

DE-ADJECTIVAL ADVERBIALS IN  
TRANSFORMATIONAL GRAMMAR.

by

D.R.J. KNOWLES

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## ABSTRACT

The purpose of this thesis is to define the processes involved in the formation of Adverbials which have the morphological shape adj+ly, in terms of the theory of Transformational Grammar and starting with the assumptions about syntax contained in Chomsky's "Aspects of the Theory of Syntax" (1965).

This thesis is therefore fundamentally descriptive in its aim and attempts to provide analyses for the traditional de-adjectival Adverbials, that is for Manner and Degree and Sentence Adverbials. These are found to be considerably more varied in their syntactic origins than has generally been supposed. It has also been necessary to relate to de-adjectival Adverbials other structures e.g. with + N.P. and like +N.P., which carry out identical functional roles. Some of the conclusions arrived at have implications not only for the analysis of particular structures but also for the nature of the "Model" set up to define natural language.

The thesis starts with a consideration of prevalent assumptions concerning the analysis of these Adverbials. One of the central notions of current theory, here termed "The Doctrine of the Unique Source", is that which attempts to explicate the relationship between alternative surface forms of Manner and Degree Adverbials by hypothesising a single Deep Structure category from which they all arise. This "Doctrine"

is intimately linked with theoretical assumptions about the nature of Interrogatives and the definition of syntactic function. Since the conclusion is here reached that the "Unique Source" is a mistaken hypothesis some of the support for these related theories is removed.

Finally, a further theoretical implication of this study is that the "Aspects" Model is inadequate for defining a relationship between categories that is required for the expression of a process common to all de-adjectival Adverbials. In fact it provides further empirical evidence that the notion "A qualifies B" must be directly definable.

## ACKNOWLEDGEMENTS

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CHAPTER 1

"THEORIES OF MANNER AND DEGREE ADVERBIALS"

INTRODUCTION

The purpose of this thesis is to give an explanation in terms of the theory of Generative Grammar developed by N. Chomsky<sup>1</sup> of the processes whereby Adverbs which are morphologically related to Adjectives are produced by the syntactic component of a Transformational Grammar. The main intent of this investigation is therefore descriptive. Ideally, the "explanation" sought after will distinguish between the grammatical and ungrammatical strings of these adverbials both internally and externally. By "internally" I mean that it will define the permissible combination of elements which together compose this adverbial unit. Thus in

(1) John speaks greenly

it should specify that green and ly are not grammatically compatible. It will also have to characterise the allowed relationships of the adverbial unit with categories and lexemes external to it. For example it must be capable of accounting for the fact that the following sentence (2) is

unacceptable

(2) Intelligently, the glass fell to the floor.

There are, of course established theories that purport to account for these two deviant sentences, and for the purpose of exposition I shall initially assume their validity. In chapter 1 the current theoretical position of Transformational Grammarians vis a vis these adverbials is outlined and examined in the light of its own arguments and justifications.

In chapter 2, I bring evidence which I interpret as casting doubt upon the validity of the claims of Current Theory. In the subsequent Chapters I suggest how present theory might be revised in order to give a more accurate account of these adverbials and I analyse the principal types of de-adjectival adverbials.

It should be noted that the Current Theory just referred to is in fact made up of a hierarchy of hypotheses or theories. For example, at the lowest level, is the theory of de-adjectival adverbials within an assumed grammatical model. At this level is the assumption that there is a sub-type of these adverbials, a Manner Adverbial which is developed from a category Preposition Phrase. It is mainly with these assumptions that this work is concerned and in a later section of this chapter I examine them in some detail.

At a higher theoretical level are the theories

concerning the "assumed grammatical model". For example, it is assumed that the Model has a phrase structure component with the category ADJ in its vocabulary, which is uniquely realised by a lexeme marked with the feature  $\overline{[+ADJ]}$ . In regard to Current Theory at this level I shall assume without discussion the position outlined in Aspects (1965). It is obvious however that the adequacy of the lower theory is very much dependent on that of the Model. I shall therefore venture into Grammatical Theory when I feel that in its present formulation it is incapable of accounting satisfactorily for some aspect of the syntactic behaviour of these adverbials.

#### THEORIES OF MANNER AND DEGREE ADVERBIALS

Within Transformational Grammar, certain classes of de-adjectival adverbials have been studied but generally as self-contained functionally defined categories, that is, as Manner Adverbials, Degree Adverbials and Sentence Adverbials. It is the claim of this thesis that there are processes that apply to all three as the same unitary process and hence requires in its structural description some notion such as that implicit in the term "De-adjectival Adverbial". That is, these adverbials are functionally but not categorially distinct. I feel that to study them separately is comparable to analysing the nominalisation process for Subject N.P.s as different from that for Direct Object N.P.s.



This approach, I shall refer to as "Primitive Adverbial Theory" and it is defined by the following characteristics.

- i) The adverbial function is defined by the name (label) of the dominating node
- ii) This node is disjunctively expanded into the various Surface Structure realisations of the adverb.

The other theoretical alternative,<sup>3</sup> is that advocated by McKay (1968) and Steinitz (1969) and which is the logical result of the recent theoretical innovations of Chomsky (i.e. "Aspects") and Katz and Postal (1964). I shall refer to this as Current Theory. It is characterised by the following assumptions

- i) Adverbials are not disjunctively expanded from the dominating node but all functionally identical adverbials arise from the same D.S. category
- ii) This category (or unique source) is a Preposition Phrase
- iii) Its function is defined by its place in the tree-structure

As an example of this approach consider McKays rule<sup>3</sup> (6)

(6) Adv. ----> Prep + N.P.

The above attempt to classify and generalise inevitably involves one in approximations. However, since

labels such as Current Theory and Primitive Theory are used purely for "Background" reference, I think they are sufficiently well defined.

### CURRENT ADVERBIAL THEORY

Current Adverbial Theory relating to Manner and Degree Adverbials is primarily the product of Katz and Postal's "Integrated Theory", for it is in this work that we find proposed for the first time the hypothesis that all Manner and Degree Adverbials have the same Deep Structure source, and that this source is a Prepositional Phrase. All subsequent work relating to these adverbials has assumed, unquestioningly, the correctness of this hypothesis. It is worthwhile therefore to examine the reasoning that led to its formulation.

Katz' and Postal's concern with Manner Adverbials arises out of their considering certain types of Nominalisation which appear to present a counter - example to the theory they were proposing in this monograph, which was that all the information necessary for the semantic interpretation of a sentence is contained in its Deep Structure, with the necessary corollary that any operation performed by the Transformational Component has no effect on the meaning. However, on consideration of sentence (7)

(7) I didn't like John's driving

it becomes immediately clear that it is ambiguous between the interpretations represented by the paraphrases (8) and (9)

(8) I didn't like the way John drove

(9) I didn't like it that John drove.

In other words, sentence (7) has a Manner interpretation represented by the paraphrase (8) and a Factive one which is paraphrased by (9). This semantic distinction had already been noted by Lees (1957) who had analysed (7) in both interpretations as being compounded of the same input strings, but conjoined by different transformations.

This analysis of Lees was tantamount to claiming that Transformations affect meaning, and stood as an obvious negation of the theory being proposed by Katz and Postal. It was incumbent upon them therefore to show that the Lees' analysis was wrong and that the distinct interpretations of (7) could be accounted for by differences in Deep Structure.

They begin their analysis by claiming that underlying the Manner interpretation must be a source sentence containing a Manner Adverbial, since

a) this ambiguity only exists in the cases where the verb has no Direct Object. As soon as the object is present then the difference between the Manner and the Factive sense becomes structurally overt.



else would it be possible to account for the fact that (14) is ungrammatical?

(14) John's aspect of driving

d) The next stage in the argument is the claim that the type (iv) nominal is in fact produced by Relativisation, that is, from two sentences both of which have the (adverbial) noun in common.

For the Manner Nominalisation the paradigm is therefore

(15) (i) John's way of driving

(ii) The way of John's driving

(iii) John's driving way

(iv) The way (in which) John drives  
(that )  
(null )

Consequently underlining the Manner interpretation of (16)

(16) John's way of driving

is the structure of Fig (1)

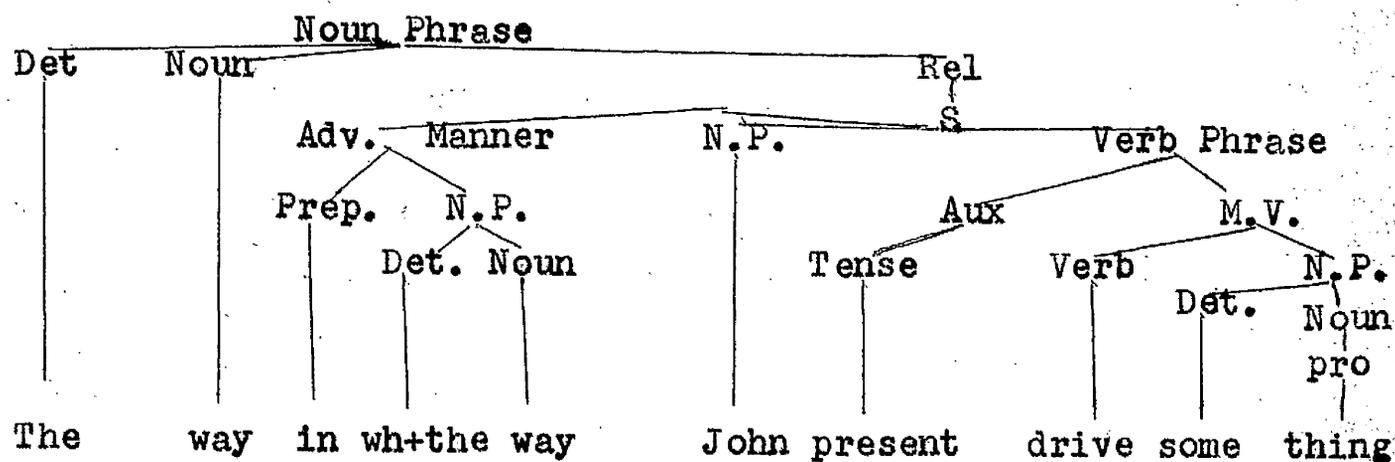


Fig. (1)

The order of the derivation is therefore the following:-

a) The underlying sentence produced by the Base Rules (and upon which only the Relativisation Transformation has necessarily operated) is that of the type (iv) nominal

(15) iv. The way in which John drives

b) This is transformed next into the type (ii) nominal

".. by the application of the optional rule which replaces a Determiner constituent dominating WH (and deletes a preceding preposition if there is one) by of when this element is the leftmost element in a Rel. constituent (subject to many restrictions as to Verb of the Relativised sentence and Noun modified by the Relative Phrase). This rule also adds the genitive formative to the right of the Noun Phrase that immediately follows the Determiner constituent dominating WH"

This process therefore operates on the structure of Fig.(1) and converts it into that of Fig. (2). It is referred to as "T of"

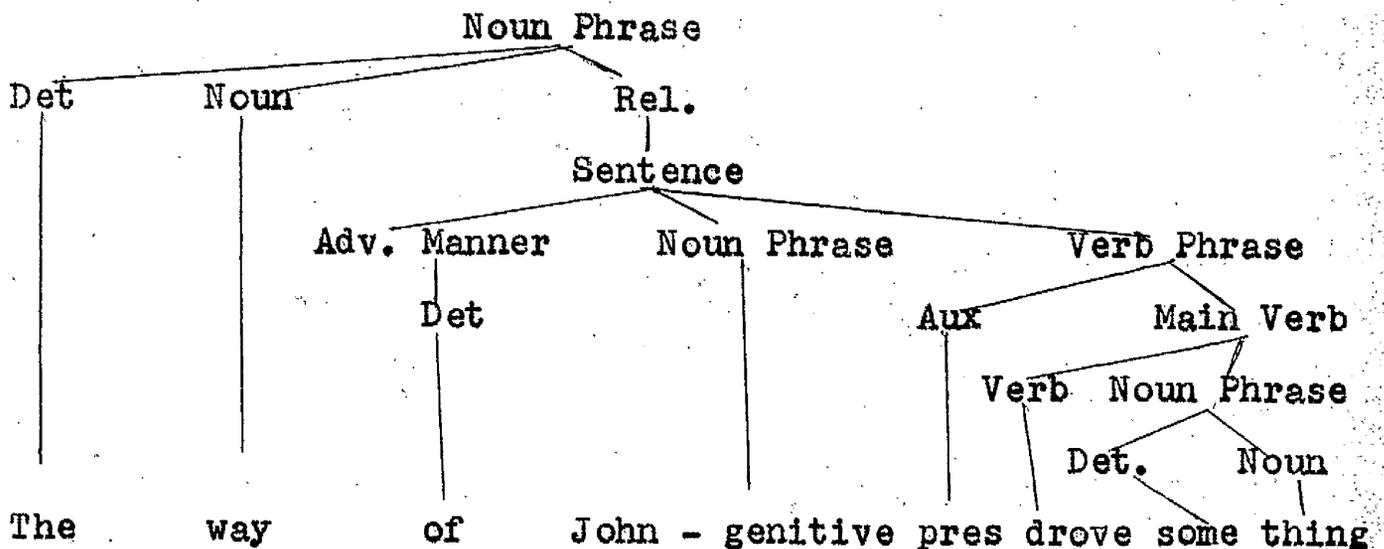


Fig. (2).

