

relevant meaning than words do.⁷ In contrast, Huddleston picks up a number of points in his criticism from below, which means that there is no sense of the overall grammatical picture they fit into. His discussion of the adverbial group and the verbal group are cases in point, to which we will return below.

From very early on in the development of systemic theory (e.g. Halliday 1961), Halliday has emphasized the importance of 'shunting'. Thus categories in IFG are intended to be responsible both upwards and downwards -- both in terms of stratification and rank. It is possible to try to characterize categories such as Subject only in terms of recognition criteria from below (case, agreement, and so on) as Huddleston does on p. 169, but such characterizations are one-sided and skewed; they fail to relate the categories upwards and thus also fail to explain anything about them. Once we have recognized the responsibility of a category such as Subject towards all aspects of its environment in the system, we can begin to reason meaningfully about syndromes of features that combine to form prototypical Subjects. For instance, if the Subject does not assign modal responsibility (its interpersonal contribution to the clause) to a participant in the transitivity structure of a clause, we can expect that it will be lacking in certain other properties associated with Subjects. This happens in English in existential clauses with *there* as Subject and meteorological clauses with *it* as Subject; and 'Subjects' in English and Tagalog have to be differentiated along just these lines (cf. Schachter, 1976, 1977; Martin, 1983). Huddleston (1984: 68 ff) points out that existential Subjects are not prototypical⁸ but the important question is what the explanation is. To get at the explanation, we need to look to the semantico-functional characterization of Subject.

(iii) **Simultaneous perspectives on grammar.** Traditional approaches to the study of grammar are parsimonious rather than extravagant. Formal grammar, in particular, has tended to emphasize one particular line of interpretation at each level of description. As far as grammar is concerned, this has led to astringent models which export descriptive responsibility for semantic and pragmatic phenomena to other levels. In contrast, Halliday's approach is an **importing** one: 'semantic' and 'pragmatic' considerations integrated into the grammatical description as far as possible, interpreted as the three **metafunctional** components of his grammatical description. It is this metafunctional perspective which gives rise to simultaneous ideational (more delicately logical and experiential), interpersonal, and textual layers of structure. The grammatical description is polyphonic (Halliday, 1978) -- that is to say, tiered, not unlike the multi-tiered representations provided by Autosegmental Phonology (e.g., Goldsmith, 1979).

All of this elicits objections from Huddleston. But beyond this Halliday introduces the idea of **grammatical metaphor** (IFG Chapter 10; Halliday, 1988), which in effect introduces the possibility of double or even multiple grammatical codings of a single clause. Consider for example the following proportionality:

- (1) He argued that they shouldn't go and so they didn't
- (2) His argument that they not go prevented their departure

Halliday suggests that the first of these can be adequately described as 'processed' once by the grammar: it is a clause complex with the structure $1\alpha\ 1\beta\ 2$, with one projecting verbal clause followed by two material ones. For the second clause, however, Halliday would suggest at least two layers of grammatical interpretation. The 'literal' reading is as a circumstantial identifying clause with a nominalized Token (*His argument that they not go*) and a nominalized Value (*their departure*); the 'figurative' or 'transferred' reading is as for the analysis of the first example above. Halliday refers to multiple grammatical codings of this kind as grammatical metaphors. Alongside metafunctional layering, this perspective dramatically increases the descriptive power of his grammatical theory. The concept of grammatical metaphor is critically related to a number of Huddleston's objections and will be taken up where relevant below. Now, let's turn to the question of how to interpret and evaluate analytical problems and apparent counter-examples.

4. The nature of 'problems' and 'counter-examples'

Huddleston seems to tend to assume that an analytical problem is necessarily negative: this is the basis of his argument against a rank-based grammar in his Section II:2. However, whenever there is a problem, it is just as important to ask whether it is in fact desirable and informative. The framework we use should be such that it brings out problems of interpretation; it shouldn't neutralize them. For instance, a multi-functional interpretation of the clause in English will bring out problems of analysis such as incongruent constituent structures from the three metafunctions. A uni-functional analysis would not bring out these problems (nor would an analysis based solely on grammatical classes); but if one is interested in explaining how grammar works instead of simply describing it, then this failure to bring them out is a short-coming rather than a benefit. Conflicting constituent structures show where there is tension in the system -- where the metafunctions pull in different directions, as it were. For instance, the textual Theme ^ Rheme organization of the clause and the interpersonal Mood ^ Residue organization may coincide but they may also draw major boundaries at different places in the clause and this helps us account for the possible placement of certain adjuncts, either between Theme and Rheme or between Mood and Residue (IFG, p. 83).

How do we identify problems for the framework? Again and again, Huddleston argues from single (de-contextualized) **counter-examples**. This was, of course, a common strategy in generative work in the 1960s and supported the rapid development of ideas within a Chomskyan paradigm. But it should be abundantly clear by now that just displaying counter-examples is of very questionable value (as has indeed been pointed out by Chomsky). Surely the idea that they can be used to prove a theory 'wrong' went out of fashion in the 1960s (cf. Kuhn, 1962). If we deal with highly developed interpretations of grammar such as the one presented in IFG, alleged counter-examples have to be evaluated and interpreted very carefully. For instance, Halliday makes a very powerful generalization in IFG to the effect that facts cannot function as participants in material clauses in English whereas they can participate as phenomena in mental ones. Huddleston dismisses this generalization as follows: "there is nothing ungrammatical about such material process clauses as *the fact that it had been shown to be a forgery ruined his argument*". He doesn't stop to ask how examples of this type are to be interpreted. For instance, what type of material processes are involved? (Note that what is ruined is a verbal construct, *his argument*, represented by means of a nominalization -- Huddleston's example involves grammatical metaphor.) Is the interpretation of *the fact that ...* in the example above comparable to *the fact that it had been shown to be a forgery worried him*? Consider these mental clauses:

- (3) that it had been shown to be a forgery worried him
- (4) it worried him that it had been shown to be a forgery

- (5) that the painting was genuine pleased her
- (6) it pleased her that the painting was genuine

- (7) that the painting was a forgery didn't occur to her
- (8) it didn't occur to her that the painting was a forgery

and contrast the following material examples:

- (9) that it had been shown to be a forgery ruined his argument
- (10) ?? it ruined his argument that it had been shown to be a forgery

- (11) ? that the experiment had failed destroyed her life
- (12) * it destroyed her life that the experiment had failed

Note that it is because the grammatical metaphor in the first pair is based in part on a verbal process that the grammaticality difference between the two arises; it is obviously more natural for an embedded metaphephenon to destroy a nominalized one than to destroy a

macrophenomenon. We will return to this particular counter-example later in the context of Huddleston's discussion. The general point is that the treatment of an example as a counter-example is an act of interpretation.

5. The nature of Huddleston's argument

We have noted that Huddleston does not evaluate IFG in its own terms; for instance, he does not pick up on its text-based nature. Whether one agrees or disagrees with this approach, there are aspects of his style of argument that are highly questionable. For instance, in an attempt to reject a criterion Halliday puts forward for distinguishing between material and mental processes, Huddleston simply writes "Point (iv) has to do with the structure of the lexicon" and leaves it at that. But surely unsupported and unelaborated claims of this kind scarcely constitute an argument for rejecting a criterion. We will return to this example and others like it. Here the facts are at least reasonably accessible to readers of the review who have not read IFG. But there are a number of occasions where Huddleston's arguments simply *misrepresent* what Halliday says and it is obviously impossible for anybody who has not read IFG carefully to spot the problem; this is hardly fair. For instance, on a number of occasions when Halliday discusses a certain type of example indicating how it relates to his account of the grammar, Huddleston cites a similar example as a counter-example to Halliday's account without referring to or mentioning Halliday's discussion of that type of example. Anybody who has not read IFG will naturally assume that Huddleston is playing fair and will conclude that Halliday has overlooked the issue. Again, we will identify a number of examples in our discussion (e.g., Halliday's clause *it really likes me*, where the Senser is *it*, something cited as a problem by Huddleston without reference to Halliday's example).

