

# MULTIPLE SYNTAGMATIC RELATIONS IN ENGLISH CLAUSE STRUCTURE

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This paper<sup>1</sup> deals with the problem of describing certain kinds of clause in English which until comparatively recently have received little searching consideration from linguists.<sup>2</sup> Any native speaker of English would agree that clauses such as

- (1) The man is able to go.
- (2) The man is easy to please.
- (3) The man is clumsy to fall.

while superficially similar, are in fact grammatically dissimilar. It is the two-fold task of the linguist (a) to devise formal tests which will enable him to discover the differences which exist intuitively for the native speaker, and (b) to devise appropriate structural descriptions embodying the significant relations revealed by his textual operations.

This paper falls into three sections. Section I outlines the theory and method of description which has been applied. Section II discusses some past and current solutions to the descriptive problem. Section III suggests how the two tasks outlined above can be fulfilled.

## I

A grammatical description of English consists of a set of descriptive categories which are related to each other and to English sentences in certain defined ways. "Clause", "group", "word", "subject", "predicator", etc. are all descriptive categories in English. The nature of these descriptive categories and their relations to each other are in turn specified in the general theory of grammar.

Four kinds of descriptive categories are needed to account for all the grammatical features of a particular natural language such as English. They are class, structure, unit and system. For the purposes of this paper I shall restrict myself to a brief and partial consideration of the categories of class, structure and unit.

Units are stretches of language that carry patterns. English needs five units in all to account for the kinds of pattern that are carried by different stretches. These are the units: sentence, clause, group, word and morpheme. The units are related rigorously to one another in fixed relations. The relations are fixed so that sentences consist of clauses, clauses of groups, and so on down to the smallest unit, the morpheme. This paper will be mainly concerned with the ranks of sentence, clause and group.

<sup>1</sup>This paper was first read at the Wellington Branch of the Linguistic Society of New Zealand, September, 1965. I am indebted for many of the ideas in this paper to M. A. K. Halliday and J. Sinclair whose lectures on Modern English Grammar I attended in 1961-62.

<sup>2</sup>Some well-known grammars contain little or no consideration of these clauses. See, for example, Francis 1958, Fries 1957, Long 1961, Sledd

Each unit is expounded by a set of different structures. A structure is a string of one or more elements. An element is a place in structure where one grouping of the items belonging to the rank next below operates. The structure of the English sentence, for example, can be expressed by means of the elements  $\alpha$  and  $\beta$ .  $\alpha$  is the place in structure where operates the independent class of the clause;  $\beta$  is the element at which operates the dependent class of the clause, that is clauses which do not usually occur alone as sentences. In

He'll be welcome if he comes.

"if he comes" is an exponent of a dependent clause, while "he'll be welcome" is an exponent of an independent clause. This formal item, therefore, is an exponent of the structure  $\alpha\beta$ . Primary classes are defined by reference to elements of structure. At each different element of a given structure operates a different class of the items of the rank next below. At the elements of the sentence, for example, as we have just seen, operate the classes of the clause.

Here is a brief sketch of the structures and classes of the sentence, clause and group which will be referred to in Section III.

Sentence:

elements of structure:  $\alpha, \beta$

Clause:

classes: independent (at  $\alpha$ )

dependent (at  $\beta$ )

elements of structure: Subject (S), Predicator (P),  
Complement (C), Adjunct (A)

The subject is the place in the clause at which operates the nominal group immediately preceding the Predicator.

S                      P

e.g. ||| John | went. |||<sup>3</sup>

The Predicator is the place at which the verbal group operates. The Complement is the place at which operates the nominal group which normally follows the Predicator. The Adjunct is the position at which the Adverbial Group operates.

A                      S                      P                      C                      A

e.g. ||| In the morning | John | took | his brother | to school. |||

Group:

Classes: Nominal (N.G.), Verbal (V.G.), Adverbial (A.G.).

The group structure that is chiefly relevant in this paper is that for the nominal group. This structure has elements Modifier (M), Head (H), Qualifier (Q), e.g.

