Constituent Order
in
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Constituent Order in Functional Grammar: Synchronic and Diachronic Perspectives

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To Margaret, Elizabeth, Edward and Sarah

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Chapter 1
Introduction

For many years the dominant emphasis within linguistics may fairly be said to have been on the structure of language rather than on its function as a means of communication. Nevertheless, the past decade has seen a perceptible growth of interest in the functional view of language and an increase in awareness of the importance of taking communicative factors into account when describing and explaining linguistic structure.

The fundamental principles of the functional approach to language are well summarised in Dik (1989b:4-7). One of the most important of these tenets is that because communication involves the actual use of language in real situations, adopting a functional approach entails regarding pragmatics as the over-arching framework to which other aspects of linguistics must be related. According to this view, then, semantics subserves pragmatics, and syntax in turn subserves semantics. The grammatical model which Dik advances to incorporate this principle is known as Functional Grammar (FG).

The purpose of the present book is to explore the description of Constituent Ordering (CO) within the FG framework. The aim is to show how it is possible to achieve a comprehensive description of CO and of CO change which takes properly into account not only the formal or structural properties of ordering but also the part which CO plays in linguistic communication. The first step will be to survey past work on CO. Subsequent chapters will then be devoted in turn to the synchronic description of CO and to the problem of accounting for CO change from the functional point of view. The above will involve modifying and extending Dik's original proposals for the treatment of CO in FG, while remaining true to the basic principles on which the functional approach is founded.

Constituent Order: Structure and Function

2.1 FUNDAMENTALS OF POSITIONAL SYNTAX

Any framework of grammatical description, whether functional in orientation or not, must be able to cope with the formal properties of CO;[1] otherwise it cannot possibly be descriptively adequate. It is, therefore, appropriate to begin with an outline of these properties, in order to appreciate the purely syntactic dimension of what has to be dealt with by the CO mechanism of FG.

The area of grammar concerned with CO has been referred to by previous writers, e.g. Strang (1970), as **positional syntax**. This term will likewise be employed here, and is to be understood as covering the ordering of words, phrases and clauses within the sentence. The present section is thus devoted to the basic principles of positional syntax.

2.1.1 Linear structure

Order is a relational concept, and the order of co-occurring grammatical units is generally recognised in linguistics as one of the most fundamental syntactic relationships (see, e.g., Robins 1980:170). The order of constituents is thus seen as an aspect of the structure of the sentence, and is often referred to as its **linear structure** (see, e.g., Lyons 1968:209). The linear structure of any sentence containing more than one word can be described in terms of a series of one or more elementary statements of the form X < Y (i.e. X precedes Y), Y < Z, etc., where X, Y and Z are either grammatical constituents or parts of constituents (cf. 2.1.2 below).

Linear structure is usually contrasted with **hierarchical** structure. Whereas the former is based on precedence relationships, the latter is to be described in terms of either the relationship of dominance or that of dependency (see, e.g., Matthews 1981:72). Moreover, the two types of structure are logically independent. Thus, it is possible to find pairs of sentences with the same constituent structure but different linear structures, for instance (1a) and (1b), or with the same linear structure but different hierarchical structures, for example (1b) and (1c):

(1) (a)

Finish   the   road   off

(b)

Finish   off   the   road

(c)

Finish   off   the   road
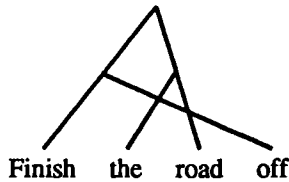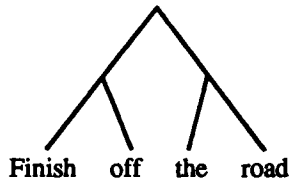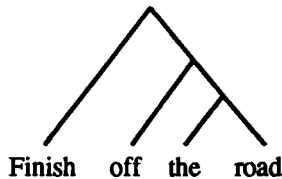
Clearly, both types of structure need to be specified if the differences between (1a), (1b) and (1c) are to be describable.

2.1.2 *The three facets of positional syntax*

Although it is possible to describe the linear structure of any sentence in terms of precedence relationships, matters are far less straightforward when it comes to writing rules which actually place constituents in the appropriate order. A well-known example of the kind of problem that arises concerns the placement of the finite verb in declarative main clauses in English as compared with German (cf., e.g., Fourquet 1938:20). In English the crucial consideration is the position of the verb relative to its sister elements (i.e. those elements, such as the subject, with which it co-occurs), whereas in German what matters is that the finite verb should normally be placed second in the clause. Plainly, rather different types of rule are involved here, and the whole issue calls for some detailed discussion at this point.