Huddleston also engages in an unfortunate practice of glossing what Halliday says and then arguing about his own glosses rather than Halliday's original interpretation. For instance, this happens to Theme, which Huddleston glosses as 'topic', and to the modal responsibility of Subject, which Huddleston glosses as 'agentivity'. This is a **slippage** in the first case from the general category (Theme) to a subtype (topical Theme) and in the second from one metafunction (interpersonal: responsibility) to another (ideational: agentivity). In this context, it is absolutely essential to recall Halliday's observation (p. xxxiii) that "a label is no more than the name of a proportional relation, or of a term in such a relation, or of some means whereby a proportional relation is expressed" and he warns us against the danger of reifying the labels and arguing from them rather than the proportionalities themselves (we will return below to the problem of Huddleston's failure to discuss labels in terms of the grammatical proportionalities they express and a number of the questionable proportionalities his alternative analyses imply). For instance, to get at the meaning of Theme in English, we should not perform lexical analysis on partial glosses such as 'topic' or 'what the clauses is about' but look at the use of the Theme / Rheme proportionality in discourse. But Huddleston tends to argue from his own glosses of Halliday's categories.

Even if Huddleston disagrees fundamentally with IFG, it seems to us that his comments are often unproductively negative. For instance, consider Huddleston's comments on IFG's coverage:

Halliday's *Introduction to Functional Grammar* is the most comprehensive account of English that has yet appeared within the framework of his theory of grammar. It is nevertheless quite selective and uneven in its coverage, for example ...

(In fact, Halliday's coverage is limited in a functionally principled way; he does not pursue the analysis beyond group/phrase rank.) This assessment can be contrasted with Hudson's (1986: 794) quite positive comments:

The coverage [of IFG] is unusual -- [Halliday] tends to continue his analyses at the points where other linguists give up in despair, such as intonation, topicalization, adverbials, and the fuzzy area where sentence structure fades into discourse structure. ... IFG is a challenging book -- it

challenges those of us who are outsiders to see if we can produce anything as impressive in its scope and internal consistency.

It can also be contrasted with Huddleston's comments on the coverage of his own book on English syntax (Huddleston, 1984), which aims "to give a reasonably careful and precise account of major areas of English grammar".

We will now turn to a discussion of Huddleston's review, section by section.

II. Huddleston's review

Huddleston's discussion is divided into four sections: an introduction (Section 1), a discussion of rank and various related issues (Section 2), a section on interpersonal and textual functions (Section 3), and a section on grammaticalization (with two main topics, ideational functions and the verbal group; Section 4).

1. Introduction

Huddleston observes in his introduction that "we find a massive difference in the aspects of English that interest Halliday and those that occupy scholars working within, say, a Chomskyan framework." It is important to note what lies behind the difference (Huddleston doesn't, except to suggest that it is a matter of personal interest). The point is that the aspects discussed in IFG are **text-driven**: the priorities are set by the need to attempt a global understanding of how a grammar works in relation to natural text. In contrast, the aspects given most attention in the current Chomskyan framework are **theory-driven**: they are selected because of their yield in terms of the theory and there is no reason to attempt a more global coverage.

Huddleston (p. 138-9) goes on to note concerning **Wh-elements** that scholars working within the Chomskyan framework have

devoted enormous attention to the range of possible 'underlying' positions that allow interrogative phrases (so that *what does she think that he used?* is allowable while **what is she furious because he used?* is not, and so on), whereas all Halliday has to say on the issue is 'The WH-element is always conflated with one or another of the three functions Subject, Complement or Adjunct' (83). Admittedly the problem of preventing the generation of deviant strings does not arise directly when the attention is on textual analysis, but Halliday does not consider the analysis of any example such as the above, where the WH-element is contained within a clause that is embedded in or hypotactically dependent on the interrogative clause itself – a significant omission given that such structures present problems for the hypotaxis analysis ...

There will obviously be many significant omissions in a book that Halliday (IFG, p. x) would have liked to have called a *Short Introduction*.⁹ We're not sure this is one of them -- examples such as *what does she think that he used?* are actually not very common in natural text (such as the London-Lund corpus). In any case, it is important not to assume that simply because a particular topic isn't included in IFG it could not be: it is curious to say the least to compare IFG with the whole of the Chomskyan literature, as Huddleston seems to do. In fact, what Halliday presents in IFG is highly relevant to examples such as *what does she think that he used?* and the issue is not just how they are to be specified syntactically but how they are to be explained. Although Halliday does not discuss such examples, his distinction between projection and expansion, his differentiation between hypotaxis and rankshift, and his category of interpersonal metaphors of modality are the foundation of an interpretation of such examples. Huddleston's class of problematic examples, those with extended Wh and/or Theme selection such as *what does she think he used*, are limited to projecting hypotaxis and are interpretable as interpersonal grammatical metaphors. Parataxis, rankshift (embedding); expansion; and

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projecting hypotaxis not interpretable as interpersonal grammatical metaphors are excluded -- see Table 1.

		projection	expansion
parataxis		What did she say: "he used ___"	What did she turn and she dropped ___
hypotaxis	as inter- personal metaphor	What did she say he used ___ ?	What did she turn before she dropped ___
	---	What did she frown he used ___ ?	
rankshift (embedding)		What did he regret the fact that he had eaten ___	What did he buy (the toy that was made of ___

Table 1: Wh selections from projected β clauses

Let's consider these distinctions briefly.

(i) **Projection vs. expansion.** First of all, Halliday draws a fundamental distinction between projection and expansion (IFG Ch. 7) and this helps us see the difference between Huddleston's two examples and other related ones. The general principle is that we find wh-selections beyond the simple clause with projection but not with expansion :

projection:

- (13) what does she think that he used ___ ?
- (14) what does she say that he used ___ ?
- (15) what do you suppose he used ___ ?
- (16) what do you wish you had used ___ ?

expansion:

- (17) *what is she furious because he used ___ ?
- (18) *what is she furious when he uses ___ ?
- (19) *what is she furious, which he is surprised at ___ ?
- (20) *what is she furious, besides being sad because of ___ ?

(There are examples interpretable as cases of hypotactic expansion where the Wh is selected from the dependent, expanding clause; but the expanding clause is non-finite, as in the following examples taken from Haiman & Thompson (1984: 517) -- *what did you walk along singing ___?* *what did you stop playing tennis to look at ___?* *what did she run out of the room hollering ___?*)

(ii) **Hypotaxis vs. rankshift.** Not all projected clauses can serve as the source of the candidate conflating with Wh or Theme; only those that are hypotactically related can. Halliday draws a distinction between hypotaxis and rankshift. We find the extended Wh-selection with

hypotaxis (from the dependent clause) but not with rankshift. We can thus narrow down the category of the extended domain of Wh-selection to hypotactically related projections:

hypotaxis:

- (21) what did she wish that she had done __ ?
 (22) what did she believe that he had done __ ?

rankshift:

(rankshifted projections, i.e. facts)

- (23) *what did she regret the fact that she had done __ ?
 (24) *what did she believe the claim that he had done __ ?

(rankshifted expansions:)

- (25) *what did she meet a man who had done __ ?
 (26) *what does [doing __] tire you?

(Note that the hypotactic relation of projection can be repeated, reflected structurally in interdependency chains — $\alpha \rightarrow \beta \rightarrow \gamma \rightarrow \delta$ etc.. These chains define the scope of WH-selection; for example: α : *what did Henry think* β : *Mary believed* γ : *that Anne had said* δ : *that Elizabeth had done* __ ?)

(iii) Type of projection: projections interpretable as metaphors vs. congruent ones. Not all hypotactic projections are open to Wh- and Theme-selections from the projected clause and we can narrow the class down by reference to Halliday's notion of interpersonal metaphor. Halliday discusses interpersonal metaphors of modality (IFG, Ch. 10). They include cases of hypotactic projection where the modality is represented as a projecting clause such as *I think*. For instance, *he'll probably fix the car* is related to *I think he'll fix the car*. This helps us see one principle behind the extended domain of Wh-selection with hypotactic projection: the projecting clause is interpretable as a kind of modality serving as an Adjunct in the clause from which the Wh-candidate is selected. Thus while *what do you think he'll fix* __ ? involves two clauses in the congruent reading it only involves one in the metaphorical reading: *what will he probably ['you think'] fix* __ ?

The key thus lies in Halliday's notion of the projecting clause as a metaphor: when the projection (*she thinks*) is coded as a phrase such as *in her view* inside what was the projected clause above (*she thinks he used X*), the element conflated with the Wh is a ranking constituent of the interrogative clause:

- (27) what in her view did he use __ ?