- c) "There is a subsequent obligatory rule which replaces the present tense marker by -ing or N.M.L. (depending on the further environment) in the environment genitive \_\_\_\_\_ . An optional rule later deletes the object of drive"<sup>5</sup>

The main transformation in the above process ("T of"), is claimed to be independently motivated as it is required to derive the genitive

- c) The next stage is the derivation of the type (i) nominals from the type (ii)

"By an optional rule that substitutes the Noun Phrase constituent dominating the genitive for the article the preceding the main noun"<sup>6</sup>

This then is the complete derivation of the Manner Nominals. The analysis is all the more convincing since it claims to be general throughout the adverbial system. Observe that by claiming type (iv) to be basic, and showing it to involve Relativisation, which by definition involves a Noun Phrase, we come logically to the conclusion that Manner Adverbials must basically involve Noun Phrases, and thence that the Prepositional Phrase form must be Basic.

#### The Doctrine of the Unique Source.

Let us refer to this proposal of Katz and Postal, that all Manner and Degree Adverbials, whatever their surface form, are all derived from the category Preposition Phrase as the "Doctrine of the Unique Source". I have just explained

how this concept arose, from their analysis of Manner Nominalisations, but there are other facts, external to the Manner Nominals which also, they would claim, support this thesis.

a) It gives,

"..an immediate explanation of the fact that the set of adjectives which occurs in the manner construction is exactly that which occurs with way and manner (and moreover exactly that which combines with -LY to form Manner adverbials)"<sup>7</sup>

(17) \*John's green driving of the car

b) It accounts also for the fact that there may be adjectives in the Manner Nominalisation but not in the factive.

(18) John's foolish flying of the plane

(19) \*John's foolish flying the plane.

Perhaps even greater support for the "Doctrine of the Unique Source" derives from the fact that it forms an essential part of a close knit, inter-dependent fabric of theories, so that to question it might involve one not only in finding an alternative for the Unique Source, but also replacements for the other theoretical dependencies.

The other theories I am referring to are

- i) Chomsky's theory of Functional Definition
- ii) Katz and Postal's Theories of Questions
- iii) " " " Theory of Simple Adverbials

The Unique Source and Functional Definition.

It was in the year following the appearance of "The Integrated Theory", that Chomsky's "Aspects" appeared, and in it he expounded a theory relating to how functional notions could be defined in a Transformational Grammar, that appears to support the "Doctrine of the Unique Source".

Chomsky suggests that functional relationships such as "Subject of the Sentence" and "Direct Object of the Sentence" might be defined by structural configuration, that is, by the structural relationship holding between two categories. Implicitly this meant that functional Node labels were not necessary. The structural notion necessary for this definition is that of "immediately dominates". It was demonstrated that the functional notion "Subject of Sentence" could be uniquely specified as the N.P. which is immediately dominated by S. that 'Direct Object' was the N.P. immediately dominated by V.P. . Chomsky therefore suggests the following notational conventions (20) for representing this

(20) Subject of S  $\angle \overline{\text{N.P.,S}} \rceil$

Object of S  $\angle \overline{\text{V.P.,S}} \rceil$

Chomsky, himself, makes no mention of how the notion "Manner Adverbial" might be defined. In his own fragment of the Base (pg.102) he opts to retain the Node Label "Manner", though he concedes,

"..that various modifications and extensions of these functional notions are possible, and that it is important to find empirical motivation for such improvements"<sup>8</sup>

It is left to McKay and Steinitz to argue that since all Manner Adverbials are derived from Deep Structure Preposition Phrases, and Manner Adverbials are expansions of the category V.P., the Node Label Manner is not only out of place but also redundant, since it too may be derived by the structural relationship holding between  $\bar{\Delta}$  Prep. Phrase, V.P.<sup>7</sup>

It can now be seen why the theory of Functional Definition by Configuration and the Doctrine of the Unique Source are in some sense inter-dependent. In all the cases, this process of functional definition is supposed to reflect the relationship between two uniquely specified categories. The upper category can only be V.P., and the lower Prep. Phrase. If we dispense with the Unique Source, that is, allow the possibility that the lower category may be either a Prep. Phrase or an Adjective, then the lower category is not uniquely specified, and consequently at least two definitions will be required for the function Manner Adverbial. To deny the Unique Source is in a way to question the validity of Functional Definition by configuration.

#### The Unique Source and Simple Adverbials

Another piece of evidence that appears to support

the Doctrine of the Unique Source is that relating to the analysis of "Simple" adverbials. Throughout the Adverbial system there are single word adverbials (hence "Simple Adverbials") which function either as the Interrogative form or as a subordinating conjunction. Such are for example (21)

(21) where, when, why, how.

They play the same functional role as the prepositional phrases which paraphrase them

(22) At what place, at what time, for what reason, in what way.

Katz and Postal<sup>9</sup> propose to account for the relationship of (21) to (22) by analysing the former as having the same underlying structure of (22) but with the pro-form of the head noun. They also argue that this pro-form is preceded by the indefinite article. Thus where they claim is less specific than at which place. It is immediately clear therefore that "Simple" Adverbials must be based on Noun Phrases under this theory, so Adverbials must have N.P. in their composition. This automatically supports their analysis as Preposition Phrases.

### The Unique Source and Interrogative Theory

The prevalent theoretical account of Interrogatives was also developed in this fertile monograph of Katz and

Postal<sup>10</sup>. Although certain critical observations have been made about this theory,<sup>11</sup> I know of no concrete proposal to replace it. It is therefore, in its own right as firmly established as the Doctrine of the Unique Source itself. It involves the analysis of questions as dependent on three conditions

- a) The presence of a Q morpheme
- b) The presence of a WH- morpheme
- c) The association of the WH morpheme with the Det. constituent of a Noun Phrase

Now, if condition c) is correct then any element which is subject to the Interrogative Transformation must have within it a N.P. . Consequently, since Manner Adverbials are available for the Interrogative Transformation they must contain a N.P. so this theory also supports the Unique Source, precisely because it, too, posits a N.P. within these adverbial constituents.

Let us try to summarise these arguments for The Doctrine of the Unique Source. Katz and Postal claim that Manner Adverbials trigger certain types of nominalisation. A necessary process in this nominalisation is Relativisation. Hence Manner Adverbials must be based on N.P. This is furthermore supported by the fact that if N.P.'s are considered to form part of the Manner Adverbial one can account for the set of adjectives that occur in these

adverbials, and those not appearing, through selectional restrictions between Adjective and Noun of the prepositional Phrase.

This analysis gains support from the theory of Functional Definition. Since Manner Adverbial is really a functional notion it should be defined as the relationship between two uniquely specified categories. Hence it must have underlying it a unique category. That this category should contain a N.P. is supported by the analysis given to Simple Adverbials, which considers them to be nominal pro-forms preceded by the indefinite article. Interrogative theory also provides similar evidence for an Underlying N.P., since it is claimed that the only constituent that can be questioned in language is the Det. constituent of a N.P. .

It is not surprising therefore that the Unique Source is so widely held. The best support for it comes from the fact that it is so compatible with the theories that are in effect external to it. I shall go on to argue that the Unique Source is wrong, and I shall give an analysis that I consider more realistic. Before, however, examining the empirical adequacy of the Doctrine of the Unique Source let us consider the very arguments which have been used to justify it.

CRITIQUE OF THE ARGUMENTS IN FAVOUR OF THE UNIQUE SOURCE.

It will be recalled that one of the first steps in the argument was that the sentence (7), in its Manner interpretation,

(7) I didn't like John's driving (of the car) must be derived from a Sentence containing a Manner Adverbial, the underlying source of (8) was in fact

(8) I didn't like the way in which John drove (the car).

in which case Relativisation must have applied to the Adverbial, hence a N.P. must form part of the Adverbial constituent. In favour of this derivation are the facts that a) This pattern of Nominalisation is general throughout the Adverbial system (see (1A) and (15) ) b) The transformations necessary are independently required in the Grammar.

Let us consider the claim that the transformations are independently motivated. Those that are required to convert (8) to (7) are, firstly

1) The Transformation "T of". It is required, according to Katz and Postal, for the formation of Possessive N.P.'s, so as to produce (23) from (24).

(23) The house which John has

(24) <sup>st</sup> The House of John's

Firstly, even if "T of" is a valid Transformation, it is far from obvious that it applies to the formation of the Manner Nominalisation. Thus in (24) the verb have is deleted, but not the verb drive in (7).

Secondly, it must be hedged in with so many restrictions, that if it is the same process, one must harbour serious doubts about its productivity. For example, (26) would be derived from (25) by the same rule

(25) The table at which John sits.

(26) \*The table of John's sitting.

I therefore conclude that if (7) is derived from (8) it is certainly not proven beyond dispute by the argument that the transformations involved are well-motivated. In fact current thinking on the origin of the possessive phrase is more inclined to develop it from the Determiner Constituent,<sup>12</sup> rather than transformationally. Moreover, even if it can be shown that certain possessive phrases, such as (24) do derive from relative clauses with the verb have, semantically there is a gaping semantic gulf between the type of possession implied by (24) and that of (7).

The Pattern of Nominalisation is general throughout the Adverbial system.

The fact that over most of the Adverbial System there exists a nominalisation (27)

(27) John's  $\begin{matrix} \text{(time)} \\ \text{(way)} \\ \text{(purpose)} \\ \text{(amount)} \end{matrix}$  of driving the car

paraphrased by one of the form of (28)

(28) The  $\begin{matrix} \text{(way)} \\ \text{(time)} \\ \text{(purpose)} \\ \text{(amount)} \end{matrix}$  in which John drives the car.

is certainly suggestive of the possibility that they are transformationally related. But in this light consider also that the sentence (29) might also equally logically, be considered to be transformationally related to (7).

(29) I didn't like John's driving  $\begin{matrix} \text{(in this way)} \\ \text{(so)} \end{matrix}$

This pattern is semantically identical to (7). The possessive morpheme is present in the constituent by a process that is now well-established, namely, "poss-ing" complementation.

In other words, it seems to me that the logic that derives (7) from (8) could equally well apply to derive (7) from (29), with the syntactic advantage that the possessive morpheme need not be introduced by the complex mechanism Katz and Postal propose, but is already, so to speak, in the structure of the source. The theoretical consequence of this suggestion would be that Relativisation would no longer have to be considered as a necessary part of the process.

However, there is another reason for scepticism in connection with the nominalisation process posited in the "Integrated Theory". It is, so to speak, the "by-product" of certain work of Chomsky's on Nominalisations.

Chomsky's "Remarks on Nominalisation"<sup>13</sup>

Chomsky is concerned in this paper in the contrast in regard to syntactic properties between the Gerundive Nominal, represented by (30)

(30) John's refusing the offer

and what he terms the Derived Nominal, e.g. (31)

(31) John's refusal of the offer.

and whether the latter can be adequately analysed as being transformationally derived (as (30) almost certainly is) from a source sentence such as (32)

(32) John has refused the offer.

His conclusion is that the Derived Nominal is not a transform but must be directly generated by the rules of the Base. He avails himself of the following arguments and observations.