The basic consideration is that positional syntax has three different facets: **relative position, proximity of position** and **absolute position.** When we formulate a statement of the form X < Y, we are making a claim as to the position of X and Y *relative* to one another, and the rules pertaining to the position of the subject relative to the finite verb in English declarative main clauses are of this type. The German rule, however, is not of the same kind, as we shall see in a moment. First, though, the syntax of relative position needs to be looked at more

closely.

Within the syntax of relative position, a basic distinction may be drawn between **positionally distinct** and **positionally non-distinct** constituents. Two constituents are positionally distinct if neither interrupts the other. Thus, in (2a) the subject *the man* and the predicator[2] *has arrived* are positionally distinct, whereas in (2b) they are not:

> (2) (a) The man has arrived.
>   (b) Has the man arrived?

In (2b) the subject is **flanked** by the predicator, i.e. it interrupts the predicator but is not interrupted by it. (For this to happen it is, of course, necessary for the predicator to be discontinuous.) In this way it is possible for parts of constituents, as well as whole constituents, to be involved in order relationships with other constituents (cf. 2.1.1 above). Again, in (3) the subject (*the man who brings the milk*) and the predicator are positionally non-distinct, but this time the two constituents **overlap**, i.e. they each interrupt the other (and must both, therefore, be discontinuous).

> (3) Has the man arrived who brings the milk?

The occurrence of positionally non-distinct constituents represents an important complication in the formulation of the rules of positional syntax.

Clearly, the notion of *relative position* is closely related to that of *order*. Indeed, the two terms can be used synonymously in certain contexts; thus, to state the order in which X and Y occur is equivalent to stating their relative position, and vice versa. The term *sequence*, too, may be employed in the same sense. However, the term *position* can also be applied to an individual place within a linear array, whereas *order* cannot; and the term *sequence*, unlike the other two terms just mentioned, may refer alternatively to a linearly ordered *set* of co-occurrent elements. For a mathematical linguistic treatment of the order relationship, see Levin (1971).

Lyons (1968:77-9) identifies three logical possibilities for the ordering of two positionally distinct elements X and Y:

> (4) (a) XY is grammatical but the reverse order YX is ungrammatical.
>   *Example:* (i) They arrived.
>   (ii) *Arrived they.
>   (b) XY and YX are both grammatical, but the two are not equivalent.
>   *Example:* (i) Cats dislike dogs.
>   (ii) Dogs dislike cats.
>   (c) XY and YX are both grammatical, and the two are equivalent.
>   *Example:* (i) He is now free.

(ii)   He is free now.

He asserts that in case (4b), X and Y stand in a 'sequential syntagmatic relationship', since they are grammatically contrastive in these circumstances, but that the above relationship does not obtain in (4a) or (4c), where X and Y are not in contrast. By 'not in contrast' Lyons appears to mean non-distinct in terms of the expression of cognitive meaning. However, as we shall see in the next section, there are functional, and hence grammatically relevant, contrasts of other kinds besides. The view will be taken here, therefore, that Lyons has circumscribed the notion of the sequential syntagmatic relationship too narrowly, and case (4c) will be taken as applying only to instances of totally free variation.

From the mathematical point of view, the (ordered) sequences XY and YX may be regarded as the two possible **permutations** (or arrangements) of the unordered **combination** {X,Y}.[3] Given a combination of N elements, the number of logically possible permutations is equal to N! (i.e. N factorial, where N! is the product of the positive integers up to and including N). Thus, for instance, if N = 2, as in the present example, the number of permutations is also 2. If N = 3, then the number of permutations rises to 6 (viz. XYZ, XZY, YXZ, YZX, ZXY, ZYX), and so on. In actual languages, of course, the number of grammatically permissible combinations may be less than the logically possible number. Nevertheless, we can still say that if N represents the number of elements capable of co-occurring in a particular structure, and if P represents the number of grammatically permissible permutations of those elements, then $1 \leq P \leq N!$.

Haas (1973:108, 1974:533-4) has applied the notion of grammatical dependency to what we are here calling the syntax of relative position. He identifies three types of dependency, one of which is 'dependency for position'. For Haas, two constituents are dependent on one another for position if they cannot be moved relative to each other. Thus, in (5a) the predicator and complement are mutually dependent for position since they cannot be transposed, whereas in (5b) the predicator and the vocative element can have their order reversed and are therefore not positionally dependent on each other.

(5) (a)   Be quick.
     (b)   Look, David.