Similarly with the marked Theme *this* in the example *This I think Oscar feels also* (taken from R. Quirk & J. Svartvik's Corpus of English Conversation), where *I think* is a metaphorical expression of 'probably'. There are thus two analyses, one where *I think* is a projecting clause in a clause complex and one where it is a modal adjunct in the clause *this Oscar feels also* (The mood tag operates according to the second analysis; it is *doesn't he* rather than *don't I*: *This I think Oscar feels also doesn't he*); see Figure 2.

This I think Oscar feels also
'probably'

Theme				
Phenomenon		Senser	Process	
Complement	Modality	Subject	Finite	

Fig. 2: Metaphorical interpretation of *I think* as Modality

But note what the nature of the Wh-element is in non-projecting alternatives like the one above: it is "one or another of the three functions Subject, Complement or Adjunct" (IFG, p. 83). (In the example above, it is Complement / Phenomenon.)

Mental clauses of cognition such as *I think, I suppose, I believe, I imagine, I assume, I guess, I reckon* can serve as metaphorical representations of modality; but we find interpersonal metaphors of a similar kind outside of the domain of modality. For instance, verbal clauses such as *I say, I suggest, I report* can serve to represent the 'angle' that would otherwise be expressed by means of an Adjunct as in *Who according to you has access to the office?* That is:

- (28) who did you say has access to the office
- (29) who according to you has access to the office
- (30) who do you think has access to the office
- (31) who in your opinion has access to the office

These are arguably more clause-like than *I think* &c. in other respects; for instance, the projecting clause is picked up in the tag: *I say he has access to the office don't I?* vs. *I think he has access to the office doesn't he?*

With the help of the category of interpersonal metaphors of modality, we can now also see why examples involving interrogative (rather than declarative) projection (*what did he ask whether he would fix?*) and behavioural (rather than verbal or mental) projection (*what did he frown that he would fix?*) are odd. The problem with these examples lies with the nature of the projecting clause (*he frown, he ask*). Agnation¹⁰ pairs like *he'll probably fix the car : I think he'll fix the car* are only possible when the projecting clause can be interpreted as a modality, attribution, or other interpersonal assessment, which happens when the projecting process is verbal or mental: cognitive. However, when the projecting clause cannot be interpreted along these lines there is no agnate clause such as *he'll probably fix the car* where the projecting clause corresponds to a modal adjunct; consequently, behavioural and interrogative verbal projections are not possible with the pattern discussed here.

(a) Behavioural processes pressed into projecting service (*mumble, grin, frown, wince, etc.*) occur with parataxis, i.e. projecting quotes. They are marginal in any case with hypotaxis, i.e. projecting reports. Thus while we might find *she sighed that she had burnt the steak, she frowned that she had burnt the steak* is probably not acceptable. Behavioural processes cannot stand as metaphors for modality, attribution, etc. so they are not possible with Wh- and other Theme-selections from the projected clause. We can contrast the following two sets:

projection (verbal / mental):

- (32) what did she say that she would do __ ?
 (33) what did she say that she had eaten __ ?

projection (behavioural):

- (34) *what did she sigh that she would do __ ?
 (35) *what did he smile that he had eaten __ ?

(b) Similarly, the metaphorical interpretation is possible for indirect statements (i.e., reported statements) but not for indirect questions. Again, this is reflected in the possibilities of selecting the Wh-element from the projected clause:¹¹

projection: statement

- (36) what did she say he had done __ ?

projection: question

- (37) *what did she ask whether he had done __ ?

These are the broad outlines of the picture -- obviously, much more can be said. What is significant here is that the categories Halliday presents in IFG are highly relevant to an understanding of examples such as *what does she think he used?* It would take too long to pursue the issue further here (see Matthiessen, 1988); we'll come back to it in another context. The important point in the present context is that the IFG *text* is limited in space, but the *system* behind it is not and by working with the categories presented in IFG we can address many issues that are not included in IFG. Furthermore, far from creating problems for hypotaxis analysis, we have seen that hypotaxis analysis gives us an essential insight into the nature of examples such as *what does she think he used?*

We will make just one more observation before leaving Huddleston's introductory section. It is interesting to note that the examples of what Huddleston considers that IFG has to offer are for him "points of detail": the relations between time and space (pp. 138-9), participles as Epithets or Classifiers (pp. 164-5), phrasal verbs (p. 185), *but* (pp. 208, 213), the contrast between *who said that?* and *who said so?* (p. 234), *do* vs. *do so* (p. 299), the difference between ellipsis and *so* substitution (p. 302) -- details that can safely be consumed without in any way challenging traditional conceptions of grammar. But it is important to make it very clear that it is precisely because of Halliday's general interpretation of grammar that it is possible to generate and make sense of points of detail of the kind Huddleston identifies, which general interpretation Huddleston goes on to reject in the remainder of his article. Furthermore, an abundance of similar observations can be generated from Halliday's interpretation.

2. Rank

Huddleston's Section 2 is devoted to a criticism of Halliday's notion of rank, which was introduced into the theory in Halliday (1961). Since then, the power of rank-based organization has been demonstrated both within grammar (e.g., Hudson, 1967) and outside of grammar¹² -- phonology (e.g. Halliday, 1967; Johnston 1988), discourse (e.g. Sinclair and Coulthard, 1975), and action (e.g. Steiner, 1985). The theory of grammar has also been developed in such a way that additional benefits of a rank-based theory of grammar have come into focus.

When we base a grammar on rank, this is reflected in a number of different ways. One central aspect is the nature of constituency: **rank-based constituency** is different from immediate constituency (IC) analysis. The former is associated with minimal functional bracketing, while the latter works with maximal bracketing in terms of grammatical classes. It would take too long

to discuss these differences in detail here but some contrasting examples are given in Table 2 (the formal¹³ analyses are adapted from Radford, 1981).

Huddleston seems to prefer IC-analysis; he suggests that "the shortcomings of rank-based constituency are, indeed, more apparent in the current functional grammar than in the original scale-and-category model". We will deal with the alleged shortcomings below simply noting first that the benefits of rank-based constituency are more apparent in the current functional grammar. We will mention just three points.

(i) **Rank and the nature of grammatical structure.** The different modes of syntagmatic organization in the current functional framework serve to bring out the value of a rank-based grammar. It would take a long time to discuss and illustrate this point in detail so we'll just summarize the treatments in IFG abstractly. Clauses have multi-functional layered constituency structure (IFG, Chapters 2-5) -- experiential (transitivity structure), interpersonal (mood structure), and textual (theme structure). In contrast, the structures of groups originate within one metafunction (IFG, Chapter 6) -- the ideational one; but they draw on two different modes of organization within that metafunction, constituency and interdependency. Thus we have the situation shown in Table 3.

The rank-based interpretation of the grammar enables us to begin to explain these principles of organization. The highest unit on the rank scale, the clause, has evolved structurally to reflect and accommodate higher-level meanings across the functional spectrum -- including discourse semantic meanings. Groups are like clauses in that they have multivariate constituency structures;¹⁴ but at the same time they are interpretable as word complexes (up to a point) and this is reflected in their logical interdependency structure. Their intermediate status on the rank scale is symbolized by the reconciliation of these two modes of expression -- constituency from the clause and interdependency from word complexes. Phrases are unlike groups in that they don't have a logical interdependency structure; they are more like a pure (experiential) 'replay' of clauses at a lower rank and this is quite significant, as we will see later on (Section II:2.5).