He remarks, firstly, that the productivity of the Derived Nominal is more restricted. That is, for all sentences there is a corresponding Gerundive Nominal, but only certain verbs have a corresponding Derived Nominal. Thus, from a sentence such as (33)

(33) John amused the children

there is a Gerundive Nominal

(34) John's amusing the children

but no corresponding Derived Nominal

(35) \* John's amusement of the children

The semantic relationships between the supposed source sentence and the Derived Nominal are quite varied and idiosyncratic. Thus, for example, a Derived Nominal such as laughter, can mean "the sign of mirth" or "the fact that this noise was made".

The Derived Nominal has the internal structure of a N.P., that is, it may be associated with a Determiner, an Adjective, and a Relative Clause.

(36) The humiliating defeat of Bill by Paul  
which was prophesied in the news-papers,  
never in fact occurred.

The Gerundive Nominal has none of these properties of the N.P. It cannot occur with a Determiner nor with an Adjective.

(37) \* The humiliating defeating John by Paul,  
prophesied by the news-papers, never in  
fact occurred.

"These are precisely the consequences that follow, without elaboration or qualification, from the assumption that gerundive nominalisations involves a grammatical transformation from an underlying sentence-like structure"<sup>14</sup>

whereas, in the case of the Derived Nominals, in which the

relationship to the assumed Base form is apparently hap-  
 hazard, both semantically and morphologically, a trans-  
 formational analysis would involve artifices that it

"..reduces the hypothesis that trans-  
 formations do not have semantic  
 content to near vacuity"<sup>15</sup>

### The Relationship of Derived Nominals to Manner Nominals.

The Manner Nominal, is in some sense, an in-  
 between form. It has certain of the morphological character-  
 istics of the Gerundive Nominal, but, I suspect, along with  
 Lees, Chomsky and others is nearer syntactically to the  
 Derived Nominal, and I shall try to show that ~~the~~  
 conclusion Chomsky reaches about the origin of the Derived  
 Nominal, should also by the same arguments apply to the  
 Manner Nominal.

Firstly, it is obvious that the Manner Nominal  
 corresponding to (30) also has the internal structure of  
 a Noun Phrase, and can occur with Adjectives and Determiners.

- (38) i. The refusing of the offer by John  
 ii. The bold and imaginative planning  
 of the development.

I think it is also true that the productivity of  
 the Manner Nominal is like-wise restricted, though I agree  
 with Chomsky that this Manner Nominal which he calls the  
 "Mixed Form" is often "resistant to systematic investigation",  
 nevertheless the productivity is restricted since we cannot

have

- (39) \* The feeling sad, \*+ the trying to win,  
\* the arguing about money

Chomsky concludes,

"It seems that the transformational hypothesis is correct for the gerundive nominals and the lexicalist hypothesis for the derived nominals, and perhaps, though much less clearly so for the mixed forms"16

In This Chapter I have attempted to give an outline of attempts to explain theoretically the properties of two types of de-adjectival adverbials, namely the Manner and Degree Adverbial. There have been two different types of theoretical formulation. The one which involves a disjunctive development of the category dominating the Adverbial, I have called Primitive Theory. The other, which is based on the "Doctrine of the Unique Source" that is the theory that assumes Manner and Degree Adverbials to arise, in all its surface forms from a Deep Structure Preposition Phrase, is termed here "Current Theory", since it appears to be the theoretical account that is prevalent today. I have tried to show the motivations for the "Unique Source" and have traced it back to the "Integrated Theory" of Katz and Postal. The arguments in favour might be divided into internal and external ones. I have <sup>shown</sup> the internal motivation for this analysis and shown how externally it is compatible with certain related theories, such as those concerning

the analysis of Interrogation, Simple Adverbials and the Theory of Functional Definition.

Finally, I have tried to show that the "internal" arguments in favour of the "Unique Source" are not inexpugnable, since alternative analyses, are as far as can be judged, equally compatible with the known facts. In this regard I have quoted Chomsky's account of Nominalisations.

What I have hoped to achieve in this Chapter is to indicate that although the Unique Source is perhaps a reasonable account of these adverbials, it is far from "cut and dried" and that the "Unique Source" is still open to empirical impeachment.

FOOTNOTES TO CHAPTER 1

1. In particular I refer to the theories proposed in "Syntactic Structures" (1957) and "Aspects of the Theory of Syntax" (1965)
2. Although I know of no study that has confined itself purely to the examination of either Manner or Degree Adverbials, the assumptions of the Katz and Postal analysis, have been widely, and perhaps universally accepted. This analysis, which I soon examine, is assumed to account for all Manner and Degree Adverbials. It is therefore Unitary, since no other source is permitted by the theory, for Manner and Degree Adverbials. It is quite 'well-defined' since we are given the source categories, though admittedly, the exact details of the conversion of a string -in-adj-way into adj+ly has never to my knowledge been made precise. Sentence Adverbials, have been the subject of certain studies, Ruwet (1968) and also Green Baum (1969). Their theories are not unitary, in that they foresee many diverse sources for the Sentence Adverbial, nor are they 'well-defined', since it is only the former who makes any real attempt at precise definition and he openly admits failure.
3. McKay's and Steinitz's arguments and conclusions are not identical but their conclusions co-incide on the fact that a) Adverbial "function" should be defined by configuration. McKay (J.C.) "Some Generative Rules for German Time Adverbials" (Language Vol. iv. No. 1 1968). Although not concerned at all with Manner Adverbials he deals with the theoretical nature of the relationship between the rules introducing the Adverbials and the definition of function.
4. Katz and Postal "Integrated Theory" pg. 137.
5. " " " " pg. 137.
6. " " " " pg. 138.
7. " " " " pg. 140.
8. Chomsky "Aspects" pg. 74.
9. Katz and Postal "Integrated Theory" pg. 132-135.

10. Katz and Postal "Integrated Theory" pg. 94

"..... the majority of Wh-Questions can be accounted for directly in terms of the association of Wh. with the Determiner constituent"

11. Koutsoudas.

12. N. Chomsky. "Remarks on Nominalisation", Unpublished  
DITTO MIT 1968.

13. " " " " "

14. " " " " "

15. " " " " "

16. " " " " "

## CHAPTER 2

### "CRITIQUE OF CURRENT THEORY"

The previous chapter has been devoted to an exegesis of the current theoretical attitude to Manner and Degree Adverbials. This attitude, I claim, has altered little since the "Doctrine of the Unique Source" was first expounded in the "Integrated Theory". The minor revisions that it has undergone, have mainly to do with changes in formalism in the Model such as those brought about to accommodate feature and selectional theory.

I have been at pains to emphasise how much Current Theory concerning Manner and Degree Adverbials is in accord with theories designed to account for other aspects of English syntax, and perhaps it is this more than anything else that can explain the fact that it has been so long unchallenged.

This present Chapter is concerned, on the other hand, with highlighting what I consider to be shortcomings in Current Theory. The criticisms I level are basically of two types. The first is more philosophical, or at least more general, and is a claim that Current Theory excludes syntactic phenomena that should be covered by its generalisations. The second type of criticism is more

'down-to-earth' and is an accusation that Current Theory is inadequate even within the range of facts over which it claims authority.

With regard to this first claim consider the sentences below.

- (1) John spoke disgustingly that day
- (2) Disgustingly, John spoke that day.
- (3) John spoke disgustingly badly that day.

All three sentences contain the same adverbial item. In all three it is marked with the suffix -LY, and in all cases it has the same root meaning, approximately equivalent to the paraphrase "capable of inspiring nausea". The similarity does not end here. For (1) and (3) there exists an interrogative form with how.

- (4) How did John speak that day?
- (5) How badly did John speak that day?

The above homophonous adverbials, although displaying the obvious difference of function share similar semantic and syntactic characteristics. It seems desirable therefore to analyse all three as being identical structures internally and account for their functional difference, i.e. the fact that disgustingly in (1) modifies speak, and in (2) the associated proposition, and in (3) the Manner adverb badly, by associating them with different places in the structure of the sentence. It will be recalled, that according to the theory of Functional Definition, function is defined really

by place in tree-structure.

Current Theory, however, posits for each of these three different (internal) Deep Structures.

(6) John spoke in a manner which was disgusting

(7) That John spoke was disgusting

(8) John spoke badly to a disgusting degree.

Implicit therefore in this analysis is the assumption that the fact that all three have the form (optionally for (6) and (8) ), adj+ly and (6) and (8) the interrogative form how is purely co-incident.

That is to say there are implied three separate rules to produce adj-ly forms and at least two separate rules to produce HOW.

It is my opinion that such an analysis fails to formalise the intuition of the native speaker, that these adverbials are very similar, that the processes of -ly attachment and How question-formation are the same in all cases.

Such is the analysis implicit in Lyons.

(1965) c (1968)

".. There appears to be no possibility of contrast in English between the adjective and the adverbs (cf. is a beautiful dancer; dances beautifully; is a good worker; works well) ... the obvious solution is to say that the adverbs are positional

variants of the corresponding adjectives (the allotment of the derivational suffix -LY being a matter of low-level transformational rules.) "

Lyons is suggesting that there is a category to which both adjectives and de-adjectival adverbs belong. This category can appear recursively, and depending on its position in structure is realised as adjective, Manner adverbial, Degree Adverbial, or Sentence adverbial.

"It may be employed as a predicate (a function) or as the modifier of a predicate (a function of a function)"

This Analysis proposed by Lyons clearly gives primacy in the structure to the Adjective, and more important still, considers that there should be generalisations which group together the Adjective, the Manner and the Degree adverbials (and presumably also the Sentence adverbial though it is never explicitly mentioned).

### External Criticism

The above criticisms might have to be dismissed as too "metaphysical" were it not for the fact that the present theory reveals certain deficiencies. These shortcomings seem to suggest that an analysis in which the adj+Ly construction is not made syntactically dependent on a supposed underlying prepositional phrase, may in fact be desirable.

Evidence that is suggestive, though by no means

conclusive, arises from a consideration of the interrogative form HOW. It will be recalled that an underlying "In wh+some way" according to Current Theory could be re-written as HOW in an interrogative sentence. The process, it is claimed would be in line with other adverbial 'spellings out', such as in wh+some place ---> where; at + some time → When etc. Now, whereas in these two cases the shorter form has the same distribution as the full Prepositional Phrase, a consideration of Manner and Degree adverbial shows that the distribution of HOW is not the same as the Prep-phrase and that it is not unreasonable to assume that HOW is the interrogative form of the adj+ly adverbial. Compare for example,

(9) How badly did John behave that day?

(10) To what extent did John behave badly  
that day?

The above sentences, would in the Current theory be considered to have the same Deep Structure. If the rule that converts in wh+some way into How is a re-writing rule, then presumably at the stage of the Transformation of Fronting they are structurally the same. Why is it therefore that both the Degree and Manner adverbial is fronted in (9) and only the Degree (prep. Phr.) in (10)?

The Fronting of a questioned element appears to function in the following manner. -- If an item is questioned

then the node that dominates it (and of course its dependencies) are fronted --.

A rule of approximately this power would account for the fact that the sentences below are ungrammatical.

(11) \* What did he arrive with a small?  
from a sentence such as

(12) He arrived with a small suit case.

(13) With a small what did he arrive?

If I am right about this rule then we can account for the difference between (9) and (10) in the following way. In (9) the Degree and Manner adverbials must be sisters (Fig. 1(a)) i.e. immediately dominated by the same node and in the case of (9) the structural relationship of the degree phrase to the Manner Adverbial must be less direct.

The structures represented in Fig. (1) would account for this difference in behaviour



Fig. (1)

Such an analysis involves the theoretical problem of whether an adjective may be questioned. Despite the fact that the conclusion reached by Katz and Postal was that only the Determiner constituent of the N.P., can be questioned,

I shall assume that the adjective can also be questioned. Such must be the case for languages like French and Spanish etc. Where we have an adjectival question form Comment? Como?

(14) Comment elle est? ---- Elle est belle

Now, I believe there is reason to correlate How with the adverbial of the Form adj+ly, because of the fact that the degree adverbial in -ly shows the same closeness of structure to the qualified Manner adverbial or Adjective as does How, whereas the Prep. Phrase form of the Degree adverbial reveals a less direct relationship.

Compare

(15) Extremely well he swam that day

(16) To a great extent he swam well that day

(17) \* To a great extent well he swam that day

We observe in the above that the Adj+ly Degree Adverbial involves fronting of the following Manner Adverbial whereas in (16) the Prep. Phrase Adverbial does not.