M                      H                      Q

The man next door

The need for separate class and structure descriptions may not perhaps be immediately obvious. Both are needed because their roles are different. Structural descriptions are needed in order to account for syntagmatic or chain relations while class descriptions are needed to account for choice or paradigmatic relations. If we consider these clauses:

- (1) John painted the house green.  
 (2) John saw Peter this morning.  
 (3) John painted the house next door.

The description by group classes of these items consists of the sequence N.G. + V.G. + N.G. + N.G. Any native speaker of English will realize that there are structural differences in the above set of clauses which are not revealed in the class description. What this describes is the class of the items and the sequence of occurrence of the classes but it does not reveal anything about the relations of the classes to each other. That the relations of the classes to each other can be quite different is revealed by applying a permutation operation to the above sentences. They become:

The house was painted green by John.

Peter was seen by John this morning.

The house next door was painted by John.

The class description does not reveal that "next door" is dependent upon "the house" nor that "this morning" differs from "green" in its range of positions. This information about syntagmatic relations of classes, is conveyed in the grammar by means of the structural description. Thus each of (1), (2) and (3) is an exponent of a different structure, being SPCC, SPCA and SPC respectively. The difference in structure is therefore represented either as a difference in the number of elements or as a difference in the choice of elements.

In (3) occurs the grammatical feature which has been called rankshift by Halliday.<sup>4</sup> Rankshift is the occurrence of a unit in the structure of a unit which is of the same or lower rank. "The house next door" is a nominal group operating at Complement. Its own structure is

M     H     Q  
the house [ next door ]

However, "next door" can also participate directly in the structure of a clause as exponent of Adjunct, as in

A             P             A  
||| Next door | was | an old house. |||

Therefore, in "the house next door", since 'next door' is part of "the house next door" which is itself a group item, it is rankshifted.

Rankshift of one kind or another is a frequent phenomenon in English. It may involve a clause rankshifted within a clause: e.g.

S                     P                     C  
||| [[Hunting rabbits]] | used to be | fun. |||

<sup>3</sup>The following conventions are adopted in parsing grammatical items:

	= sentence boundary
	= clause boundary
{ }	= group boundary
[[ ]]	= rankshifted clause
{ }	= rankshifted group
( )	= group interpolated within a discontinuous group

<sup>4</sup>For rankshift, see Halliday 1961.

or a clause within a group: e.g.

M    H            Q  
the man [[ who came]]

In this section I have given a partial outline of a taxonomic grammar. Such a grammar consists of a number of different ranks. For each different rank there exists a set of classes and of structures with clearly defined relations between classes and structures. Taxonomic grammars account for syntagmatic relations by means of structure, paradigmatic relations by means of class. Each unambiguous grammatical item is described by being assigned to one of the set of structures for each rank, while each ambiguous grammatical item is described by being assigned to two or more of the set of structures for each rank at which it is ambiguous.

## II

Utterances such as:

- (1) "The man is able to go."
- (2) "The man is easy to please."
- (3) "The man is clumsy to fall".

are properly distinguishable at the ranks of clause and of sentence. They certainly cannot be distinguished at any rank lower than the clause since they are all instances of the same sequence of group classes:

N.G. + V.G. + N.G. + V.G.

The internal composition of the groups in each position is the same for each utterance. There is a difference in the syntagmatic relations of the groups which, in a taxonomic grammar, will be reflected in the choice of different structures at higher ranks. The number and choice of elements will have to be clarified.

Jespersen described the difference between utterances such as (1) and (2) in non-grammatical terms by appealing to contextual categories of logical subject and object. In a discussion of "the path is easy to find" which is analogous to "the man is easy to please" he states:

If we analyze this sentence logically, we see that it is not so much the path that is easy, as the finding of the path; if we transcribe: "It is easy to find the path", the subject in the first instance is "it", which is representative of the following infinitive + object "to find the path". Notionally, we may therefore say that in "the path is easy to find" "the path" is at once a subject and an object, but grammatically "the path" is treated as the sole subject and "to find" as an appendage to "easy".<sup>5</sup>

Because of his logico-grammatical dichotomy, Jepsersen is presumably able to distinguish the two sentences:

(1) He is able to go.

and

(2) He is easy to please.

only in notional terms "He" is the logical subject of "is" in (1), but in (2) it is not only logical subject to "is" but logical object to "to please".