Immediate constituency & maximal class bracketing	Rank-based constituency & minimal functional bracketing
<p>A tree diagram for the sentence "What will he do". The root node is \bar{S}, which branches into COMP and S. COMP branches into NP (PRO) and COMP (+WH). S branches into AUX (will), NP (PRO), and VP (V). The terminal nodes are "What", "e", "will", "he", and "do".</p>	<p>A tree diagram for the sentence "What will he do" showing rank-based constituency. The root node is [clause], which branches into four functional categories: Theme/Wh/Comp. [nom. gp.: wh-], Finite [v. gp.], Subject [nom. gp.], and Predicator [v. gp.]. The terminal nodes are "What", "will", "he", and "do".</p>
<p>A tree diagram for the noun phrase "the claim that you made". The root node is \bar{N}, which branches into DET (the) and \bar{N}. This \bar{N} branches into \bar{N} (claim) and S (that you made). The S node is represented by a triangle.</p>	<p>A tree diagram for the noun phrase "the claim that you made" showing rank-based constituency. The root node is [nominal group], which branches into three functional categories: Deictic [determ.], Thing [noun], and Qualifier [clause: relative]. The terminal nodes are "the", "claim", and "that you made".</p>
<p>A tree diagram for the prepositional phrase "out of which tunnel". The root node is PP, which branches into P (out) and PP. This second PP branches into P (of) and NP (which tunnel). The NP node is represented by a triangle.</p>	<p>A tree diagram for the prepositional phrase "out of which tunnel" showing rank-based constituency. The root node is [prepositional phrase], which branches into two functional categories: Minorprocess [prep. group] and Minirange [nom. group]. The terminal nodes are "out", "of", and "which tunnel".</p>

Table 2: Examples of minimal vs. maximal bracketing analysis

	multivariate constituency	univariate interdependency
clause	{ experiential : transitivity interpersonal : mood textual : theme	
group	(basically) experiential: modification by category	logical: generalized modification
word	[(basically) experiential: inflectional structure]	logical: derivational str.

Table 3: Structure type and rank

(ii) **The difference between ranking and rankshifted clauses.** The development of the interpersonal and textual interpretations of the clause in the functional grammar helps us understand the difference between ranking and rankshifted clauses. (1) The down-ranked status of a rankshifted clause is marked structurally in some way and the structural marking is thematic as structural theme (as in a defining relative clause). (2) Furthermore, a rankshifted clause is always invariable in mood and its thematic potential is much more limited than that of a ranking clause. (3) Most importantly from a functional point of view, a rankshifted clause is not accessible to discourse argumentation. For instance, *did he* can only challenge the independent ranking clause in the following example, not the rankshifted one:

- (38) A: Sue met again with the woman who came to dinner last night.
B: Did she?

(Cf. the questionable nature of the following exchange:

- (39) A: Sue met again with the man who came to dinner last night.
B: Did he?)

In this respect, rankshifted clauses differ from hypotactically dependent ones; the following challenge to the *although* clause is quite plausible:

- (40) A: Sue met again with her husband although he had behaved like a perfect fool the previous day.
B: Had he?

(iii) **Ranking elements of structure.** The identification of the textual metafunction allows us to reason about what can be thematized. The basic principle is that themes are selected from the functionally labelled elements of one clause. Note that a rank-based grammar makes it very clear what this means -- ranking elements include from an ideational point of view participants, circumstances, and the process but not their subparts since these are elements of the units at the rank next below, not of the clause; they are thus simply inaccessible at the rank of clause. Transformational grammarians spent a lot of time trying to develop constraints that reflect this basic principle, since an IC-based grammar will allow us to thematize most anything: for instance, since it isn't possible to thematize part of a complex (coordinate) group realizing an element of clause structure, it is necessary to formulate a constraint that will prevent a

transformation from picking only one part of a complex group. Huddleston doesn't comment on this issue in relation to the comparison of IC-based and rank-based grammars, but it is important to recognize its fundamental character.

Now, it is possible under certain specific conditions to thematize an element that is 'outside' a clause either in terms of projection (in a hypotactic clause complex) or in terms of rank. But these conditions serve to bring out the tremendous power of Halliday's rank-based interpretation of grammar rather than undermine it. They are all concerned with potential ambivalences in the grammatical interpretation of a particular pattern. The basic principle is that the thematic element that originates 'outside' the clause must be interpretable as a ranking element of that clause under an alternative analysis. We have already illustrated this principle in relation to themes from projected hypotactic dependent clauses where the ambivalence lies in the interpretation of the projecting clause (Section II:1) and will return to the principle in Section II:2.5 below. We will now turn to Huddleston's discussion of multivariate and univariate structure in relation to rank.

2.1 Multivariate and univariate structure

(i) Clause complexes, transcription, and total accountability

In discussing complexes, Huddleston writes: "These complexes have purely univariate structures and with one unexplained exception they fall outside the scope of the total accountability requirement." Since Halliday doesn't mention the requirement in his introductory book it would seem that he cannot reasonably be expected to explain exceptions to it.¹⁵ However, let's look at this alleged exception. This is the problem Huddleston finds:

total accountability is apparently retained for the clause complex. The grammatical category initially called the sentence comes to be renamed clause complex (p. 193) -- freeing the term sentence for a rank in the writing system. The amended terminology brings out the parallelism between univariate structures consisting of clauses and those consisting of groups or words: *Jill walked out of the room and Tom dashed after her* is a clause complex, *the boss and her husband* a (nominal) group complex, *more and more* (as in *he's getting more and more pedantic*) a word complex. But Halliday then says that a written 'sentence can be treated as one clause complex, with the "simple" (one clause) sentence as the limiting case". This implies that a clause complex may consist of a single clause -- and, as remarked above, the notational system with 'III' for what is now a clause complex boundary and 'II' for a clause boundary implies total accountability at both ranks. Note that there is no boundary signal distinct from the group marker 'I' to indicate group complexes: these are shown simply by the Greek letter or Arabic numeral labelling of groups. Why then is the clause complex treated differently with respect to total accountability?

Since Halliday actually says that the *sentence* as a unit of *writing* can be a clause complex and that a one-clause sentence is the limiting case it hard to know what to respond to the implication Huddleston finds that a clause complex may be a single clause: Halliday writes "sentence" and Huddleston reads "clause complex".

The general point is that a clause or any other unit of the grammar is always a *potential* expansion point, the potential beginning of a complex; this is the nature of complexes, which are purely univariately organized (as opposed to multivariately organized units): complexes are non-constructional -- that is, their elements are not to be seen as parts of wholes; the interpretation of clause complexes is through interdependency rather than constituency. Halliday (1985a) presents an analysis of one fairly complex clause complex and then goes on to comment:

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The clauses that go to make up a clause complex such as this one are not embedded one inside another. The speaker does not construct a mental plan of the grammar in advance, like a completed architectural drawing; rather, he sets out on a journey, and each lap of the journey takes him to a point from where he can set out again. One lap may be dependent on another, in the sense that he sets out for point (a) because this is a good way of getting to point (b); but each lap is a distinctive stage in his progress. The grammar (that is, the model of grammar) that is used for interpreting casual conversation needs to represent the clause complex in this fashion, rather than as a static edifice of structural constituents.

It is the on-going nature of clause complex development that we need to come to grips with, according to Halliday. We need to develop a type of grammar that can deal with the dynamics of spoken discourse and one central aspect of this is the open-ended nature of clause complexes.

Now let's go on to consider the alleged notational problem with 'III', 'II', and 'I' Huddleston is interested in -- the problem that clause complexes and other complexes are not transcribed in parallel ways. First of all, it can be noted that these symbols are part of the resources for *transcribing* text according to the grammatical analysis in a perspicuous way. They are obviously not part of the theory of grammar and to treat them as such (as Huddleston does) is misleading. Clearly, if Huddleston or anybody else using the grammar feels that the transcription is easier to read without boundary markers between the clauses of a clause complex, they can leave them out: the information can be inferred from the analysis of the univariate structure of the clause complexes -- once the analysis has been carried out. Second, the parallels between clause complexes and other complexes are brought out in the *description*, where they are treated as paratactic or hypotactic univariate chaining structures.

(ii) Groups; the adverbial group

Let's now consider an issue at group rank. Huddleston suggests that the existence of the **adverbial group** in the grammatical interpretation is unnecessary. Since it has only a univariate structure and not a multivariate one as well (unlike the nominal group and the verbal group), it could, he suggests, be treated as an adverbial word complex along the same lines as *very gently* in *the very gently simmering stew*; *very gently* would not be analyzed as an adverbial group in IFG but simply as a submodifying adverb complex.

To begin, it is important to ask why the existence of both possibilities should be a problem. It might very well be the case that from one point of view (say from the point of view of its function in clause structure) this unit is a group, but that from another point of view (from the point of view of its own internal structure) it is simply a word complex. In general, the theory and the interpretation are useful if they bring out potential tensions in the system of the grammar. However, let's look more closely at Huddleston's reductionist suggestion.