The second facet of positional syntax is proximity of position. Here, the most important distinction is between elements which are **contiguous** and those which are **non-contiguous**. Positionally distinct elements are contiguous if and only if they stand immediately next to each other, like the subject and predicator in (6a) or (6b):

(6) (a)   Have you a moment?
     (b)   I have an idea.

Positionally non-distinct elements are contiguous if at least part of one stands immediately next to at least part of the other, as in (7):

    (7) Has that person really finished who seemed to be intent on going on until midnight?

In this sentence, the subject *that person who seemed to be intent on going on until midnight* and the predicator *has finished* overlap; they are contiguous because part of the subject (*that person*) and part of the predicator (*has*) stand immediately next to one another. In cases where the two constituents, or parts of constituents, are non-contiguous, their distance from each other can be reckoned quite straightforwardly in terms of the number of intervening elements or parts of elements.

    A further distinction may be drawn between **adjacent** and **non-adjacent** constituents. Consider the following sentences:

    (8) (a)   He would have liked one.
          (b)   Would he have liked one?

In (8a) the constituents of the predicator, *would have* and *liked*, are arranged in such a way that *would* and *have* are contiguous, and likewise *have* and *liked*. In (8b), however, *would* and *have* are non-contiguous. Yet despite these differences, in both cases it is *have* rather than *liked* which is the nearest constituent of the predicator to *would*. This fact may be expressed by saying that in both (8a) and (8b), *would* and *have* are adjacent members of the same structure, two constituents being adjacent if and only if they are part of the same structure and no other constituent of that structure intervenes between them. It will be seen that a discontinuous structure is a syntactic unit in which at least one pair of adjacent constituents is non-contiguous.

    Proximity of position and relative position are logically independent of one another. Thus, given three freely permutable constituents {X,Y,Z}, X may precede Y and the two be contiguous (e.g. in the sequence XYZ) or non-contiguous (e.g. in the sequence XZY); or if Y precedes X, again the two may be either contiguous (as in YXZ) or non-contiguous (as in YZX). Despite this logical independence, however, it may at times be convenient to combine both facets within a single descriptive statement, such as 'X immediately precedes Y'.

    The third facet of positional syntax is absolute position. Whereas relative position and proximity of position are relationships between specified members of the same structure, the absolute position of a constituent is defined in terms of its relationship to the structure of which it forms part, without reference to any specific sister-element of that structure. One way of stating the absolute position of an element is to give its ordinal number in the sequence, starting either from the beginning (i.e. first, second, etc.) or from the end (i.e. last, last-but-one, etc.). This is the kind of statement that is required for the description of the placement of the

finite verb in German. However, in some instances it is not possible to be sufficiently precise to make statements of absolute position in ordinal terms, in which case one has to be content with less specific expressions such as 'near the beginning (or end) of'. Non-ordinal statements of this latter kind are necessary when describing tendencies such as the one whereby 'heavy' (i.e. long and/or structurally complex) elements tend, in languages generally, to be placed near the beginning or end of the clause, rather than in the middle.

When the ordinal method of specifying absolute position is used, a slight complication arises in connection with discontinuous constituents. Consider the following German sentence:

(9) Haben Sie ihn gesehen?
         have you him seen
     'Have you seen him?'

The predicator in this sentence *haben gesehen* is discontinuous, the finite verb *haben* standing first, the subject *Sie* second, the object *ihn* third and the non-finite verb *gesehen* fourth (and last). The complication is that in such circumstances the number of absolute positions exceeds the total number of complete elements, which in this sentence is three: the subject, the predicator and the object.

Absolute position, as a descriptive category, is independent of relative position and proximity of position, inasmuch as it is possible to make a statement about absolute position (such as the one pertaining to the place of the German finite verb) without making any direct stipulation in respect of the other two categories. However, it is clear firstly that if we specify the absolute ordinal position of two or more constituents, we thereby indicate their relative position, and secondly that contiguous elements will occupy successive positions on the ordinal scale. On the other hand, statements relating to the relative position or proximity of elements carry no specific implications for their absolute position.

In many (and perhaps all) languages, certain types of constituent are more constrained in their ordering possibilities than others. For example, in English the order of the elements subject, predicator and object is more rigid than that of most kinds of adverbial. Elements which are comparatively unrestricted in their placement are often described as **positionally mobile** (see, e.g., Robins 1980:150). Strictly speaking, however, mobility should be related explicitly to individual facets of positional syntax. Thus, mobility in respect of relative position implies permutability, mobility in terms of contiguity means separability, and mobility in respect of absolute position implies that the element concerned is not confined to a particular position in the superordinate structure, however constrained it may or may not be in relation to its placement with reference to its sister-elements.