<sup>5</sup>Jespersen 1928: 215

Little attention was focused on the descriptive problem posed by these utterances in the grammars of many American linguists. In part this is due to the limitations of their descriptive procedures. They tend arbitrarily to limit their textual operations to substitution within a frame. Such a procedure is useful only for establishing paradigmatic relations but it does not contribute to the explanation of syntagmatic relations.

The most interesting recent description of these utterances is to be found in the writings of the transformative-generative grammarians. Chomsky (1964), for example, explains that to achieve descriptive adequacy a grammar would have to show that in "John is easy to please", "John" is the direct object of "please" while in "John is able to please" "John" is "the logical subject" of "please". The differences in the syntagmatic relations of the groups are handled in the work of Chomsky and Lees chiefly by means of transformational rules.<sup>6</sup> Chomsky has indeed claimed that it is impossible to handle the descriptive problem in any other way:

In cases of this sort, the taxonomic model of generative grammar discussed above (or any of its variants) cannot achieve the level of descriptive adequacy, since information of this kind cannot be represented in the Phrase-Marker that it provides as the full structural description on the syntactic level. The transformational model does, however, make grammars available that can supply structural information of this sort, and therefore can, in this case at least, achieve the level of descriptive adequacy.<sup>7</sup>

It is not possible here to discuss at length the question of whether or not a non-transformative-generative grammar can give an adequate description of such utterances. Chomsky's claim is acceptable if, indeed, the characterization that he gives to phrase-structure grammars (Cf., *inter alia*, Chomsky 1964: 11) were an adequate characterization of all non-transformative taxonomic grammars. Chomsky has received strong support from Postal (Cf. Postal 1964) who has attempted to demonstrate that all taxonomic grammars, including Halliday's one outlined in Section I, are all adequately included within the framework of the phrase-structure characterization for taxonomic grammars. This reduction of Halliday's taxonomic grammar is accomplished only at the price of oversimplification, distortion and misinterpretation of some crucial features of Halliday's grammatical theory. Moreover, more trivially perhaps, Postal's attempt to belittle Halliday's theory as unformalized and perhaps unformalizable overlooks Dixon's previously published formalized version of Halliday's theory (Cf. Dixon 1963).

What is crucial in the strategy of Postal and Chomsky is the exclusion of certain linguistic aspects from the phrase-structure component of grammar and their inclusion via the transformational component. What are excluded from the phrase-structure component are important syntagmatic relations of language. The omission of these reduces the phrase-structure grammar to a classification device. The phrase-structure grammar turns out to be an impoverished version of a taxonomic grammar. In fact, any taxonomic grammar must incorporate information not merely about paradigmatic relations (the class identification of an item) but about syntagmatic relations (the structural identification of an item). The crucial role that structure plays in a taxonomic grammar has been underrated and even dismissed by Postal as superfluous. The truth of the matter seems to be that whereas a transformative-generative

<sup>6</sup> See Chomsky 1957, 1962 and 1964; Lees 1963, 1964.

<sup>7</sup> Chomsky 1964: 34

grammar shows syntagmatic relations between classes chiefly by transformation rules and by configuration, a taxonomic grammar shows them by structure.<sup>8</sup> Both structure and transformation rules are grammatical mechanisms (within different grammatical theories) for explicating or characterizing syntagmatic relations in language.

Since it is the function of structure to represent, in an abstract way, the syntagmatic relations of language, it is not sufficient to say, as I did earlier, that elements of structure are places in a unit where operate different classes of the unit below. The elements of the clause, for example, are not just places in the clause where group classes operate, they are terminal points in dyadic relations. For example, the utterance:

|||John | came.|||

which is a realization of the group-class sequence:

N.G. + V.G.

has a clause structure description, SP. In this structure S not only represents a place but it also represents a terminal in the subject-predicator relation, of "John" and "came". Likewise in

"John saw the man"

whose clause representation is SPC, "saw" is a terminal in two dyadic relations; it is a terminal in a subject-predicator relation and in a predicator-complement relation. The two different relations are indicated in this structure by the two different symbols S and C. The symbol P is neutral in respect to information about dyadic relations since the information about the dual relations of the element which it represents is incorporated in the symbols chosen to mark the places which are the other terminals of the relations. Each different dyadic relation need be distinctively indicated only at one of the two places which are its terminals.