To summarise: I have argued that if How is related to In WH + some way in the same sense that when is related to at wh+some time then the conversion is performed by a "spelling out" rule. This rule is generally assumed to be a late rule. Consequently at the stage of the question-Fronting Transformation, they must be assumed to be structurally identical. However, under the Fronting Transformation their behaviour is NOT identical. Consequently this suggests that their structure might not be the same. Actually the behaviour of HOW correlates considerably

with that of the Adj+ly adverbial. They both appear to be structurally very close to the following adjective. This all suggests that perhaps the correct rule for introducing Manner Adverbials and Degree adverbials should be Disjunctive as in (18)

(18) Manner -----> ( Adj -Ly )  
 ( In -adj- way )

and Not, despite the economy involved, by a Prep. Phrase Base Structure which is transformationally converted into adj+ly.

Let us now consider some further evidence tending to show that the unique source for Manner Adverbials cannot be a Prepositional Phrase. This concerns a type of Manner adverbial of the form like + N.P. (I examine in the next section why such expressions must be considered to have the same function as other Manner adverbials).

In some way, that to my knowledge has never been made precise, Current Theory implies that these phrases must arise from deep structure prepositional phrases. Thus

(18) John played like a tiger

must have as source either of the following two paraphrases

(19) John played in the manner of a tiger

(20) John played in the manner in which a  
 tiger plays

If such is the analysis how do we account for (21) and (22)?

(21) John is like a tiger

(22) John looks like a tiger

In these cases, we also have like phrases, but this time in copular sentences, an environment from which the Manner Adverb is precluded. It seems to me overwhelmingly clear that in both cases we require the same analysis of the like-phrase. I believe there is reason to believe that like is an Adjective (I reserve the details of this argument till Chapter 7). If it is so then its appearance after a copular is no longer a problem, ergo it must be an Adjective in the sentences where it is traditionally interpreted as a Manner Phrase.

So, the conditions relevant to like phrases present the anomaly of appearing in copular sentences. I have suggested that these conditions of occurrence could be accounted for if we analysed like as an Adjective, since its function is clearly adjectival in the copular sentences. This implies that it is adjectival in the non-copular sentences. Such a conclusion, taken together with the observations we have made concerning the restrictions on the 'Degree' How, again makes increasingly reasonable the "Disjunctive" analysis, whereby an adjective is directly introduced as a daughter of the Verb Phrase category.

### The Scope of a Theory

The aspect of Current Theory with which we have been most concerned is the "Doctrine of the Unique Source" and its application to the analysis of Manner and Degree Adverbials. It was my contention above that, even if we granted that it was sufficient to account for Manner and Degree Adverbials of the form in-adj-way and adj+LY, a theory of De-adjectival Adverbials must account for the inter-relationship of these functionally different adverbials, as well as account for all other classes of Manner and Degree Adverbials which appear to fall outside the above pattern.

My conclusion was that Current Theory failed to account for the syntactic similarities, i.e. -LY suffix, how interrogatives, etc., in functionally different phenomena, and hinted that this was because it had insisted on categorical distinctions where only functional distinctions lay. This anomaly was well illustrated by its inadequacy to provide an unitary analysis for like phrases.

This leads us naturally to the questions

- a) For what phenomena should a theory of Manner or Degree Adverbials provide an analysis?
- b) By what criteria do we delimit these phenomena?

The answers are perhaps more easily given in the reverse order. Let us assume we know what a Manner or Degree Adverbial is, then I shall claim that the phenomena

over which the same generalisations should be made is delimited by the CRITERION OF CO-ORDINATION.

The Co-ordination Criterion.

In any work that purports to study the structures that play a certain functional role in a language it is of help to have some objective criterion for delimiting the set of phenomena to be generalised over. One such criterion for establishing the relationship "has the same function as" is that of co-ordination.<sup>1</sup>

It appears to be the case <sup>that</sup> elements performing the same function may be co-ordinated under certain conditions.

Two subjects

(23) John and Mary went home

Two D. Objects

(24) John ate the cake and the biscuit

Time Adverbials

(25) John ate at five and at six

Now it also appears to be the case that only items that are functionally the same may be so conjoined. Hence the ungrammaticality of (26)

(26)\* John ate at five and in the restaurant.

If this is indeed the case we are in possession of a very powerful test for establishing what elements are functionally the same.

What do we mean by Manner Adverbial?

Part of the criticism being levelled at previous, Katz and Postal School formulations is that it is designed to meet too narrow a range of phenomena. Let us begin ourselves rather informally, with a notional definition of the Manner Adverbial and from this let us narrow our focus.

Let us assume there to be a certain intuitive correctness in the traditional school definition of Manner Adverbial; as an Adverbial which answers to the question How?

Put more concretely what are the possible answers to the question

(27) How did John enter the room?

(28) John entered the room a) furious,

b) slowly

c) in a furious <sup>way</sup> manner  
fashion

d) with such fierceness  
that ...

e) in one bound

f) through the window

g) with a key

h) with his hands in  
his pockets

i) carrying a case in  
his hand

j) like a zombie.



those that have the syntactic shape

- i) Adj-ly
- ii) in adj Way
- iii) With adj+ness
- iv) Like + N.P.

To my knowledge most studies concerned with the Manner Adverbial have confined themselves to the first two of these phenomena. One of the claims made here is that no analysis of the Manner Adverbial is complete which does not account for all four forms.

We have now established by what appears to be a fairly reliable and objective procedure, the elements over which we wish to make generalisations. We shall subsequently examine the problems which this presents to Current Theory.

However, previous to taking this up, there is a more immediate problem, for which I consider Current theory has provided no adequate explanation.

#### Adjective Selection.

One of the insights of the theory which posits the unique source as deep structure Prepositional Phrase, according to Katz & Postal is that it accounts naturally for the fact that the Adjectives that may occur in Manner adverbials are precisely those that are selectionally compatible with the nouns Manner and Way. Thus, for example,

green does not produce an adverb greenly precisely because its selectional restrictions exclude it from the environment of the noun Manner etc. . They thereby imply that the source of the Adjective is an embedded relative copular sentence, since Adjectives arise as the predicates of embedded relative sentences.

I should like to challenge this claim on two grounds; since (1) it seems to me that many adjectives, (even in prepositional-phrase Manner Adverbials) cannot possibly arise as predicates of a manner type noun, and furthermore (2) I claim that there are Adi+ly adverbials in which it makes no sense to talk of them arising from prepositional phrases.

SUBJECT-SELECTED Vs. NATURAL MANNER ADVERBIALS

The sentence (31)

(31) John spoke furiously

must arise, according to Current theory from a sentence of the underlying form

(32) John spoke in a manner which was furious.

Such a source for furious is I think mistaken for the following reasons

i) There is no acceptable sentence

(33)<sup>\*</sup> This way (of speaking) is furious  
(to speak )

precisely because furious is selectionally limited to animate

nouns and words such as way and manner are in no sense animate.

ii) The adjective in this sentence is in fact predicated of the subject of the sentence and must agree with it selectionally. Thus (34) is unacceptable

(34) \* The key turned furiously in the lock.

If however, despite this it should be claimed that the adjective furiously does arise as the predicate of the manner word then we shall require of our grammar two sets of selectional restrictions. One set to exclude green from the environment of a Manner word and another set to exclude furiously from the environment of an inanimate subject. A considerable/degree of the claimed selectional simplicity is thereby being lost.

The adjective curious provides some insightful examples. It is an Adjective that may occur with either animate or inanimate nouns. It has two meanings, a. "Strange" and b. "inspired with curiosity". The latter sense is only possible predicated of an animate noun.

Consider now the sentence

(35) John looked in a curious manner at Peter.

The manner word cannot be at the same time animate and inanimate yet the sentence is liable to both the interpretations.

(36) a. John's manner was strange when he looked  
b. John was inspired with curiosity when he looked.

Current theory provides us with no explanation of this ambiguity.

Furthermore Current theory provides no explanation of why the adjective <sup>of the Adverbial</sup> in (31) refers to the subject of the sentence and in an example such as (37) below refers to manner word.

(37) John cooked the chicken in the French way.

Let us investigate a bit further this problem. Presumably the words way, manner, fashion which appear, according to previous descriptions as the head nouns underlying all Manner Adverbials, together with their pro form, i.e. the form which refers to the whole class of manner nouns, have similar selectional restrictions, restrictions which should correspond approximately to those of its near synonym "procedure". Now it happens to be the case that all these words are inanimate abstract nouns.

Thus the adjectives we should expect with these nouns are those that naturally may occur as predicates in the blank of (38) below.

(38) This (procedure) (eating )  
(way ) of (dancing ) is \_\_\_\_\_  
(manner ) (thinking)

According to this criterial slot the following adjectives may so appear.

(39) French, interesting, appropriate

but the following may not

(40) industrious, honest, amorous, sycophantic,  
intelligent, reluctant, trustful,  
ingenuous.

Let us adopt the term Natural adjectives for those of the former group and the term Subject-Selected for those of the second group.

Now it happens to be the case that both Natural and Subject-Selected adjectives may appear in expressions of Manner

(41) John played in an appropriate way

(42) John played in a sullen way.

### Adjective selection.

Firstly let us place<sup>a</sup>/caveat. It is certainly the case that certain adjectives may belong to both groups. In any tests used to distinguish these classes we must operate with items (in this case adjectives) which belong uniquely to one group. Thus when we next ask ourselves whether the Manner Adverbial with a natural adjective is the same unit as the adverbial with the unnatural adjective we must be careful to choose two adjectives that do not overlap classes.

### ABSENCE OF PREPOSITION PHRASE FOR CERTAIN MANNER ADVERBIALS

Part of our case against the doctrine of the

Unique Source, is based on the evidence provided by certain Manner Adverbials for which the form of Preposition Phrase appears not to be acceptable, and for which the adj+ly is perfectly grammatical. Consider the following examples

- (43) It snowed thickly that day
- (44) \*It snowed in a thick manner that day
- (45) John went quickly to the door
- (46) \*John went in a quick manner to the door
- (47) The photographs came out beautifully
- (48) \*The photographs came out in a beautiful manner
- (49) The centre-forward foraged deeply in the oppositions half.
- (50) \*The centre-forward foraged in a deep manner in the oppositions' half.
- (51) John followed the policeman closely
- (52) \*John followed the policeman in a close manner
- (53) John drank heavily
- (54) \*John drank in a heavy manner.

Certain characteristics of these adverbials are worth noting at this point since they will be of relevance later on when it is time to construct a theory to account for these adverbials

- i) The adverb is not normally preposable, without being extremely emphatic

(55) Thickly it snowed that day

(56) Heavily John drank.

ii) There is no with + N.P. paraphrase

(57) \*John drank with heaviness

(58) \*It snowed with thickness

### The case of Inanimate subjects

It appears to be an indisputable fact that sentences with inanimate subjects may also have Manner Adverbials. Such has been the assumption of all previous descriptions and there seems to be little motive for changing it. Thus (59) and (60) have generally been given the same syntactic analysis.

(59) John talked softly

(60) The bells rang softly

However, although (59) has the accepted paraphrase (61), if we attempt to construct a paraphrase (62) of (60) along the same lines its acceptability appears to be marginal.

(61) John talked in a soft way

(62) ? The bells rang out in a soft way.

Other examples with inanimate subjects seem no more felicitous

(63) ? The door swung in a strange way on its hinges

(64) ? The pencil wrote in a smooth way

(65) ? The vase fell in a noisy way onto the floor.

The evidence we are dealing with here is slightly clouded by metaphorical usage e.g. The door swung reluctantly open. . Yet we must account for the very dubious nature of prepositional adverbials with inanimate subjects. There is also another fact that demands analysis. No sentence with an inanimate subject appears to take a manner adverbial with With + N.P.

(66) \* The pencil wrote with smoothness.

Given the above facts, it at least seems difficult to maintain the claim that the prep. phrase adverbial underlies the -LY adverbial.

#### "With + N.P." Adverbials

The conclusion reached in the discussion on what constitutes a Manner adverbial was that "with + N.P." expressions must be accounted for by a theory of Manner Adverbials. Not only is this intuitively felt but also the set of nouns that may appear after "with" are cognates of the adjectives with manner nouns, though apparently a subset of the latter. That is to say that although we have a pair (67)

- (67) a. John spoke in a precise manner  
b. John spoke with preciseness

the a. form of (68) is unacceptable

- (68) a. John cooked the chicken in the French way

- b. <sup>x</sup>John cooked the chicken with Frenchness.

