state or relationship, which we can call its {object}. The state or relationship in which the sentence places the {object} is its {complement}. This also supplies a definition of transitive and intransitive: a transitive sentence is one whose {subject} is different from its {object}:

"He drove his wife to work"

while an intransitive sentence is one whose {subject} and {object} are the same:

"His wife drove to work".

While this is hardly innovative, it also means that that the following are also intransitive:

"He followed his wife to work". "His wife was at work." "He was driven to work."

Since a {verb} of an existential sentence is a state of existence, it is the background information (underlined):

"There is a fly in the room." "There is a commotion outside."

Moreover, the subject "a fly" or "a commotion" are indefinite by the nature of an existential sentence, and can therefore not be the topic. If we assume that the topic of a sentence is its {subject}, they cannot be the {subject} and must be the {object}. It follows from this argument that the component structure of an existential sentence is {object – verb}.

One limitation of the component description of sentence structure is that the concepts of {subject}, {verb}, {object}, and {complement}, even on our more rigorous interpretation, do not adequately describe a sentence. There are in addition the elements {agent}, {instrument}, {location}, {base}, {participant}, {target}, {attribute}, {recipient}, {beneficiary}, and {causer}. Any of these elements can be the {subject} if the language so permits, but if they are not, they must be expressed with cases or prepositions such as "by", "at", "on", "from", "with", "to", or "for". These are commonly treated as adverbials but are in fact an integral part of the sentence. The only one which is universally recognised is the {recipient}, which is called the "indirect object" marked with "to" in "Mary gave the book to John". In our terminology this is {subject – verb – object – recipient}.

We have proposed the usage {noun} for all those components in a sentence which are not the {verb}. In the conventional usage, sentences often contain a main verb and a subordinate one:

"The man whom you have just spoken to is Mr Jones."
"You have just spoken to a man who is Mr Jones."

The clauses "whom you have just spoken to" and "who is Mr Jones" are restrictive relative clauses whose purpose is to identify "the/a man". They are therefore part of the {noun} "the/a man". The sentence:

"You have just spoken to our Chairman, who is Mr Jones"

comprises in reality two sentences: "You have just spoken to our Chairman; our Chairman is Mr Jones." A subordinate verb is also found in:

"We are glad that you are well". "We hear that you are well". "We wonder if you are well".
"They said that you are well". "They suggested that you might be well".

In all these sentences, "that you are well" is a {noun}, and they could equally well be expressed:

"We are glad at your health". "We hear of your health". "We wonder about your health".

"They reported your health". "They speculated on your health".

Chapter 18. applies these definitions of {subject}, {verb}, {object}, and {complement} to questions and their replies, both non-negative and negative. These are shown to be divided into verbal sentences, which query, assert, or deny an action or state:

"What did he do today?" "He went to town at 10.00";
"Did he go to town today?" "Yes"/"No";

nominal sentences, which question, assert, or deny the connection of an entity to an action or state:

"Who went to town today?" "John, not Mary";
"Did John go to town today?" "Yes"/"No";

complementary sentences, which query, assert, deny, or reverse a state or condition in which a sentences places an {object}:

"Where did he go today?" "He went to town, not to work."
"He unlocked the door." "She withdrew her approval."

adverbial sentences, which query, asset, or deny the state or condition of an action or state:

"When did he go to town today?" "He went at 10.00, not at 11.00";

and gerundial sentences, which query, assert, or deny the state or condition of the {subject} of an action or state:

"Why did he go to town at 10.00?" "To catch the bus";
"How was he when he went to town today?" "Happy, not sad."

In this way, components are used to distinguish between the various topic-comment constructions mentioned earlier. For both a verbal and a nominal sentence, it is shown that the elements {not} or {query} are the action or state expressed by the sentence. Examples are quoted of languages for which this is explicit in the construction of a negative sentence or question:

Welsh: "Nid wyf i yn byw yn y wlad." "I do not live in the country."
[Not am-I in living in the country.]

Irish: "An bhfacaís i n-aon áit iad?" "Have you seen them anywhere?"
[Query that-you-have-seen in any place them?]
"Cá bhfuil tigh Dhomhnaill Uí Chonaill?" "Where is Daniel O'Connell's house?"
[Where that-is house of-Daniel O'Connell?]

Finnish: "Minä en osta taloa." "I shall not buy a/the house." [I not buy house (partitive)].

Hausa: "Ìnā ka tàfi dà mōtàrmù?" "Where did you go with our car?"
[Where which-you-did go with car-the-our?]

Maori: "Kāhore ōu hoa i te whare kura." "Your friends are not at the school."
[Not your friends at the school.]

The Adverbial Component

Chapter 17. examines the various expressions and compound sentences which are collectively termed "adverbials" in grammar, that is an expression (underlined) which appears outside the main sentence structure:

"We held the meeting in the Board Room." "We held the meeting at 9.00."
"Because he was ill, he did not attend the meeting." "Although ill, he went to the meeting."
"If he is well, he will attend the meeting." "As expected, he attended the meeting."

For this purpose, an analytic device is used which we call an "adverbial sentence". The sentence containing an adverbial is reformulated with the adverbial as predicate (underlined):

"The meeting took place in the Board Room." "The meeting took place at 9.00."
"His illness prevented his attendance at the meeting."
"His illness did not prevent his attendance at the meeting."
"His attendance at the meeting depends on his fitness."
"His attendance at the meeting had been expected."

The subject of an adverbial sentence is the {verb} which the adverbial qualifies. By studying different adverbial sentences, we divide them into at least nine types. Each type of adverbial has a distinct discourse and functional structure in relation to the sentence that it qualifies. On this analysis, what appear to be a causal adverbial "because he was ill" and a concession adverbial "although ill" are not in fact adverbials but main sentences; the adverbials in each case are "he went to the meeting."

The above examples are of adverbials which:

- qualify a {verb};
- contain new information beyond the qualified {verb}.

This definition is narrower than the conventional description, and is designated as the component {adverbial}. It is distinguished from two usages conventionally described as adverbials: those not providing new information, and {gerund}. A conventional adverbial not providing new information is a {circumstance} to an indefinite {verb} or {object}:

"We held a meeting at 9.00 in the board room."
"He took some medicine for his illness."
"She booked a room for the meeting."

Such a sentence cannot reformulated as an adverbial sentence, but as an existential sentence:

"There was a meeting at 9.00 in the Board Room."
"There was some medicine he took for his illness."
"There was a room which she booked."

A {gerund} expresses the state or condition of an {agent} performing an action:

"We willingly held a meeting in the Board Room."
"He happily did as he was asked."

Although "willingly" and "happily" appear to be adverbials, an adverbial sentence is artificial or not possible:

*"Our meeting in the Board Room was willing."
*"His doing as he was asked was happy."

We therefore define an {adverbial} as a qualifier of a {verb} which is non-restrictive, that is it does not identify any element in the sentence, but provides new information on the {verb}.

Chapter 19. contains worked examples which apply the discourse and functional methodology to different sentence constructions.