Normally, then, a structure will represent syntagmatic relations by a sequence of unitary symbols some of which, such as S or C, indicate dyadic relations, others of which, such as P, carry neutral information. It is not the case, however, that where place in structure is a terminal in two dyadic relations that the position can always be represented by a single symbol. There are some clause structures in English which must have a double symbol for one of their elements otherwise information about important syntagmatic relations will not be incorporated in the structural description. In other words, there are cases where, like P, an element is a terminal in two different syntagmatic relations but where, unlike P, the element is not neutral with respect to information about the relations but its symbolic representation must indicate the existence of two different relations. Failure to incorporate information about such multiple syntagmatic relations in structural description leads directly to a vindication of Chomsky's claim that taxonomic grammars are incapable of revealing the differences in the kind of clauses illustrated at the beginning of this paper.

Elements of structure are either unitary or dual. A unitary element is a terminal in a singly dyadic relation; a dual element is a terminal in two dyadic relations. All elements, whether unitary or dual, are represented in structural description, by a symbol. All unitary elements are represented by a single symbol, e.g. the element Subject is represented by the symbol S. Dual elements are represented either by a single symbol (e.g. the element Predicator is represented by P) or by a double symbol (illustrated in Section III).

<sup>8</sup> For a similar view see Belasco 1964: 77.

## III

The first step in the description of such sentences as:

- (1) The man is able to come.
- (2) The man is easy to please.
- (3) The man is clumsy to fall.

is the suggestion of discovery procedures. Certain tests will have to be proposed in order to indicate what structural differences are present. The tests cannot be of the type which note the presence or absence of morphological features since in respect to morphology the sentences are the same. Nor does a test which examines the behaviour of the three sentences in substitution operations lead to any revealing differences. The most illuminating tests are those which examine the behaviour of the sentences under permutation operations. A permutation operation will change the order of occurrence of classes, at the same time deleting or adding certain items.

The second step in structural description is to interpret the results of the permutation test so as to give maximum representation in the structural description to the inter-group relations revealed by the tests. The tests therefore turn out to have a dual function. They not only disclose differences but they also suggest the nature of the differences. The incorporation of this information in structure, however, cannot be simply determined by the test, since it involves other considerations as well. Since the structure may consist of a string of one or more unitary elements or of a string of unitary and dual elements, its structural representation will consist of a sequence of single symbols or of single and double symbols. If

- (1) The man is able to go.
- (2) The man is easy to please.
- (3) The man is clumsy to fall.

are structurally different, it will be necessary to provide two different tests. It will be sufficient to propose one test to distinguish (1) and (2) from (3); and a second to distinguish (1) from (2).

Test 1: N.G. + V.G. + N.G.<sub>2</sub> + V.G.<sub>2</sub> →  
it + V.G. + N.G.<sub>2</sub> + of + N.G. + V.G.<sub>2</sub> <sup>9</sup>

Applying this test to (1), (2), and (3) we get

It is able of the man to go.

It is easy of the man to please.

- (4) It is clumsy of the man to fall.

Only the last of these transforms is acceptable to native speakers, thereby distinguishing (3) from (1) and (2). This test not only reveals that (3) is different from (1) and (2) but it also provides information about group relations in (3). In (4) "of the man" can be deleted, thus showing the independence of "the man" and "to fall" - there can be no SP relation between them. Likewise the occurrence of "of the man" between "clumsy" and "to fall" shows the independence of these groups. Finally, "to fall" is substitutable for "it" to give the transform:

<sup>9</sup> The symbols + and → are to be interpreted as "concatenated with" and "transformed to" respectively.

To fall is clumsy of the man.

Since this particular substitution is considered elsewhere in the grammar to be a crucial test for certain kinds of dependent clauses, the appropriate conclusion is that in

"The man is clumsy to fall."