Incidentally this appears to provide further justification for the distinction Subject-Selected Vs. Natural adverbials, since all Subject-Selected (Personal) adverbials have a with + N.P. Paraphrase and it may be the case that the adjective cognates are all Subject-Selected.

One feels that Current theory would require that these too arise from D.S. Prepositional Phrases. If we can show that these cannot possibly be derived transformationally from Prepositional Phrases of the form in-Adj-Way, then the case for a unique source is destroyed with a consequent weakening in the case for deriving other Manner Adverbials from the Prepositional Phrase. The with + N.P. adverbials, we have said above, provide a Semantic paraphrase of all the Manner Adverbials in which the adjective is chosen to accord selectionally with the subject of the sentence

(69) John played furiously,

(70) John played with fury.

The Doctrine of the Unique Source must assume, since the adverbial elements are functionally the same in (69) and (70) that they are both transforms of underlying Prepositional Phrases. Now this implies necessarily that fury is not a noun but a nominalisation (because the selectional restrictions on the noun are the same as those

on the verb i.e. \* with greenness is excluded, and these selectional restrictions are expressed in terms of adj-noun restrictions).

Consider then what, by this logic, must be the source of (71)

(71) John played with all the fury he had held pent up within himself for so long.

it must of necessity be

(72) \* John played in the furious manner which he had held pent up within himself for so long.

The fact that (72) is nonsense is, I think, a greater indictment of the theory than that it is merely ungrammatical. There have been many cases of underlying sentences being ungrammatical but none to my knowledge, in which the underlying sentence is anomalous.

Besides, it seems to me that fury belongs to the class of nominals that Chomsky has called derived and for which he argues against relating it transformationally to an underlying sentence.<sup>2</sup>

### Restrictions on Recursion

Recursion within a Generative Transformational grammar is basically brought about in two ways, co-ordinatively and subordinatively. As instances of the first type we may cite sentence co-ordination.

(73) John went to Spain and Mary went to Brazil.

(74) John worked slowly but steadfastly.

The characteristic of this type is that the elements conjoined are structurally equal. That is to say that neither is dominated by a category which is a sub-category of the other.

In the case of subordinative recursion, on the other hand, a category corresponding to a certain function is re-introduced into the structural of a similar category configuration and is expanded in a second or subsequent cycle of the P.S. rules.

Thus, for example, relative clauses are infinitely subordinatively recursive, since the category S is re-introduced into the structural configuration of a Relative Clause and its expansion is carried out by subsequent cyclic application of the P.S. rules.

(75) The man killed the cat that ate the rat  
that lived in the house.

The matter of Recursion has certain heuristic application. The only type of subordinative recursion that appears to be well founded is that which is brought about by a re-introduction of the category S. Thus, for example, in Time adverbials in a part-whole relationship as in (76)

(76) at that time on that day in that year etc.  
where we have a recursive sequence of Time adverbials; McKay<sup>3</sup>  
has argued that these must be introduced from tokens of S

realised by copular sentences, i.e.

(77) at that time which was on that day which  
was in that year.

If this theory concerning recursion is correct then it of necessity implies that any theoretically infinite subordinative recursion must be produced via the repeated introduction of the category symbol S.

Now, as has been stated repeatedly above, Current Theory considers that Manner Adverbials are immediately dominated by the category Prep. Phrase which itself is immediately dominated by the V.P.

(78) V.P.  $\rightarrow$  Verb - (Prep. Phrase)

Such a rule implies that the only type of recursion possible for Manner Adverbials is of the coordinative variety.

(79) John spoke carefully and slowly

Now, if it is the case that a sentence of Surface Structure contains more than one Manner Adverbial, and where these Manner adverbials are not co-ordinate, then it can be shown that Current theory is wrong. Such sentences, I claim, are (80) and (81)

(80) John drives fast excitedly

(81) Mary cooks in the French way rather well.

A possible counter argument to the above is that ~~the above~~ only proves that the category Manner is introduced as an expansion of two (and not one) categories

of the Base, say, of the Predicate Phrase and of the Verb Phrase.

However, it appears that these structures may be expended still further.

(82) John drives fast dangerously consistently.

I must confess that it is difficult to find convincing examples above this limit, but I feel this to be a limitation on performance, similar to those discussed in Chomsky (1965).

#### SUMMARY OF CHAPTER 2

I have suggested that any intuitions we may have about the excessive narrowness of the Current formulations of de-adjectival adverbial theories are borne out by observations relating to the syntactic properties of How and Like. Also by considering Manner and Degree adverbials as arising from a unique source, the Prepositional Phrase on the one hand and Sentence Adverbials to arise from Adjectives on the other Current theory implies that there is not only a functional difference between the two due to difference in structural position (as between subject and object N.P.) but also a categorial difference, namely the difference between Prep. Phrase and Adjective.

As counter evidence to the latter claim I have suggested that there are instances of Manner adverbials in the form Adj+LY for which there are no acceptable forms as

Prep. Phrases and also that many instances of the Adjectives occurring with Prep. Phrase Adverbials cannot be analysed as arising from a relative sentence based on the manner noun. In short, I find Current theory inadequate for explicating either of the above cases.

Furthermore, even at the level of Manner adverbials, Current Theory must also account for Manner adverbials which have other forms, such as like+N.P. phrases and with + N.P. . I have claimed that Current theory is incapable of accounting for all these in any unitary fashion.

Finally, I have observed that a sentence can have more than one Manner Adverbial. If this is so, this must be considered a further deficiency of the theory as presently formulated.

FOOTNOTES TO CHAPTER 2

1. In "Syntactic Structures" Chomsky first defined the Co-ordination Transformation as one which conjoined two constituents of the "same type" and which occurred in the same position in structure in their respective sentences.

"If  $S_1$  and  $S_2$  are grammatical sentences, and  $S_1$  differs from  $S_2$  only in that  $X$  appears in  $S_1$  where  $Y$  appears in  $S_2$  (i.e.  $S_1 = \dots X \dots$  and  $S_2 = \dots Y \dots$ ) and  $X$  and  $Y$  are constituents of the same type in  $S_1$  and  $S_2$ , respectively, then  $S_3$  is a sentence, where  $S_3$  is the result of replacing  $X$  by  $X+$  and  $+Y$  in  $S_1$  (i.e.  $S_3 = \dots X+ \text{ and } +Y \dots$ )

Now, if as was later suggested in "Aspects" categories of the same type and in the same place in structure, perform the same syntactic function, then the logical entailment is that potential for co-ordination of any two categories defines them as being "functionally identical".

This is expressed by R. Steinitz (1969) as a practical heuristic device.

"Adverbiale gleicher Subklasse können demnach Koordinative Beziehungen aber nicht nebenordenende eingehen ..... Adverbiale verschiedenen Subklassen können nebenordenende aber nicht koordinative Beziehungen eingehen.."

2. N. Chomsky "Remarks on Nominalisation".
3. McKay (J.C.) "Some Generative Rules for German Time Adverbials" Language 44.

### CHAPTER 3

In the previous chapter I have tried to point out certain inadequacies in the theory of Manner and Degree adverbials as currently formulated. I have claimed

i) That the theory confines itself to too narrow a range of phenomena, leaving aside items that require a unitary treatment with Manner and Degree Adverbials, e.g. like phrases, and with+N.P. Adverbials.

ii) Current theory was not capable of accounting for all the syntactic properties, even within the confines of the structures adj+ly in-adj-way. For example it failed to explain recursion of these adverbials, or the fact that there were adverbials of one structure that could not be converted to the other structure, e.g. in an adult way -> <sup>x</sup>adultly

iii) It failed to account for the fact that certain Manner Adverbials were selectionally dependent on the Deep Structure Subject of the Sentence.

The present chapter is concerned with exploring ways of remedying these "mechanical" defects, preferably in such a way as to give a common analysis to all tokens of de-adjectival adverbials.

The Distinction Subject-Selected V. Natural Adverbial.

To begin with let us consider how we may account for the distinction between Subject-selected and Natural Adverbials.

In any adequate description of the Manner adverbial it seems to me that some account must be given of the relationship between the following two types of sentences

- (1) John played tennis cleverly.  
 (2) John was clever at playing tennis.

If deep structure is in fact a representation of the syntactic relationships, then, except in a trivial surface structure sense, it appears that the probabilities are high that the relationships that hold for the one are valid for the other. Certainly this would appear to be at least a good working hypothesis. What is of particular interest here is which of the two may be said to be more basic.

Consider the structure of (1) represented by Fig.(1) and that of (2) by Fig.(2).

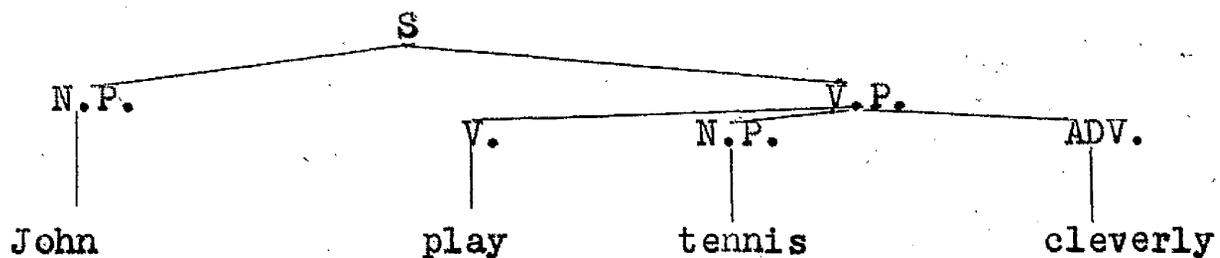


Fig. (1)

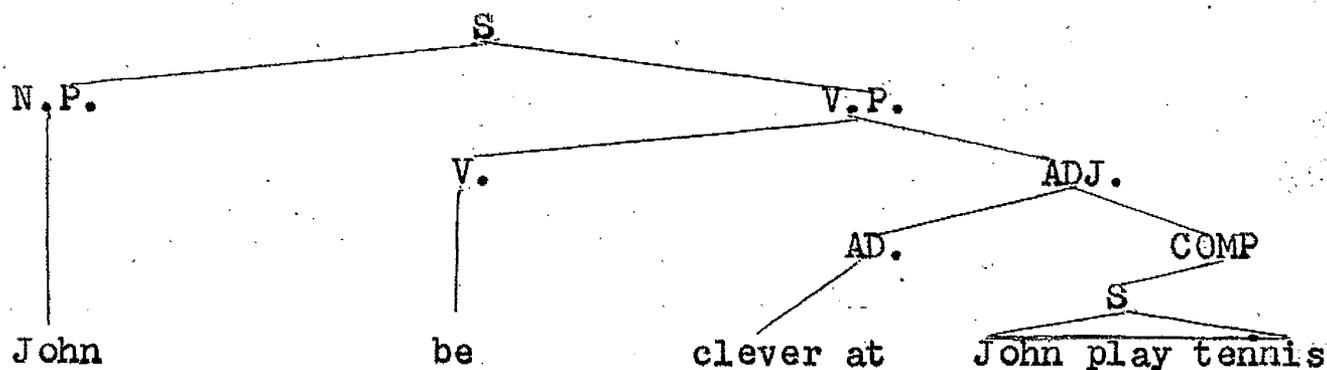


Fig. (2)

The question is rightly asked if (1) and (2) are transformationally related which of the two may be said to underlie the other.

If (1) is more basic then we must assume that the Grammar contains at least the following processes

- a) a permutation transformation which moves the adj. from the right of the V.P. and adjoins it to the left of the verb, to give
 

(3) \* John clever play tennis
- b) Some mechanism for the insertion of BE, to give
 

(4) John be clever play(ing) tennis.

Although there may be some precedent for a transformation of the power of b), it seems to me that a) would be absolutely ad hoc.

If however, we assume (2) to underlie (1) then the Grammar must have at its disposal the following mechanisms.

- a) A transformation that deletes the second token of John, leaving

(5) John be clever (at) play(ing) tennis.

- b) A transformation that takes the V.P. of the embedded Sentence and substitutes it for the node occupied by BE.

At first sight there may seem little to choose between these two analyses on the grounds of simplicity, but I shall claim that the former of these alternatives is ad hoc, and even impossible from what we know of the power of Transformations and derived structure, and that at least for the second both processes are independently required in the grammar. Thus for example the transformation that deletes the second token of identical N.P. in a complement is wellknown under the name of "Equi-Noun Phrase Deletion", and is that which converts

(6) John wanted for John to go

into

(7) John wanted to go.