(i) The adverbial group alternates with the prepositional phrase in realizing circumstances in the clause (as in *Let's leave tomorrow / on Monday*), interpersonal and textual adjuncts (or indeed postmodifying qualifiers in the nominal group: *the meeting yesterday / on Monday was a huge success*). This is an important reason for recognizing an adverbial group. It can form complexes with prepositional phrases (e.g. *Let's leave tomorrow or on Monday*; *Let's leave tomorrow, i.e. on Monday*). The choice between adverbial group and prepositional phrase depends partly on the particular type of circumstance, interpersonal, or textual adjunct. For instance, circumstances of Manner: quality tend to be realized by adverbial groups (*she walked quickly*) whereas specifications of Means are typically realized by prepositional phrases (*she walked with a stick*). But, in general, the adverbial group and the prepositional phrase have the same functional range.

(ii) Now, how does the adverbial group compare with adverb complexes such as *very gently* in *the very gently simmering stew*? If Huddleston was right in suggesting that they should be treated the same way (as adverb complexes) and that Halliday's differentiation is an

unmotivated artefact of the principle of total accountability, they should be the same. However, they clearly aren't: the premodifying adverb complex cannot normally be expanded by a prepositional phrase (through coordination or apposition; eg. ??*the very gently, i.e. with great gentleness, simmering soup*; cf. *the soup was simmering very gently, i.e. with great gentleness*). Moreover, the range of adverbs in the adverb complexes is much smaller than the range of adverbs serving as Head of the adverbial group; the former is largely restricted to intensifying adverbs of various kinds or, submodifying participial premodifiers such as *simmering*, adverbs of qualitative manner, while the latter spans the full range of adverbs (including those of time and space).

(iii) One further important reason for recognizing the adverbial group is that it can have a rankshifted 'qualifier' just like the nominal group. Thus we find *the stew was simmering more gently than the soup*. In contrast, adverbial submodifiers in the nominal group are awkward with rankshifted qualifiers:

(41) ??the more gently than the soup simmering stew

(42) ??the more gently simmering stew than the soup

This is precisely what Halliday's analysis predicts: the adverbial group is different from submodifying adverb complexes in the nominal group.

Given Halliday's recognition of the adverbial group, Huddleston finds it strange that there is no **adjectival group** in the grammar. The simple answer is that of course there is an adjectival group; it is a kind of nominal group, with an adjective as Head, just as the 'substantival' group is a kind of nominal group, with a 'substantive' as Head: Huddleston's puzzle is just a matter of delicacy.

2.2 Rankshift versus hypotaxis

Huddleston's discussion in this section deals with Halliday's interpretation of the traditional category of **subordination** – a category Halliday never adopted and which is now recognized as being very problematic (see e.g. Cumming, 1984; Haiman & Thompson, 1984; cf. also further below). This topic is very important but the issues Huddleston brings up are *descriptive* ones and have nothing to do with Halliday's *theory* of rank: Huddleston's preferred analysis is a descriptive alternative and could be accommodated within Halliday's theory without any problems (as will be noted below). It is thus a source of confusion to include the discussion as part of the general discussion of the theory of rank, but we have chosen to follow Huddleston's outline for ease of reference.

Halliday uses a rhetorically natural approach to clause combining in his account of the clause complex; his functional interpretation shows how the grammar embodies the rhetorical principles of the organization of text. This is a crucial step in our understanding of grammar but it would take far too long to go into here: see Matthiessen & Thompson (1987); cf. also Martin (1988). The approach also gives us a way of dealing with spontaneous spoken discourse (see Halliday, 1985a) and to bring out the difference between it and the written mode of organization, found for example in extreme forms the English of science, humanities, and public administration. Beaman (1984) provides evidence that Halliday's distinction between hypotaxis and embedding supplies us with a critical tool in exploring these differences.

In Halliday's treatment, clauses combine through interdependency, either paratactically or hypotactically. The category of hypotaxis is in a sense intermediate between parataxis (coordination, apposition, and so on) and rankshifted clauses serving as constituents of clauses or groups (i.e., embedded clauses) and means that clauses can be seen to combine without one being embedded in the other.

Huddleston objects to Halliday's differentiation between rankshifted (embedded) clauses and hypotactically related ones. He focuses on two types of example, temporal enhancing

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expansion¹⁶ (*he left before the vote was taken*) and projection (*he assumed that she was guilty*). Let's first consider the objection in the context of enhancing hypotaxis.

(1) **Enhancing hypotaxis.** According to Halliday's model of the clause complex, the clause *before the vote was taken* is hypotactically related to *he left* in the clause complex *he left before the vote was taken*. Huddleston objects that according to this analysis the dependent clause has to be treated differently from the phrase *before the debate* in *he left before the debate* which would be an Adjunct. He argues that the clause and the phrase behave in the same way. Before looking at this argument, let's consider a few observations.

(i) **What to treat as the basic agnation.** In the analysis Huddleston seems to prefer, the clause *before the vote was taken* would presumably be embedded as an Adjunct in *he left* -- and there is no theoretical problem with this in a rank-based grammar (indeed, this is precisely the treatment Hudson opted for in Huddleston et al. (1968); see further below). But notice the consequence of this analysis: it divorces clause combinations of this kind from paratactic clause complexes such as *he left, then the vote was taken*, whereas the two types are brought together in Halliday's analysis, which operates with hypotactic and paratactic clause complexes. In Halliday's interpretation, the combination *he left before the vote was taken* would be related to the paratactic complex *he left, then the vote was taken*. In Huddleston's interpretation, this relationship would be completely lost. Huddleston doesn't say why he would treat the (dependent) clause *before the vote was taken* and the phrase *before the debate* in the same way rather than the (dependent) clause *before the vote was taken* and the independent clause *then the vote was taken*. And yet, the grouping of hypotaxis together with parataxis is one of the basic properties of Halliday's model of the clause complex -- a property which is brought out again and again in the discussion and in tables throughout Chapter 7 of IFG. In general, there will always be potentially conflicting criteria when we group constructions together into agnation sets and we have to choose the account that provides us with the most powerful generalizations. It is thoroughly misleading to pretend, as Huddleston does, that the situation is clear-cut and that there is only one agnation relation to take into consideration. Halliday's account foregrounds the agnation between parataxis and hypotaxis and it also allows us to explain why *before the vote was taken* is immediately accessible to argumentation in discourse just as a paratactically related clause would be:

(43) A: He left before the vote was taken.
B: Was it?

(44) A: He left and then the vote was taken.
B: Was it?

(As noted above in Section II:1, rankshifted clauses are not discourse accessible in this way.)

But there is a wider academic context of discussion Huddleston does not refer to, which is coming into focus quite clearly in current linguistic research. Halliday's notion of the clause complex as he developed it in the 1960s in association with Huddleston (cf. Huddleston, 1965) anticipates a recent movement on the part of several researchers to re-examine and re-evaluate the traditional notion of subordination that is typically taken for granted in grammatical analysis - see for example Munro (1982), Haiman & Thompson (1984), Van Valin (1984), Foley & Van Valin (1984), and the collection of papers in Haiman & Thompson (1989).

(ii) **Where similarities can be captured.** Huddleston writes that "it is strange that in a theory that attaches prime importance to function" examples such as *he left before the vote was taken* and *he left before the debate* (Huddleston also includes projection here; we'll get to it below) "should be given such radically different analyses on account of the difference in internal structure of the final element". But there are, of course, other ways of bringing out the similarity: Halliday discusses semantic types such as enhancement (time, cause, etc.) that recur throughout the grammar, gives a synoptic summary of these types on pp. 306-7, and devotes one entire appendix to the discussion and illustration of this phenomenon. (Huddleston does not refer to

these although they are directly relevant to his criticism.) In other words, similarities of the kind Huddleston perceives are not necessarily structural.

(iii) What is the nature of *he left before the debate* in any case? Huddleston presents the analysis of *before the debate* as Adjunct as the only relevant aspect of the interpretation of an example like this in terms of the IFG framework. However, Halliday's notion of grammatical metaphor (Chapter 10 of IFG) allows us to take the analysis one step further. We can treat the example as a clause complex (*he left before they started to debate*, or the like) that has been construed metaphorically as a single clause; the dependent clause of that complex is construed as a prepositional phrase serving as a Locative circumstance -- see Figure 3.