2.2 FACTORS AFFECTING THE ORDER OF CONSTITUENTS

CO is influenced by a variety of factors. The purpose of the present section is to summarise the most important of these[4] and to classify them under a small number of fairly broad headings. The major distinction to be drawn is between **stylistic** and **non-stylistic** factors, these two broad categories then being divided into various sub-categories. The classification is probably not watertight, but it is preferable to an unstructured list of factors.

2.2.1 Non-stylistic factors

Certain types of factor that influence the order of constituents are not the subject of stylistic choice, and are naturally termed **non-stylistic** factors. The main sub-types are:

    (10) (a)   Purely syntactic
           (b)   Primarily syntactic
           (c)   Primarily semantic

An example of a **purely syntactic** factor is found in the convention whereby in English the determiner always precedes the noun it modifies.[5] Here there is no possibility of the reverse order (cf. (4a) above), so that the relative position of the two words is purely a matter of the linear-structural aspect of syntax.

    The second type of non-stylistic factor, the **primarily syntactic**, is exemplified in the rule for German whereby normally the finite verb occupies second position in declarative main clauses but final position in subordinate clauses. The basic determinant of the choice of position here is the syntactic consideration of whether or not the clause is grammatically dependent on another clause or phrase, rather than any directly semantic factor. Nevertheless, there is an indirect involvement of the semantics, in that subordinate clauses differ from main clauses at this level insofar as the latter, though not the former, generally have some particular semantic relationship with either the predicator of a superordinate clause or the head of a superordinate phrase. Thus, in (11) the subordinate clause has the semantic role of agent[6] in relation to the predicator of the main clause:

    (11)   Wer seine erste Sinfonie hörte, lobte ihn.
             who his first symphony heard praised him
             'Whoever heard his first symphony praised him.'

The main clause, however, has no such semantic role relationship to the predicator of any other clause.

    Often, however, the cognitive meaning of the sentence depends directly upon the choice of linear syntactic order. In such cases, we speak of a primarily semantic

factor being at work. Examples include the relative position of the two noun phrases in (12a) and (12b) or that of the subject and finite verb in (13a) and (13b):

(12) (a)   The driver frightened the passengers.
      (b)   The passengers frightened the driver.
(13) (a)   Will you go tomorrow?
      (b)   You will go tomorrow.

The cognitive meaning is similarly affected by the placement of the phrase *the surgeon* in (14a) and (14b),[7] though here the crucial factor is not the relative position but the contiguity of the apposed elements, since *his father* precedes *the surgeon* in both examples:

(14) (a)   His father, the surgeon, telephoned Mr Smith.
      (b)   His father telephoned Mr Smith, the surgeon.

2.2.2 Stylistic factors

The remaining factors that influence CO may be termed **stylistic**, in that the choices of ordering which they bring about do not affect the cognitive meaning of the sentence, but are, nevertheless, significant in the pragmatic process of communication. These stylistic factors can be subdivided into the **organisational**, which relate to the sequencing of the elements of the message when constructing a text, and the **aesthetic**, which have to do with the achievement of a pleasing effect from the point of view of the audience.
    The organisational factors concern:

(15) (a)   Topic-comment structure
      (b)   Distribution of information
      (c)   Emphasis
      (d)   Empathy
      (e)   Composition of constituents
      (f)   Cohesiveness
      (g)   Connectivity

There is a vast literature on these organisational factors and their effects on CO, going back at least as far as Weil (1887). Here we shall simply note the main points; for a fuller review, see Allerton (1978), Brown & Yule (1983:ch.5).
    A distinction is commonly drawn between **topic** and **comment** (Hockett 1958:191) or **theme** and **rheme** (Halliday 1967:212). The topic or theme represents what the sentence is about, and the comment or rheme is what is said about it. It is natural, therefore, for the former to precede the latter. For example, in (16a) the topic, *the man just mentioned*, precedes the comment, *spoke for an*

hour, and again in (16b) the topic, *someone*, precedes the comment, *coughed*.

(16) (a)   The man just mentioned spoke for an hour.
         (b)   Someone coughed.