I shall now argue that a Transformation of approximately the power of b) that is, one that raises the V.P. of an embedded sentence, must also be present in the grammar of English. The syntactic facts that appear to support this assumption are those relating to adverbial expressions such as first and last. Consider, for example (8)

(8) John spoke first

This sentence is ambiguous in its present form, between

interpretations (9) and (10).

(9) John spoke first and then sat down

(10) John spoke first and Peter spoke second.

The former appears to be relatable to (11)

(11) The first thing that John did was to speak  
and the latter to

(12) John was the first (one) to speak.

I shall assume that (8) and (12) are transformationally related, since we can reasonably claim that this is a case of structural ambiguity as opposed to lexical ambiguity. In other words, the problem is more related to the distinction between the meanings of

(13) Flying planes can be dangerous  
than to the ambiguity of the

(14) The pig is in the pen  
in which the word pen, is according to Bar Hillel<sup>1</sup> ambiguous between the readings a) "an enclosure for animals" b) an instrument for writing. In French, moreover, the structural relationship between (8) and (12) is more clearly expressed.

(15) Jean a chanté le premier

(16) Jean a été le premier à chanter

There seems to be little doubt therefore that the

underlying structure must be approximately that of Fig. (3)

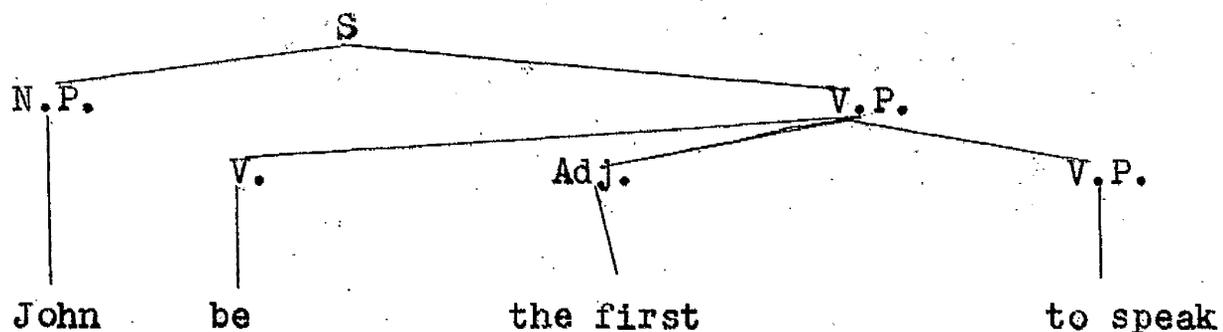


Fig. (3)

### The Verb Phrase Promotion Transformation

This transformation should have the power to take the (encircled) lower V.P. of Fig.(3), and raise it to the position of the V node (in square), thereby substituting for it, to give the derived structure of Fig. (4).

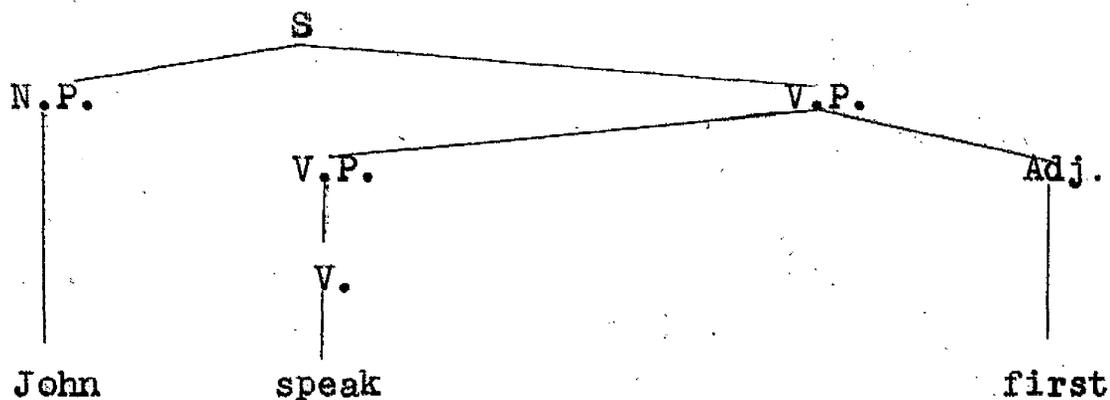


Fig. (4)

We could define this transformation more formally as



unreasonable assumption. Now, if there is<sup>a</sup> process that converts (20)ii. into (20)i., it will have the effect of changing the structure of Fig. (5)(A) into that of Fig. (5)(B).

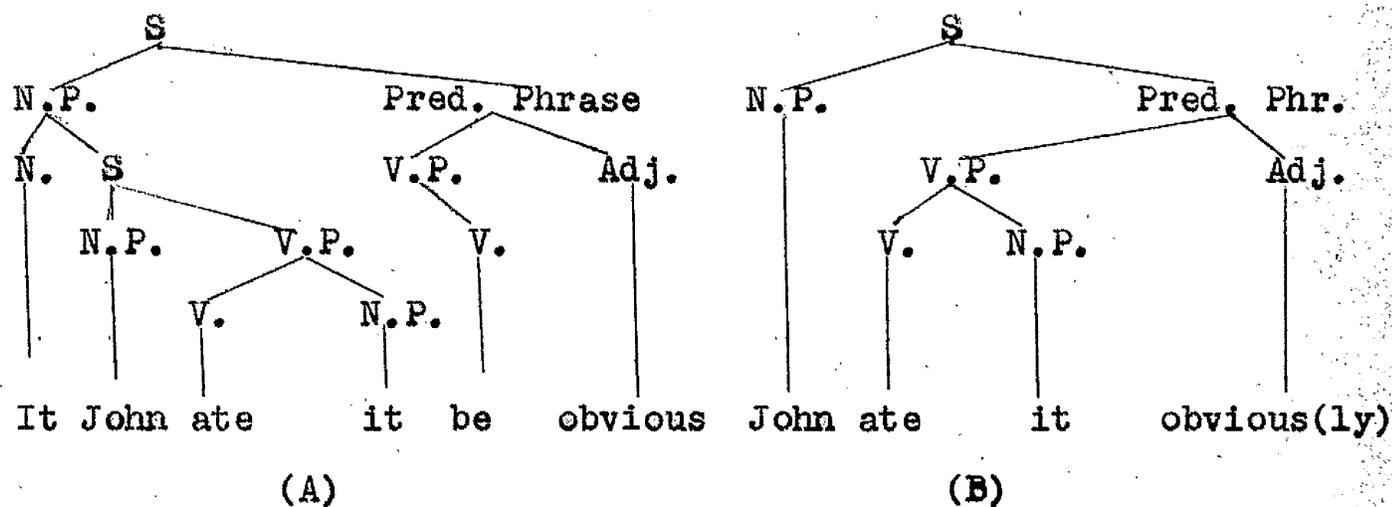


Fig. (5)

To posit a V.P. Transformation seems to me the simplest way of bringing about this transformed structure. This is a particularly attractive solution since we already have some idea about a transformation that will place the John of the lower N.P. immediately under the upper Noun category. I am referring to the process termed "IT Substitution". It will be recalled that this is the rule which converts an underlying (21)i. into (21)ii.

(21) i. It was said by Mary that John was a fool

ii. John was said to be a fool by Mary.

Chomsky in fact discusses a similar transformation in his "Remarks on Nominalisation" (1969). Here the transformation "replaces the unspecified predicate by the whole V.P." The transformation Chomsky discusses differs from my V.P. Promotion in that it attaches the lower V.P. not to the BE node but to a node under V.P.

My intention has been to show that a transformation that raises a lower V.P. into an upper copular sentence is not at all ad hoc but can be shown to be required for a variety of phenomena in English.

What is a matter of interesting speculation is whether the V.P. Promotion required for Subject Selected Manner Adverbials can be so formulated to account for Sentence Adverbials as well. This involves certain formal difficulties with which I shall not concern myself here. I will simply recall to memory the fact according to R. Lakoff the transformation previously mentioned of "IT Substitution" was unique in that it required a double Structural Description (See R. Lakoff 1968 pgs. 33-4). This could perhaps provide another instance of this unique phenomenon.

#### Possible Sources for the Manner Adverbial.

So far I have claimed that the transformations that would be required to produce (1) from (2) are more

motivated than the transformations needed to give (2) from (1). I shall now argue that, even if there were transformations to convert

(1) John plays tennis cleverly

into

(2) John is clever at playing tennis

these transformations could not yield the correct derived structure (i.e. provided of course that our assumptions of the structures underlying these sentences is correct as well/ those concerning the power of transformation rules).

The rule required would be one that takes the adjective (of the Manner adverbial) and places it at some position before the verb to yield

(22) John clever play tennis

There are two possibilities for the structural attachment of clever

a) It is "Chomsky-adjoined" to the node S (or even perhaps predicate phrase, if such is our analysis) or

b) It is sister adjoined to the node Verb.

These two possibilities are represented in Fig. (6) below

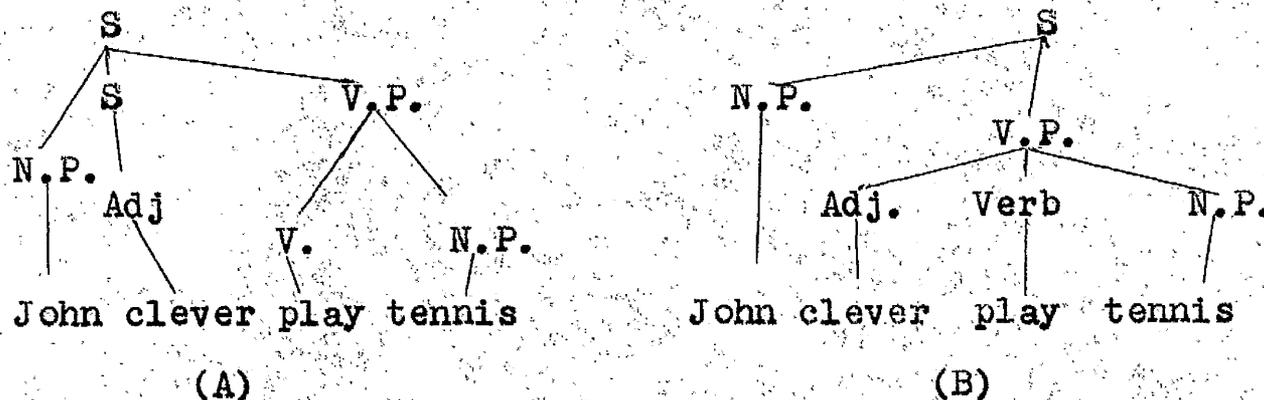


Fig. (6).

### Possible Sources for the Manner Adverbial

Now both of these derived structures are obviously wrong. In the case of Fig.(6)A., the structure does not express the fact that clever at playing tennis is a constituent. The structure in B., fails to state that, (although it is a constituent), that what follows the adjective clever is demonstrably a N.P., and obviously of the N.P. complement type.

For example we can say

(23) John is clever at it.

(24) John is clever at what his father is  
clever at.

These facts can only be accounted for by a structure as in Fig. (7).

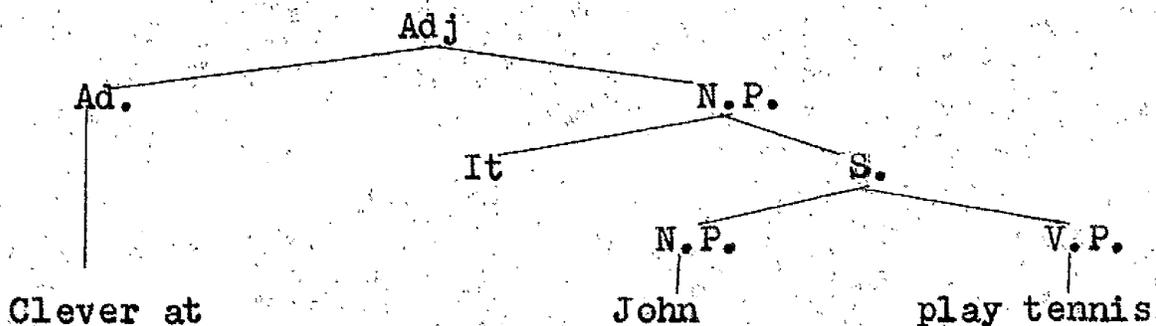


Fig. (7).