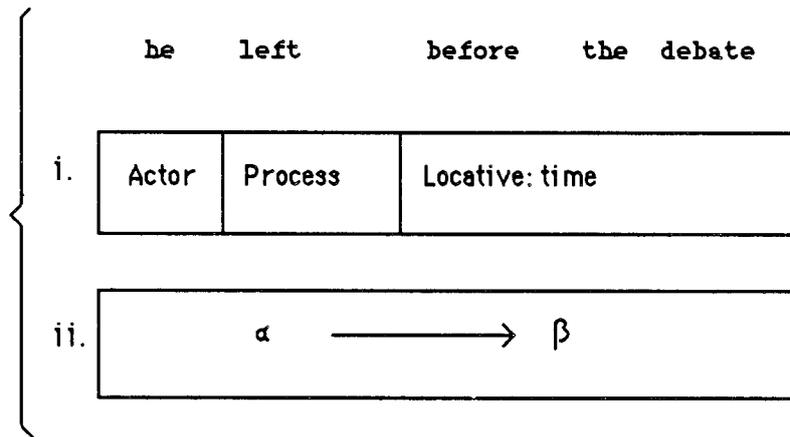


Fig. 3: Congruent and metaphorical interpretations

Since Huddleston doesn't mention this possibility, it is not clear what he would think of it. He might object that it is only relevant to reified processes like *debate* but that he would want to treat *he left before nine* and *he left before the vote was taken* in the same way, contrasting them with *he left then the the vote was taken*. But the relationship between *before nine* and *before the vote was taken* is somewhat less convincing than the relationship between *before the debate*, where nominalisation is involved, and *before the vote was taken*.

Let's now turn to Huddleston's arguments that the clause *before the vote was taken* and the phrase *before the debate* function in the same way. Huddleston's evidence is as follows:

(i) "Both can be fronted: *before the debate / before the vote was taken he left*." It should be noted that Halliday points out that the thematic principle is not limited to the clause; it is also in operation in the clause complex (Section 3.6 and Appendix 1 in IFG) and even in the structures of the nominal group and the verbal group. Thus by itself, the recurrence of the thematic principle does not constitute an argument that thematic elements must all have the same grammatical function in the other functional components. Note also that the principle is in operation across clauses that are not structurally related (cf. Halliday, 1982 on topic sentences etc. in text; see further Martin, 1989b); for instance: *They debated. Then the vote was taken. : The vote was taken. Earlier they had debated*. Presumably Huddleston would not consider this alternation an argument in favour of the interpretation of *They debated* as a circumstantial adjunct comparable to *before the debate*.

(ii) "Both can appear in the cleft construction: *it was before the debate / before the vote was taken that he left*." In his chapter on clause complexes in Huddleston et al (1968), Hudson draws the line between dependent clauses in hypotactic clause complexes and rankshifted clauses as Adjuncts at a different place from where it is drawn in IFG. One of the distinguishing tests is the possibility of focussing the clause in a 'cleft' construction. Clauses such as *before the vote was taken* can be focussed and are thus treated as embedded Adjunct clauses. However, *since*-clauses

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(in the sense of 'reason') cannot be focussed and are consequently analysed as dependent clauses in clause complexes. In general, elaborating and extending clauses cannot be clefted; some enhancing ones can whereas others cannot – see Table 4.

		cleft impossible	cleft possible
elaboration		which/who/...	
extension		besides/as well as/...	
enhancement	condition	if/even if/...	
	concession	although/...	
	reason	since -	because-
	manner	as if -	like -
	time	as -	when/before/...
	space		where

Table 4: The option of clefting with different hypotactic expansions

It is strange that Huddleston doesn't draw attention to the difference discussed by Hudson (1968) in his criticism of the analysis of *before the vote was taken*. As Hudson's account shows very clearly, the issue is not whether there are dependent clauses hypotactically related to dominant ones in clause complexes (contrasting with rankshifted ones) but where to draw the boundary between dependent clauses and rankshifted ones. Halliday (1985) and Hudson (1968) draw it in different places and that would seem to identify the empirical issue to address. Halliday gives preference to the criteria having to do with discourse accessibility and the parallelism between parataxis and hypotaxis, whereas Hudson chooses to foreground other criteria. And there is, of course, no a priori reason why the so-called cleft construction should not also operate within the clause complex with respect to certain types of enhancing hypotaxis.

(iii) "Both can be the focus of an interrogative: *did he leave before the debate / before the vote was taken?*" This is a matter of the distribution of information into information units, which is a variable independent of the distribution into clauses: cf. Halliday (1967: 33-4).

(iv) "And, perhaps most damagingly for Halliday's analysis, they can be coordinated: *He left before the debate or (at least) before the vote was taken.*" But there is nothing in Halliday's system to block the analysis of this pattern. Either we can treat the clause *before the vote was taken* as rankshifted in this environment, serving as the extending element in a group/phrase complex or we can analyze the example as an elliptical clause complex: *He left before the debate or [he left] (at least) before the vote was taken.* Both analyses are theoretically possible.

We see, then, that none of Huddleston's objections to Halliday's analysis are "damaging" and that the alternative Huddleston proposes -- the traditional account -- misses important generalizations about the parallels between parataxis and hypotaxis. We can now turn to the second type of example, projecting hypotaxis.

(2) **Projecting hypotaxis (reporting).** Huddleston argues that since we can get *too much was simply assumed* and *that she was guilty was simply assumed*, therefore the two active examples *he assumed too much* and *he assumed that she was guilty* should both be analysed the same way. But he doesn't relate this to the use of the substitute form *so*, as in

- (45) Is she guilty?
I assume so. [i.e., that she is guilty]

which is unlike phoric reference to embedding: *have you broken the glass? – yes, and I regret it* [i.e., (the fact) that I've broken the glass] – see IFG, p. 234. Nor does he contrast it with

- (46) Is she guilty?
It was assumed by everybody.

That is, *I assume* -- and -- *was assumed by everybody* are different with respect to the phoric item used to presuppose the previous proposition. The former uses a substitute item, whereas the latter uses a reference item (there is no so *was assumed by everybody*).

In general the observations concerning enhancing hypotaxis are also relevant here. For instance, it is important to note that Halliday's analysis relates the reporting structure *I say/think/assume that she is guilty* to the quoting structure *I say/think/assume "She is guilty"* -- this agnation is lost if *that she is guilty* is treated as a clause embedded in the reporting clause. Halliday's analysis thus brings out the proportionality of parataxis to hypotaxis in both expansion and projection:

- (47) He left and then the vote was taken
(48) He left before the vote was taken

(49) I said "She is guilty"
(50) I said that she was guilty

The reported clause is arguable and thus accessible to the discourse, as hypotactic clauses in general are:

- (51) A: I assumed that she was guilty
B: She wasn't!

Furthermore, the test with cleft that Huddleston relies on to demonstrate constituenthood is problematic for most types of projecting hypotaxis; for example:

- (52) ? It was that she was guilty that I said / thought / believed

In contrast, rankshifted clauses undergo theme predication without any problems:

- (53) It was (the fact) that she was guilty that I regretted

And, as Halliday points out (IFG p. 245), examples can be found that are ambiguous between the clause complex structure and the clause structure with embedded clause. Thus, *Mark Anthony feared that Caesar was dead* can mean either (i) 'he feared (and wished otherwise) that Caesar was dead' (hypotaxis) or (ii) 'he feared (because of the fact) that Caesar was dead' (embedding). Similarly, *I'm worried that she doesn't know* can mean either (i) 'I consider it possible (and am disturbed by the possibility) that she doesn't know' (hypotaxis) or (ii) 'I'm worried by the fact that she doesn't know' (embedding). This kind of ambiguity indicates the need for recognizing both types of structure.

In summary, then, Huddleston's objections are descriptive, not theoretical. The real debate is whether or not to distinguish two types of 'subordination', hypotaxis and embedding, and if

distinguished, where to draw the line between them. Fawcett (1980), for example, working within a theoretical framework closely related to Halliday's, treats all of Halliday's hypotactic clauses through embedding, the very position which Huddleston seems to espouse. Similarly, Martin (1988), working within Halliday's own framework, suggests treating hypotactic projections and enhancements simultaneously as clause constituents from the point of view experiential (as opposed to logical) meaning; for examples, see Figure 4.