"to fall" is to be treated not as a constituent of the clause but as the constituent of a sentence whose other component is "the man is clumsy". The correct analysis for this sentence would be

	α β	sentence structure
	S P C    P	clause structures

Test 2: N.G. + V.G. + N.G.<sub>2</sub> + V.G.<sub>2</sub> →  
V.G.<sub>2</sub> + N.G. + V.G. + N.G.<sub>2</sub>

The application of this test to (1), (2) and (3) gives the transforms:

To go the man is able.

To please the man is easy.

To fall the man is clumsy.

Thus only the transform of (2) is acceptable to a native speaker, serving to distinguish (2) from (1). The structural analysis of

S	P	C
P	C	
[[to please   the man]] is   easy.		

reveals that "the man" is a complement to "to please" as part of a rankshifted clause. This syntagmatic dependence of "the man" on "to please" is also present in the source sentence. Thus in "the man is easy to please", "the man" is in subject relation to "is" since it is the nominal group that immediately precedes the verbal group. Likewise it is complement to "to please". The fact that the complement precedes its predicator in no way debars it from being a complement since this sequence is already allowed for in certain kinds of thematic clause in English: e.g.

C	S	P	A	C	S	P
Mary   we   like,   but   John   we   dislike.						

"The man" is therefore a terminal in two dyadic relations both of which must be explicitly indicated in the symbol in this initial position in structure if they are to be structurally represented. It is necessary, therefore, to incorporate a double symbol, C/S, in the structural representation where S indicates that the class operating at this position is a terminal in a relation with the left-most verbal group, while the C indicates that it is also a terminal in a relation with the right-most verbal group. The structural analysis will therefore be

C/S	P	C	P
The man   is   easy   to please.			

To say that "the man" is both S and C is purely a grammatical



description. In particular it has nothing to do with logic. The categories of subject and complement can be fully explicated within grammar without resorting to logical notions. The discovery that "the man" is an exponent in both relations gives us a grammatical fact and not a logical fact. Indeed it is clear that since the notion of logical subject is dependent upon the notion of grammatical subject and not vice versa, to attempt to define the latter in terms of the former leads to circularity.

The provision of a unique structure for

"The man is easy to please."

makes it plain that the dual relation of "the man" is sui generis and in no way dependent upon the transform for its existence. It seems necessary to stress this since some linguists seem rather confused about the relation of a sentence to a transform. Lees, for example, writes: "There is no reasonable way to construe certain sentence types other than as permuted, elided, or embedded versions of source sentences".<sup>10</sup> It is odd to claim that the explanation of a sentence is that it is a version of another sentence. The explanation of a given sentence is to be found in the grammatical description assigned to that sentence. A sentence and its transform can be explained independently of each other.

Since "The man is able to go" had negative results in both tests, it might appear that they will not indicate the crucial syntagmatic relations. However the fact that it is not acceptable to say:

"It is able of the man to go."

is an indication of the close dependence of "to go" and "able". Their relation is probably similar to that of "ready" and "to serve" in

"It is ready to serve."<sup>11</sup>

In this sentence it is not possible to substitute "to serve" for "it" to give

"To serve is ready."

thereby directly revealing the dependence of "to serve" upon "ready". This dependence is recognized in structural description by means of nominal group structure. Thus the structural analysis of

It is ready [[to serve]]

if	S	P	C	Cl. Structure
			H	Q
				N.G. Structure

The syntagmatic likeness of "the man is able to go" can be indicated by giving it the same structural description, that is, S P C.

The consideration of these three sentences reveals therefore that it is possible in a taxonomic grammar to represent simply the difference between the above kinds of sentence by means of minimal differences in the number and choice of elements. This structural description is both economical in choice of symbol and non-redundant since it incorporates

<sup>10</sup> See Lees 1964: 142

<sup>11</sup> For a discussion of some of the problems connected with sentences like "It is ready to serve", see Lees 1963: 77 ff.

facts of grammatical relations which would not elsewhere be represented in the grammar.