Thus far, the discussion concerning the suitability of the above analysis have been mechanistic and unconcerned with the consequences which its assumption would entail. Now, if we assume that not only does (1)

underlie (2) but that its structure represents the D.S. source structure for Manner adverbials what are the consequences that follow?

Some of them I think are rather enlightening and provide strong motivation for this analysis.

a) We can now account for certain problems of Adjective selection, discussed in the previous chapter

b) We can account for Recursion

c) "Like phrases" may be analysed in a way so as to reconcile its "Manner" usage with its use in copular sentences.

#### Solution to the Problem of Adjective Selection.

The distinction between Subject-Selected and Natural is one of adjective selection. As has been repeatedly stated, Natural adverbials are those in which the adjective is selectionally comparable with the Manner word (e.g. French in "in the french way"). The Subject-Selected Adverbial accords selectionally with the subject (e.g. depressed <sup>in</sup> in a depressed manner)

If, as we have just suggested, Subject-Selected adverbials arise from copular sentences, then at least certain problems are thereby solved. Thus for example in (25)

(25) Colorless green ideas sleep furiously

The incompatibility (rather one of them) is due to the fact





Thus, after equi-N.P. deletion we obtain the perfectly acceptable sentence

(31) John is good at being consistent at being safe at being reckless at driving.

In the preceding section I have argued that for sentences with Subject-selected Manner Adverbials there corresponds a paraphrase of the form (32)

(32) N.P. - BE - Adj-AT-V.P.

1        2        3    4    5    where 3 is the Subject-selected adjective

I have claimed that to derive sentences with Subject-selected adverbials from such a source is feasible, since the required processes can be shown to be available in English but such an analysis also has the advantage of giving a natural account of the selectional restrictions holding between the subject and these adverbials as well as for the relationship of paraphrase of (1) and (2).

There is however one great difficulty. This analysis seems possible for only one type of adjective, specifically for a type which I shall call "Role" adjectives, as those of (33)

(33) John was cunning at playing tennis ruthless

These adjectives appear semantically to denote some constituent quality of the personality. The others which are here called "Mood" Adverbials, describe a temporary

state, and cannot occur with the same type of complement.

(34)\* John was furious at playing tennis  
nervous  
pensive  
desperate

Yet the examples of (35) appear to be acceptable when the at complementiser is not present.

(35) John was furious playing tennis  
nervous  
pensive  
desperate.

Now it might be supposed that (35) are in fact sentences with Temporal Clauses in which the temporal conjunction has been deleted, that underlying them are forms such as

(36) John was furious when playing tennis

This is of course possible. However I myself feel that a sentence such as (35) is structurally ambiguous between a temporal interpretation such as (36) and an interpretation in which the embedded sentence is a complement of the adjective. In other words I feel a potential distinction between

(37) nervous when playing tennis

(38) nervous playing tennis.

Decisive evidence is difficult to find. Consider however, that the "Role" adjectives may also occur without the complementiser at

(39) John was cunning playing tennis  
ruthless  
clever.

and it also seems to me that this construction is more acceptable when the action is not habitual, as for example when the sentence contains a Time Adverbial implying that the action occurred only once.

(40) John was cunning playing tennis yesterday

(41) ? John was cunning at playing tennis  
yesterday

The at complementiser therefore seems to me to be associated with "Habitual aspect". Observe also that Role Adjectives do not associate naturally with temporal clauses

(42) ? John was clever when playing tennis  
yesterday.

These facts provide some evidence in favour of a complement interpretation of the structure of (36).

I am forced to admit therefore, that although an analysis of the kind I am advocating for Subject-selected Manner adverbials, in which the Adjective is introduced from an upper copular sentence is motivated and has the overwhelmingly desirable consequence of accounting for selectional restrictions between Subject and Adverb, the exact nature of the relationship between the Copular and the embedded sentence is in some doubt. The embedded sentence might turn out to be either a Time clause or a complement of the Adjective or in fact possibly a Time clause in the case of Mood Adverbials such as as furious and a Noun Phrase Sentential complement in the case of Role Adjectives, such as clever.



(47) Angrily, John stalked out of the room.

Observe that these can be distinguished from the similar Manner Adverbials by the following criteria.

a) These are not acceptable with Degree Modification

(48)\* Extremely angrily, John strode out of the room.

b) The Manner Adverbial becomes very emphatic when pre-posed.

(49) Cleverly John played that day and the next.

c) The Sentence Adverbial is normally followed by a comma pause.

Subject-Selected Sentence Adverbials will be discussed in Chapter 5.

#### THE WITH +N.P. MANNER ADVERBIALS

The hypothesis that I have just postulated to account for Subject-Selected Manner Adverbials must also be extendable to cover With+N.P. Adverbials, all of which I believe to be Subject-Selected. This will involve us in a rather novel analysis of predicates, since, as I have argued above, the N.P. of these Adverbials cannot be analysed as necessarily arising from an Adjective by transformation.

Firstly let us observe that in fact in sentences such as

(50) John spoke with fury

the noun is obviously selectionally in accord with the animate subject John. My claim is that no With +N.P. Manner Adverbial can occur with an inanimate N.P. Subject.<sup>2</sup>

(51) \* The stone fell with slowness into the pool

(52) \* The arrow hit the target with great accuracy.

Now, I have supposed that Subject-Selected Manner Adverbials arise from an upper copular sentence. The source therefore of the paraphrase of (50) with an Adjective would be

(53) John was furious speaking

where "furious speaking" is a constituent. In order that the analysis of "With+N.P." Adverbials should be consistent these too should be derived from a similar structure.

Perhaps that of (54)

(54) \* John was with fury speaking.

The arguments against such an analysis are the following.

- a) It is purely ad hoc to claim that the grammar must produce a With+N.P. Predicate, and
- b) selectional restrictions are not normally considered to hold between a Subject and a N.P. Predicate. In reply to the first of these objections it could be claimed that the preposition with, is a meaningless relator, in other words there is possibility of any other preposition occurring in its environment, when it is used as a Manner Adverbial. It is

therefore in all probability not present in Deep Structure. The implication of this latter supposition is that the Grammar produces underlying sentence of the form

(55)\* John is fury speaking

Before dealing with the problems this raises let us consider the second possible objection, namely that selectional restrictions do not hold between the Subject of a copular sentence and a predicate N.P. This is patently not the case.

(56)\* This stone is a soldier.

(57)\* The prime minister is a radio.

Consider also, the following set of Nominal modifiers of the subject.

(58) A man of such intelligence shouldn't make a mistake.

(59) Most women of beauty are naturally vain.

There are, between the nominal modifier and the modified N.P., certain definite selectional restrictions, restrictions which characterise (60) as ungrammatical.

(60)\* Any stone of such intelligence should split on touching him.

Now, under certain conditions these modifiers of the shape of+N.P. also occur as predicates.

(61) Her look was of such intensity that no one could withstand her

(62) Mary was of such beauty that everyone would stare at her.

In other words, although expressions such as these are not too frequent in English, there is no doubt that they are sufficiently productive to require that the grammar possess the mechanism of placing an abstract N.P. as the predicate of a copular sentence. The fact that we do not get in English the following sentences

(63)\* A Chinese boy is always of patience

(64)\* The man of anger hit his opponent on the nose.

taken together with the fact that we do get those of (61) and (62) is only explainable it seems to me in terms of output constraints, to the effect that "OF+N.P." Modifier does not form an acceptable surface structure in cases where it is

a) The attributive qualifier of an N.P. with a Definite Determiner i.e. a man of intelligence but not \* the man of intelligence,

b) The predicate qualifier but without itself being qualified. i.e. This matter is of great delicacy,  
\* This matter is of delicacy.

Nothing but a purely ad hoc transformation would perform the function of excluding the ungrammatical forms of (63) (64) yet permit the grammatical (61)-(62). My conclusion is therefore that there must be in the grammar a process that produces \*of+N.P." in predicate position.

Like with in the Manner Adverbials being discussed,

the preposition of in these adjectival Nominal expressions is contextually conditioned. There is no possibility of any other preposition occurring meaningfully in this environment. We might therefore propose that the Base Rules produce strings of the form

(65) N.P.-BE-N.P. -V.P. (i.e. John is fury-V.P.)  
+Abstr.

which is obligatorily converted into (66) if condition a) and b) above pertain

(66) N.P.-V. -N.P.  
+ Abstr.

Lower rules would insert of in case the N.P. qualified  
+abstr

a N.P. and with in case it had the derived structure of an Adverbial.

Preposition alternation like of  $\leftrightarrow$  with is certainly not unusual in English. Compare this for example with the change of preposition when Time adverbials are re-ordered,

(67) On the fourth day of May of 1946.

(68) In 1946, in May, on the fourth day.

The argument for my analysis of "With+N.P."

Adverbials is therefore the following.

a) It is desirable to account for adj+ly and with+N.P. Adverbials by the same process.

b) This cannot necessarily be done by transformationally deriving the N.P. from the Adjective.

c) There is evidence that Nominals are produced by the Base Rules in predicate position, with identical selectional restrictions operating as between subject and adjectival predicate. I have already concluded that these Adjectives can occur post-verbally, through the V.P. Promotion Transformation. If the same transformation is made to apply (perhaps obligatorily) in most cases in which the predicate is an abstract nominal, we can use the same mechanism to account for Nominal Manner Adverbials which are Subject-Selected, since the Preposition can be shown to be environmentally conditions. Interestingly enough, this is in accord with a principle recently postulated by Chomsky

"..that a great many items appear in the lexicon with fixed selectional and strict-subcategorisation features, but with a choice as to the features associated with the lexical categories, noun, verb, adjective."<sup>3</sup>

#### Properties of With+N.P. Adverbials

As it was sufficient to prove that "With fury" was a manner adverbial expression and that it could not be derived transformationally from either the adjective+ly or the prepositional phrase in-adj-way, in order to refute the "unique source" theory, I may have suggested that it is always the case that with+N.P. adverbials are not transformationally derived. This suggestion, though it may turn out to be true, is not completely tenable in our present

state of knowledge, for an examination of the properties of the nominals with the suffix in -ness, suggest the possibility of a transformational source.

Firstly, observe that the derivation from adjective to nominal via the suffixation of -ness. That is for every Adjective there appears to be a nominal of this sort. One may discover possible exceptions, E.g. ?reticentness. I believe that these exceptions occur only in a cultured "Register", in which stylistically the irregular nominal may be preferred.

Secondly, the semantic range of -ness nouns, is more restricted. It corresponds exactly to a paraphrase Be+adj. Thus

(69) John's angriness = (John's being angry at a particular moment)

(70) John's anger (can mean, John's propensity to anger)

This characteristic is highlighted by the syntactic restriction.

(71) John is a man of anger

(72)\* John is a man of angriness.

Interestingly enough, this contrast is most observable in the "Mood-adj-nominals".

Thirdly, another difference between the -ness nominals and the irregular nominals must be underlined. Whereas the irregular nominal e.g. fury is subject to all

the expansions of the P.S. component relevant to a nominal phrase, this does not appear to be the case for the -ness nominal.

(73) John spoke with all the fury that for generations the British had inspired in the Hettentot.

(74 ? John spoke with all the furiousness which for generations the British had inspired in the Hottentot.

It will be recalled, that as early as Lees (1957) -ness nominals were considered to be transformationally derived. In this case I tend to agree with Lees in supposing that its source is a sentence of the form

(75) Subject-BE-Adj.

If this is the case then it may shed light on the process of adverbialisation. So if the P.S. rules of the Grammar generates

(76) John was angry playing tennis

and we know that there is a stage that converts this into

(77) John's angriness playing tennis

in case it is a N.P. Now in the case that it is not a N.P. then V.P. promotion occurs to yield,

(78) John play tennis with angriness.

Compare now the derivations of the following two sentences.