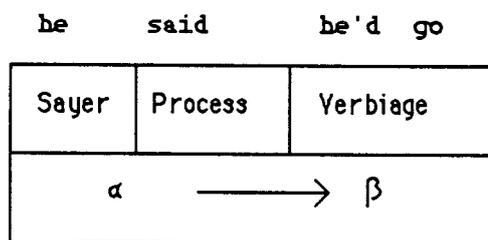


Fig. 4a: Simultaneous analysis as clause and clause complex

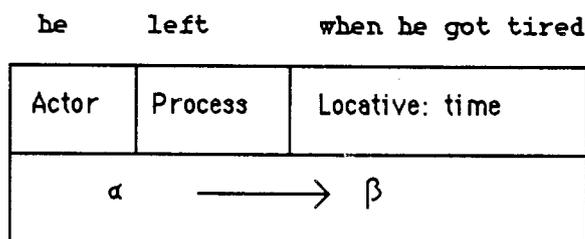


Fig. 4b: Simultaneous analysis as clause and clause complex

The theory can thus be seen to accommodate a range of approaches to the question of 'subordination'. Indeed it is precisely the theoretical extravagance to which Huddleston consistently objects which makes this possible.

There are two additional matters to be noted in this section; both are examples of Huddleston misrepresenting IFG.

(a) Huddleston writes (p. 145) of *why she did it remains a mystery* that "according to Halliday, *why she did it* is Head in a nominal group which again is subject of the main clause." He then comments on this analysis in footnote 6: "I cannot see any justification for saying that it is Head in a nominal group structure rather than (immediately) Subject in clause structure: it cannot enter into construction with any of the Pre- or Postmodifiers that are found in genuine nominal groups -- and it behaves differently from a nominal group with respect to extraposition and interrogative-formation." This comment should be read in the context of what Halliday actually says (IFG, p. 219; our italics): "Where the embedded element functions as Head, we *may leave out the intermediate (nominal group) step* in the analysis and represent the embedded clause or phrase *as functioning directly in the structure of the outer clause*, as Subject or whatever. This is a notational simplification; it does not affect the status of the embedded element as a nominalization." The justification Huddleston cannot see is, of course, the agnation between *why she did it remains a mystery* and *the reason why she did it remains a mystery* -- cf. similarly, *(the time) when*, *(the place) where*, *(the fact) that*, etc.; when there is no Thing (*reason, time, place, fact, idea*, and so on), the qualifying clause serves as Head and there are no premodifiers of the absent Thing; but when there is a Thing it can, of course, be premodified: *the strange reason why she did it*, etc.. Huddleston's account would simply treat these agnate pairs as unrelated.

(b) Huddleston claims (p. 147-8) that since *rather surprisingly* and *very carefully* are both adverbial groups they "must consequently appear at the same place in the constituent structure" in Halliday's analysis of an example such as *they had already read the report very carefully /*

rather surprisingly. This claim is presumably an oversight on Huddleston's part; the two clearly do not appear at the same place in the constituent structure: *very carefully* is a circumstance of Manner in the experiential constituency structure of the clause (and consequently a circumstantial Adjunct), whereas *rather surprisingly* is a Comment Adjunct in the interpersonal constituency structure of the clause (cf. IFG p. 83). In general, the multifunctional layering of the clause Huddleston ultimately rejects allows us to 'locate' expressions in places that are metafunctionally different without having to introduce further constituency bracketing (cf. footnote 20 below).

2.3 Maximal and minimal bracketing

Huddleston's Section 2.3 is concerned with the contrast between maximal and minimal bracketing, but his main point seems to be that "hypotactic univariate structures do not lend themselves satisfactorily to the minimal bracketing principle": see below.

If we consider the bracketing of syntagms or sequences of classes (Halliday, 1966), there is more than one tradition to be taken into account. Huddleston prefers a version of IC-analysis, the approach developed within neo-Bloomfieldian linguistics, which leads to maximal bracketing — as far as the major division of the clause goes, it reflects the Subject-Predicate analysis of traditional logic and grammar. Both Pike and Halliday, on the other hand, have developed approaches to analysis preferring a flat minimal bracketing of grammatical classes. In this approach, constituency reflects the number of ranks in the grammar (e.g., clause, group/phrase, word) rather than the number of words in the clause. Perhaps the most immediately striking difference is that there is no VP (the class translation of the traditional function Predicate); but there are other important differences as well, such as the lack of the bracketing introduced by the existence of S-bar as well S and COMP (cf. the table provided at the beginning of Section II:2). It should also be noted that maximal bracketing has also been rejected by pure dependency grammarians, in modern times from Tesnière (1959) onwards.

In Halliday's (e.g., 1966) work it is important to note the distinction between syntagm and structure. A *syntagm* is simply a flat minimal bracketing of grammatical classes such as nominal group ^ verbal group ^ nominal group. The syntagm is complemented by a multi-layered function-structure. (Halliday's distinction anticipates the distinction developed within functionally oriented formal theories such as LFG between c-structure and f-structure.) As in LFG where c-structure and f-structure may impose distinct bracketings requiring unification,¹⁷ Halliday's function structure may contain certain groupings that do not correspond to the classes of the minimally bracketed syntagm — groupings such as the Mood element of the interpersonal layer of clause structure.

The reason for this lack of correspondence is that Halliday's functions are not simply re-labellings of word and group/phrase classes according to what they do, as in the slot and filler approach adopted in Tagmemics. (Huddleston's (1984) own functions are of this latter kind.) This follows from the fact that the point of entry into the grammar is the clause rather than the word: the basic question is not "what function does this word or group serve?" but rather, "how is the clause organized to make meaning?" The functions, in other words, are designed to capture fundamental proportionalities in the grammar and these proportionalities differ from one meta-function to the next. For example, the Theme ^ Rheme structure captures proportionalities of the following kind (Themes underlined, Rhemes not):

Senser/Subject : Phenomenon/Subject

(54) I love it : it pleases me

(55) I loathe it : it appalls me

(56) I realized it : it struck me

However, a different structure, Mood Residue, is required to bring out the following dialogic proportionalities (Moods underlined, Residues not):

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Mood ^ Residue : Mood

(57) I'd love it : Would you?

(58) I'll loathe it : Will you?

(59) I had realized it : Had you?

Maximal bracketing, in contrast, generates considerable labelling which serves neither to identify independently motivated grammatical classes nor to bring out proportionalities in the system.

The differentiation between syntagm and function structure is obviously an important principle in Halliday's theory and has been since the 1960s; for instance, only units of particular classes are the points of origins of systems -- functional elements such as Mood and Theme that are not realized by units are not the points of origins of systems. Furthermore, it is not necessary to create classes (phrase categories) whose only motivation is to provide structural groupings: functional elements can take care of that.

Huddleston takes issue with **hypotaxis** in relation to minimal bracketing. He writes that "it seems to me that hypotactic univariate structures do not lend themselves satisfactorily to the minimal bracketing principle." This claim seems rather odd in view of the contrast between an IC analysis of *those two splendid old electric trains* as contrasted with the analysis of it in terms of hypotactic univariate structure¹⁸ in Figure 5.

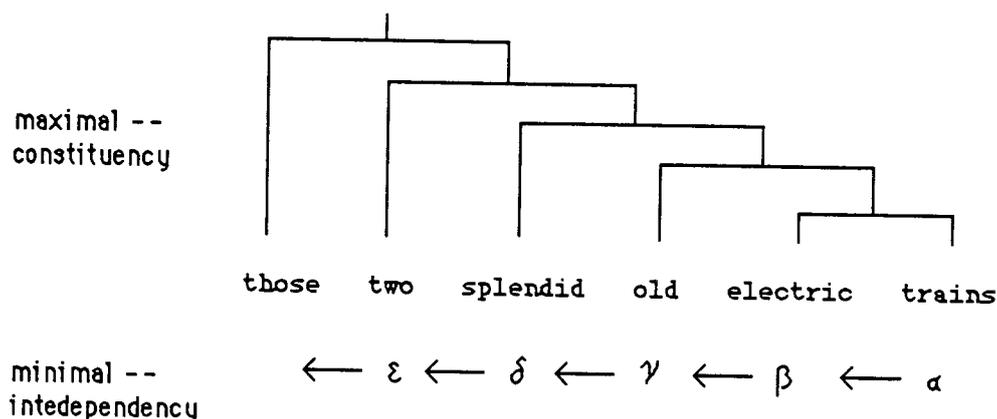


Fig. 5: Bracketing and structure type

One of the properties of hypotactic univariate structure is precisely that the **logical ordering** it embodies ($\alpha \beta \gamma \delta$ and so on) represents the successive modification without necessitating the introduction of intermediate nodes. That is, hypotactic univariate structure allows us to represent groups and complexes without recursive maximal bracketing.¹⁹

However, Huddleston's objection centres on the differences in the treatment of examples such as the clause *I'll tell him the truth under such circumstances* (analyzed multivariately) and the clause complex *I'll tell him you called if you like* (analyzed univariately). The two analyses are contrasted in Figure 6.