The recognition of three different structures has paradigmatic consequences. There are three sub-classes of adjective distinguished according to their potentiality of occurrence at C in these different structures.<sup>12</sup>

- (1) Subclass occurring at H in S P C with marked infinitive as qualifier:

Like able, are accustomed, anxious, apt, ashamed, bound, delighted, eager, entitled, fit, free, glad, happy, inclined, keen, liable, likely, loath, pleased, qualified, ready, reluctant, slow, sorry, willing, etc.<sup>13</sup>

- (2) Subclass at H in ||S P C || P ||

Like clumsy, are ambitious, careful, mad, sweet, wise, wrong, etc.

- (3) Subclass at H in C/S P C P

Like easy, are deadly, delectable, delightful, excellent, horrible, impatient, pleasant, right, strange, sweet, useful, etc.

The tests used to differentiate the exponents of these different structures are not necessarily, of course, the only possible tests that might be used but they are ones that seem to provide results most consistent with the native speaker's grammatical intuitions. An independent validation of them is provided by their ability to provide a formal analogue for the intuition of grammatical ambiguity. Consider for example:

He was strange to watch.

By test (1) it becomes

It was strange of him to watch.

By test (2) it becomes

To watch him was strange.

Everytime both tests are applicable, ambiguity is present. "He was strange to watch" must be provided with two structural descriptions since it is ambiguous: C/S P C P and S P C || P. The fact that the tests can provide an explanation for empirical facts beyond those for which they were originally proposed provides them with an independent validation. Other examples of ambiguity are:

She is delightful to watch

He is excellent to choose.

She is sweet to remember

The recognition of multiple syntagmatic relations will also serve to help characterize the difference between the following set of sentences:

<sup>12</sup> The adjective is a class of the word defined by its potentiality of operation at position E (Epithet) in Nominal Group structure.

<sup>13</sup> Some of these adjectives usually require the infinitive qualifier e.g. "bound", "apt", "liable", "likely", etc.

(4) John chose the gift to send.

(5) John is the man to send.

(6) They chose John to go.

The syntagmatic differences between the three sentences are revealed if a passive transformation test is applied. (4) becomes

The gift to send was chosen by John.

This test will not provide acceptable transforms for (5) or (6). (5) can be differentiated from (6) by a permutation test:

N.G. + V.G. + N.G.<sub>2</sub> → N.G.<sub>2</sub> + V.G. + N.G.

The man to send is John.

but not

John to go chose they.

The significance of these operational tests is that they reveal the close dependence of the marked infinitive in (4) and (5) upon the preceding nominal group. These two sentences can therefore be described by means of the structure S P C. The description is however inadequate for (6) since it fails to reveal the close syntagmatic relations of "John" with both "chose" and with "to go". The relation between "John" and "to go" is comparable to that in "For John to go is wrong" which is analyzed as S<sub>p</sub>[[S P]] P C. It therefore seems plausible to give as an analysis of "they chose John to go", the structure S P S/C P where the uppermost letter indicates the terminal relation with the rightmost predicator and the lower one indicates the terminal with the leftmost predicator.

It is possible, of course, to have longer complex clauses of this type: e.g.,

He wanted Peter to help John do his homework. S P S/C P S/C P...

The verbal group after the dual element is not restricted to a marked infinitive as this last example shows. The possibilities include all the non-finite verb forms:<sup>14</sup>

(1) unmarked infinitive:

I saw him go

We let him do it.

(2) present participle:

We saw them going.

We caught them trying to get in.

(3) past participle:

They wanted him killed.

They wanted it kept.

<sup>14</sup>For illustrations of these possibilities see Nida 1960: 125 ff.

(4) marked infinitive:

They allowed him to choose.

They wanted him to stop.

Ambiguity is just as possible with these sentences as it was with the earlier types.

(6) "John saw the man waiting outside" may become either

The man waiting outside was seen by John,

or The man was seen, waiting outside.

The first transformation requires the structural description for (6) to be S P C with "waiting outside" a rankshifted clause, while the second transformation requires that the structural description be S P <sup>S</sup>/C P.

These multiple syntagmatic relations realized in structure as the dual elements <sup>S</sup>/C or C/<sup>S</sup> prove useful in description elsewhere. The difference, for example, between

(7) John is easy for us to please. and

(8) John is eager for us to please.

can be accounted for by the structures <sup>C</sup>/S P C P, and S P C respectively. "For us" is treated as an exponent of an element of group structure and not of the clause because of its close syntagmatic dependence upon "easy" as evident in the transforms:

It is easy for us to please John.