A distinct, though related, dichotomy is that between what Halliday (1967:204) calls **given information** and **new information**, where the former, unlike the latter, is presented by the speaker as being recoverable from the preceding text. For example, *the man just mentioned* in (16a) represents given information, whereas the remainder of the sentence conveys new information, inasmuch as the reference of *someone* is not assumed to be identifiable from what has gone before. (16b) thus also illustrates the non-equivalence of the topic-comment distinction and the given-new dichotomy, since (16b) contains no given information but does have a topic (cf., for instance, Allerton 1978:157, Dik 1989b:267). The distribution of given and new information within a sentence is such that the former tends to precede the latter, as in the above examples. This is only a tendency, however, and the reverse order is quite possible, for example in (17), where the given item is placed at the end.

(17)   Someone jeered the man just mentioned.

The thematic organisation of the sentence has been much studied by linguists of the Prague School, who use Mathesius' (1929, 1975) term **Functional Sentence Perspective** (FSP) to refer to this area of syntax, which is intended to cover both topic-comment structure and the distribution of given-new information (without always distinguishing sharply between the two).[8,9] The central concept within the study of FSP is communicative dynamism (CD). This is a gradience on which the constituents of a sentence may be ranked in terms of their contribution to the development of the message, such that elements which represent given information and/or constitute the topic (or point of departure) of the sentence carry a low degree of CD, while those which convey new information bear a high degree of CD. Typically, a sentence may be analysed into its 'theme', 'transition' and 'rheme', these categories representing increasingly high ranks on the CD scale. The element bearing the lowest degree of CD in a particular sentence is its 'theme proper' and that carrying the highest degree is its 'rheme proper'; see, for example, Firbas (1959a:42). With regard to CO, elements tend to be sequenced in terms of increasing CD, especially in languages in which the order of elements is comparatively free.

    Not all linguists agree, however, that FSP constitutes a gradience. For example, Chafe (1976:33) argues that the evidence for its scalarity is unconvincing and that all that is needed is a binary distinction between given and new information. What does appear to be generally agreed, though, is that only a small number of discrete categories are required for the description of the relevant facts in respect

of particular languages.

As regards the recognition of thematic as opposed to non-thematic material in actual sentences, Sgall, Hajičová & Benešová (1973:ch.3) propose a 'question test'. At its simplest, this test operates in the following manner. Any statement can be regarded as an appropriate response to a particular set of questions. Given, then, an acceptable question-response pair, the elements in the response which must necessarily appear in the question are thematic. (Sgall, Hajičová & Benešová actually use the terms 'topic' and 'comment' rather than 'theme' and 'rheme', but this does not affect the point at issue.) To take an example, (18c) is a reasonable response to (18a) but not (18b).

> (18)   (a)   What has Christopher seen?
>   (b)   Who has seen an eclipse?
>   (c)   Christopher has seen an ECLIPSE.

(18a) and (18c) thus form an acceptable question-response pair. Now, since the elements *Christopher has seen* in (18c) must be included in (18a), these elements constitute the thematic part of (18c).

Attempts have been made to incorporate pragmatic concepts such as topic-comment structure and given/new information-distribution into generative grammar, though the terminology for the relevant concepts varies from author to author, with Chomsky (1972), Jackendoff (1972:ch.6) and other proponents of Transformational Generative Grammar (TGG) employing the terms 'presupposition' and 'focus'.[10] Linguists working within generative frameworks other than TGG have likewise made use of such pragmatic concepts; see, for instance, Dahl (1969, 1974b,c), Fawcett (1980), Hajičová & Sgall (1975), Sgall, Hajičová & Benešová (op. cit.) and Takami (1988). Within FG, in particular, there has been much discussion of the notions of 'topic' and 'focus'; see, for instance, Bolkestein et al. (1981), de Groot (1983), de Jong (1983), Dik (1978a, 1980a,1989b:ch.13), Dik et al. (1980), Hannay (1983, 1985a,b, 1990) and Mackenzie & Keizer (1990).

Topic-comment structure and given/new information-distribution have also been treated from the point of view of discourse; see, for instance, Clark & Haviland (1977), Davison (1984), Enkvist (1978,1985), Erteschick-Shir (1988), Hetzron (1975), Kurzon (1988), Prince (1978, 1981, 1984), Reinhart (1981), Sandulescu (1976), Sgall (1973, 1974, 1975a,b), Smyth, Prideaux & Hogan (1979), Sperber & Wilson (1986), Taglicht (1984), van Dijk (1977) and Werth (1979, 1984). These studies are, naturally, concerned with the organisation of coherent text in such a way as to facilitate effective interpersonal communication. This requires the speaker or writer to arrange the text in such a way that the audience can make the necessary connection between successive utterances, and this, of course, often results in the familiar given-new and topic-comment sequencing. In the case of narrative, there is also a tendency to describe events in the order in which they happened, and in some circumstances the sequencing of clauses is actually