Huddleston suggests that the difference in analysis is a property of the theory, not of English: "In this case, *you called* and *if you like* appear at different hierarchical levels -- so that we have a maximal level type of analysis. And again this difference in the treatment of [*I'll tell him the truth under such circumstances*], minimal bracketing, and [*I'll tell him you called if you like*], maximal bracketing, is simply an artefact of the model and the description."

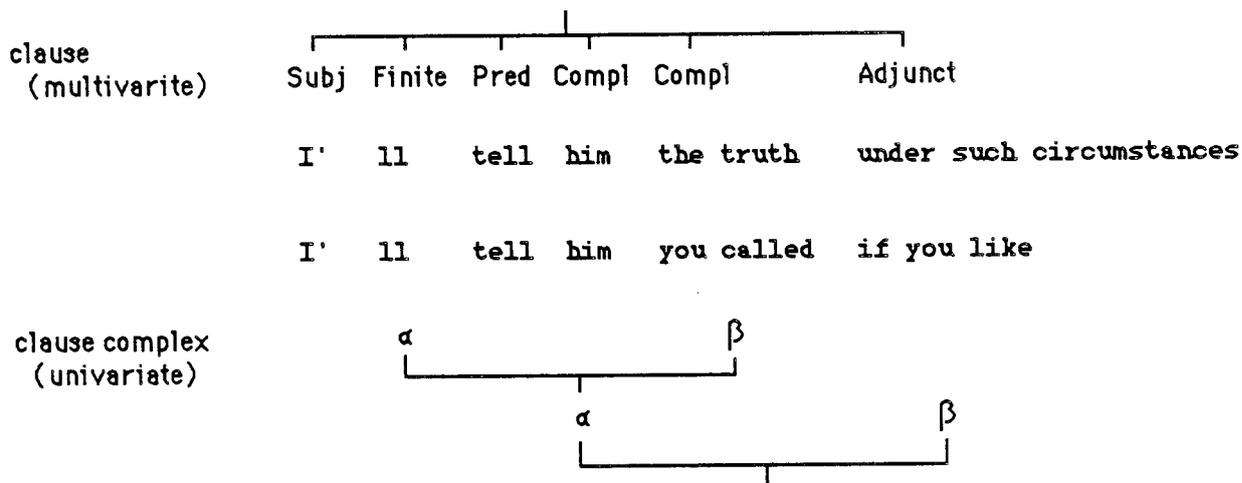


Fig. 6: Bracketing in clause vs. clause complex

Now, if the difference were simply an artefact, we should find a *systematic* distinction within the clause that matches the distinction in the clause complex represented by the different structures for *I'll tell him you'll be there if you can* ($\alpha \wedge \alpha\beta \wedge \beta\beta$) and *I'll tell him you called if you like* ($\alpha\alpha \wedge \alpha\beta \wedge \beta$). That is, we should be able to find the two alternative bracketings shown in Table 5.²⁰

<p>I'll tell him the truth under such circumstances</p>	<p>I'll tell him you called if you like</p>
<p>I'll tell him the truth under such circumstances</p>	<p>I'll tell him you'll be there if you can</p>

Table 5: Bracketing in clause and clause complex (i)

(Here it is necessary to stop to correct Huddleston's claim that Halliday's analysis of *I'll tell him you'll be there if you can* is $\alpha \beta \gamma$; it is not -- it is $\alpha \beta \alpha \beta \beta$: cf. IFG pp. 200-1. The reason is very simple: the domain of the projection of *I'll tell him* is *you'll be there if you can* and not just *you'll be there*; the extent of the domain can be seen clearly with the paratactic alternative: *I'll tell him "Henry'll be there if he can"*. Compare

- (60) I'll tell him you'll be there if you can
- (61) I'll tell him "Henry'll be there if he can"

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(62) I told him to be there if he could

(63) I told him "Be there if you can"

(64) I thought he'd be there if he could

(65) I thought "He'll be there if he can"

Related to Huddleston's erroneous analysis of *I'll tell him you'll be there if you can* is probably his claim that (15) (iii) $\alpha \beta \gamma$ occurs in IFG but not (ii) $\alpha \beta\alpha \beta\beta$. This claim is simply incorrect; both occur – see e.g. IFG p. 201.)

However, as long as there is no evidence for a *systematic* alternation of this kind, the minimal bracketing of the multivariate analysis achieves precisely what we want to say: potentially different scopes are not reflected in the structure of the clause, whereas clauses can combine to give different bracketings, as shown in Table 6.

(Note that both of the hypotactic clause complexes alternate with paratactic ones: $\alpha \beta\alpha \beta\beta$ (e.g. *I'll tell him you'll be there if you can*) alternates with $1\ 2\alpha\ 2\beta$ (e.g. *I'll tell him "Henry'll be there if he can"*) as shown in the proportionalities above. In contrast, $\alpha\alpha\ \alpha\beta\ \beta$ (e.g. *I'll tell him you called if you like*) alternates with $\alpha_1\ \alpha_2\ \beta$ (e.g. *I'll tell him "Henry called" if you like*) as follows:

(66) I'll tell him you called if you like

(67) I'll tell him "Henry called" if you like

(68) I'll tell him to be there when I can

(69) I'll tell him "Be there" when I can

(70) I thought he'd be there when I was home

(71) I thought "He'll be there" when I was home

These alternations demonstrate the need for the two alternative bracketings which Halliday provides for.)

In his summary of the discussion, Huddleston argues that the hypotactic univariate structure $\alpha \beta \gamma$ etc. is unmotivated and interpreted inconsistently. However, it is neither unmotivated nor interpreted inconsistently. (i) First, it is not unmotivated. On the one hand, we need $\alpha \beta \gamma$, as well as both $\alpha \beta\alpha \beta\beta$ and $\alpha\alpha\ \alpha\beta\ \beta$, as the following examples (due to Halliday) show:

(72) infant birth rate ('rate of birth of infants')
 $\gamma \quad \beta \quad \alpha$

(73) record birth rate ('birth-rate of record proportions')
 $\beta \quad \alpha\beta \quad \alpha\alpha$

(74) still birth rate ('rate of still-births')
 $\beta\alpha \quad \beta\beta \quad \alpha$

On the other hand, the structure $\alpha \beta \gamma$ allows us not to have to choose between $\alpha \beta\alpha \beta\beta$ and $\alpha\alpha\ \alpha\beta\ \beta$, as in the following example (from G. Plum, pointed out by Halliday, p.c.):

(75) α it appeared that Teddy,
 β who owned the most magnificent dachshund,
 γ which was Lurid Liberace, ...

<p>I'll tell him you called if you like</p>	<p>I'll tell him you'll be there if you can</p>
<p>Su Fi Pred Compl Compl I'll tell him the truth under such circumstances</p>	

Table 6: Bracketing in clause and clause complex (ii)

(ii) Huddleston claims that $\alpha \beta \gamma$ is interpreted inconsistently, one way in the clause complex and one way in the nominal group. However, the interpretations are simply *different*, not inconsistent. What the grammar represents is the highly generalized notion of modification -- hypotactic interdependency ($\alpha \beta \gamma$ etc.). It is reflected formally in the grammar in the treatment of the dependent elements in relation to the elements they are dependent on in a hypotactic chain: the dependency is marked. As can be expected, the exact nature of the *marking* is