To please John is easy for us.

The significant structural differences between

(9) John is a person who is easy to please. and

(10) John is a person who is eager to please.

can likewise be handled in the same way. Their respective structures will be

(11) John is a person[[who is easy to please]]

(12) John is a person [[who is eager ||to please]]

It is perhaps sufficient to suggest the analogy of

He is easy to please.

and

He is eager to please.

by way of justification for this analysis without suggesting any specific permutation test or tests to yield the difference.

The kind of multiple syntagmatic relations I have been dealing with are relations of group classes described through clause structures. There are other kinds of dual syntagmatic relations which cut across the rank-scale since the class of the group involved enters into syntagmatic relation both at clause and group ranks simultaneously. Strictly speak-

ing the analysis of these relations lies outside the scope of this paper but since the phenomena are partially similar to the ones I have been describing and since they do concern the clause I will deal with them as well.

Consider the two clauses:

(13) This room is easy to clean.

(14) This room is easy to work in.

The first clause is the complex type whose structure can be described as S/C P C P. This structural description is appropriate because each of the group classes represented in the clause is operating directly in the structure of the clause. Each of "this room", "is", "easy" and "to clean" is operating at a place in clause structure. By virtue of this there is no obstacle in regarding the double symbol for the element at which "the room" is operating as symbolizing the dual relations which "the room" is entering into with other groups. It is for this reason, of course, that one has to regard "to clean" not as a rankshifted verbal group like "to do" in "the thing to do", which is operating in the structure of a group at position Q, but as a group which operates directly in the structure of a clause.

The analysis of

This room is easy to work in.

is different. It is possible to show that "This room" has dual syntagmatic relations: it is both subject to "is" and also part of the prepositional phrase "in the room" as the following transform reveals:

It is easy to work in this room.

However, it is not possible to handle these syntagmatic relations by having a dual symbol to represent them in clause structure. The reason is the one that I gave before: as a group in subject relation with "is", "this room" is operating in the structure of the clause; as a group which is rankshifted within a discontinuous prepositional phrase - "this room ... in", - "this room" is operating in the structure of a group.

There is thus no problem in representing the group relations of "this room". At clause rank it is simply represented by S. But one can't legitimately use some such symbol as A to have a dual symbol S/A since this would conflate relations which occur at different ranks in the grammar. There is, however, a problem in representing in structural terms the relation of "this room" to "in" within a discontinuous prepositional phrase. The usual way to represent discontinuity of exponents of an element can be illustrated in this example:

|||The man | was (certainly) trying.|||

Here the exponent of Adjunct ("certainly") is interpolated within the discontinuous exponent of a predicator ("was...trying"). The discontinuity can be indicated in clause structure like this:

S P A

where the curved arrow indicates that the exponent of A occurs somewhere within the exponent of P. This solution will not apply to our clause

This room is easy to work in

unless in some such fashion as:

(S P C P) A

However, the representation of this second relation of "This room" does not seem crucial in description: it seems convenient to just present the structure as S P C P A.

A similar problem of representation occurs with clauses such as

(15) The man was taken care of by them.

(16) This must be paid attention to by us.

which are obviously related to the transforms:

They took care of the man.

and We must pay attention to this.

But though "the man" and "this" are presupposed by "of" and "to" as part of the exponents of prepositional phrase, this is also not an instance of a dual element in clause structure.

The solutions to the descriptive problems dealt with in this paper do not differ greatly from those found in some older grammars. There are, of course, differences in the methods by which they were solved and in the form in which they were presented. Recently much more has been learnt about the kind of criteria which are relevant in making grammatical descriptions. Operations such as substitution, deletion, and permutation are applied to a text to enable the linguist to discover the likenesses and differences in language form. There is no appeal to meaning as a criterion for establishing categories though meaning is always presupposed. The formal discoveries are described by means of abstract categories of class, system, structure and unit. Finally the use of symbols as a shorthand representation of categories enables the linguist to detect inconsistencies and ad hoc solutions, thus reducing undesirable descriptive features often masked in the past by the use of anecdotal methods of presentation.

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