(79) John spoke with angriness

(80) John spoke with anger

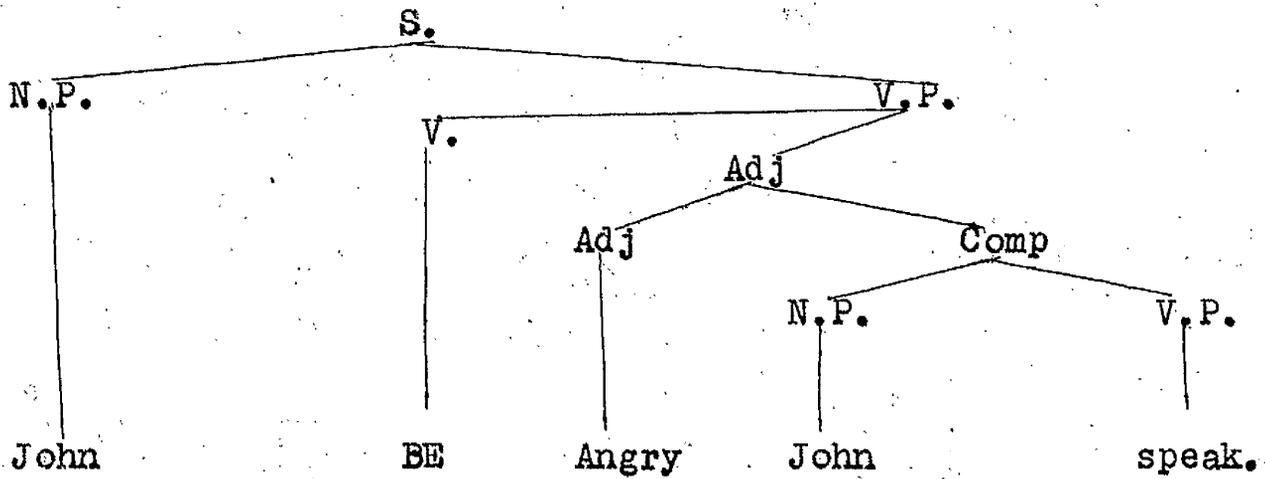


Fig. (9)

This undergoes

a) Equi-N.P. Deletion

(81) John was angry speak(ing)

b) Nominalisation

(82) John with angriness speak

c) Verb promotion

(83) John speak with angriness.

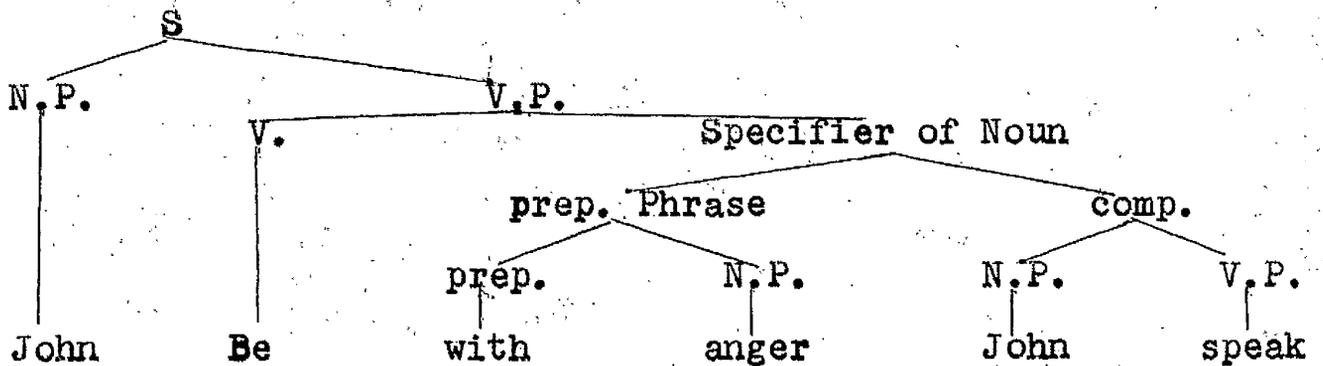


Fig. (10)

Equi-N.P. deletion

- (84) John was (of anger speaking  
(with

Verb promotion

- (85) John speaks with anger.

When we contrast the two derivations we should observe that/ Fig. (10) the Noun anger is in the D.S., and hence we can explain the fact that it is subject to all the P.S. rules related to N.P., e.g. relativisation

- (86) John spoke with an anger that welled up inside him.

- (87) \* John spoke with an angriness that welled up inside him.

Adjective-qualification:

- (88) John spoke with uncontrollable anger

- (89) \* John spoke with uncontrollable angriness

NATURAL ADVERBIALS

The term "Natural Adverbial" was originated in order to refer to the set of Adverbials which displayed no selectional dependency on the subject of the sentence. Both adverbials of (90) are therefore "Natural".

- (90) slowly, in a slow manner

The "Natural Adverbial" is therefore inanimate, and can be reasonably analysed as arising from the adjective qualifying a Manner Noun. This, it will be recalled, is the source

accorded by Current Theory to all Manner Adverbials. The fact that <sup>it</sup> is apparently in accord with Current Theory does not of itself entail correctness of this analysis. Certain evidence, some of which I have already cited, seems to me to best accounted for, if we assume that there is not a process that converts a Prep. Phrase Adverbial into an adj+LY one, but rather that the choice is made between these categories in the Base Rules. For example there were adj+LY Adverbials for which there were no Prep. Phrase forms. (Sleep deeply, \* sleep in a deep manner), and Prep. Phrase Adverbials which were not converted into adj+ly forms. (in an adult manner \* adultly).

Certain other correlations were observed which appeared to support the validity of this distinction. Only Subject-Selected Adverbials had the paraphrase of the structure with + N.P.

One might propose therefore that Natural Adverbials are actually in the Base Structure in the post verbal position in which they normally occur by the very rules of the Base, as expressed by (91)

$$(91) \text{ V.P. } \text{-----} \rightarrow \text{V. (N.P.)} \cdot \left\{ \begin{array}{l} \text{Prep. Phrase} \\ \text{Adj.} \end{array} \right\}$$

The Natural Adverbial is developed in this formulation either as a Preposition Phrase or as an Adjective. By this means, one automatically disposes of the rather unconvincing conversion process that was supposed to convert

the former structure into the latter. Both forms of (90) are therefore generated without transformational dependence or priority.

The Natural Adverbial as I shall try to show in the following chapter is selectionally dependent only on the verb.

#### A FURTHER PIECE OF EVIDENCE

I have proposed the following two revisions in the analysis of Manner Adverbials.

A. That Subject-Selected adverbials should be considered as arising from an upper copular sentence, so that

(92) John was clever playing tennis  
would yield

(93) John played tennis cleverly

and B. That Natural Manner adverbials have in fact arisen from adjectives directly predicated of the verb (as in Primitive Theory) in consequence

(94) John walks fast  
is in deep structure a single simple sentence and (93) is the result of two tokens of S.

This assumption has consequences that I think are open to testing. Given the above, it should be possible for (95) to underlie an acceptable sentence (96) with two uncoordinated Manner Adverbials.

(95) John was clever at playing tennis fast

(96) John played fast cleverly

Another consequence is that there should be no sentence with a Natural adverb as the outer one, because there is no sentence (97 )

(97)\* John is fast at playing cleverly

there should be no acceptable sentence

(98)\* John plays cleverly fast.

Yet another implication is that although sentence (96 ) is grammatical with two uncoordinated adverbials, if the two adverbials are "Natural" then they must be co-ordinated.

(99)\* The fire burnt slowly unevenly

It seems that all these consequences are in fact borne out.

### SUMMARY

This chapter has been devoted to considering hypotheses capable of explaining properties of Manner Adverbials which were unaccounted for by Current Theory.

Firstly I attempted to give an analysis that would account for the fact that certain Manner Adverbials are selected to accord with certain features of the subject of the Sentence. I suggested that they should be related syntactically to complex sentences with an upper copular sentence in which the adverbial adjective is a predicated

adjective. The lower sentence should then be raised into the upper one by the processes of "It substitution" and V.P. Promotion. Whereas the former of these processes is well-known I have devoted some space to the justification of the latter.

By this analysis I claimed also to account for the facts of un-coordinated recursion of Manner Adverbials and that the outer adverbials are always Subject-Selected.

Secondly I propose that "Natural Adverbials" should be introduced by a disjunctive rule of the Base within the constituent V.P. The advantage of this solution is that it dispenses with an arbitrary "Spelling out" rule, and accounts for the fact that there is not an exact correspondence between the Adjectives that occur as adj+LY adverbials and those that appear in the Prep. Phrase construction.

Finally I have given an analysis of with+N.P. Manner Adverbials attempting to explain that a) they are all subject-selected and b) cannot necessarily derive transformationally from an Adjective. This has involved positing a mechanism in the Base whereby nominals displaying the same selectional properties of adjectives are introduced as predicates of the subject.

FOOTNOTES TO CHAPTER 3

1. Bar-Hillel
2. Observe that there are certain with + N.P. expressions that appear to function as Manner Adverbials which co-occur with inanimate subjects. His letters arrived with great regularity, The light shone with such brightness. The rain fell with such monotony. Some are not by my criteria "Manner Adverbials" since they can occur with copular verbs. I have doubts about the others as to whether they are to be considered productive, given the other facts which are explicable if we consider with + N.P. adverbials to be purely subject-selected (i.e. we can account for their absence in expressions like \* elegant with nauticalness and \* with Frenchness ) or whether they should be considered to be formed through analogy.
3. N. Chomsky "Remarks on Nominalisations".

## CHAPTER 4

### "MORE ON THE MANNER ADVERBIAL"

#### INTRODUCTION

This chapter begins with an attempt to provide analyses that will explain the syntactic properties of certain types of Manner Adverbials. In particular the cases where

- a) The adjectival element of the preposition phrase Manner construction has no corresponding adj+LY form.  
e.g. in the Spanish way - \* Spanishly
- b) The Past Participle plays the role of the adjective in the Manner constructions  
e.g. in a depressed way - \* depressedly
- c) The head noun of the preposition Phrase is a word other than manner or way.  
e.g. talk in a strange accent.
- d) "ing-LY Adverbials"

Finally, a section of this chapter is devoted to the examination of co-occurrence restrictions in which the Manner Adverbial plays a part.

## Adjectival Restrictions

Katz and Postal claim for their analysis which posits <sup>that</sup> a Prep. Phrase underlies all Manner Adverbials that it provides

"an immediate explanation for the fact that the set of adjectives which occurs in the manner construction is exactly that which occurs with that of way and manner (and moreover exactly that set which combines with -ly to form manner adverbials .....the fact that the set of manner adverbials of the form adj+ly contains just those adjectives which can co-occur with way has never been explained for full sentences in any previous description of English" (Pg. 140).

I have already claimed that this claim is wrong for Adverbs in -LY for which there are no corresponding Pre. Phrase Manner Adverbials

(1) John slept deeply (\* in a deep way)

I believe it is also the case that there are Adjectives that appear in the Prep. Phrase manner construction which have no corresponding adj+LY form.

(2) The chef inevitably prepared the sauce in the French way.

(3) This child behaves in an adult manner that sets her aside.

(4) Although only 15, he began to talk in this elderly fashion.

(5) That she should stamp and fume in this adolescent way annoyed us all.

(6) \* Frenchly, \* adultly, \* adolescently  
\* youngly.

Let us note about these forms, that at least at the level of surface structure they are Adjectives, by virtue of the fact that they have distinctive adjectival form in the case of elderly. Moreover all of them may take degree qualification.

(7) in a very adolescent way, in an extremely French manner.

Consider now the fact that certain Adjectives which are apparently synonyms of French, adult and young in many environments, do become -LY adverbials, e.g. gallically, maturely, youthfully. One might be tempted to conclude that this is an idiosyncratic lexical restriction and is to be solved by marking each one of this set of Adjectives for the syntactic property that it does not become an adj+LY Adverbial. It is obvious, that the restriction is different from that which blocks greenly since, according to Current Theory the latter is blocked by a selectional restriction which excludes it from the environment of a Manner Noun, whereas these Adverbials do occur with Manner Nouns o.f.(2)-(5) but fail to become -LY adverbials.

These facts can however be adequately explained if we adopt the Revised Analysis I am proposing. The fact that we do not get \*Frenchly, \*adultly and \*youngly is part of the necessary restriction that these adjectives do not take sentential complements, i.e. that there are no acceptable sentences



I shall now propose that the form with the indefinite article, which is common to both adjectives arises from the underlying structure

(15) ..... in the manner of someone + ADJ  
+ INDEF

and that there is a transformation that converts this into

(16) .... in -INDEF- ADJ - manner.

There are perhaps two processes involved in this transformation. A permutation transformation which fronts the Adjective and places it before the Noun. It is probably the same mechanism which pre-poses the Adjective which is derived from Relativisation. The other step is that which substitutes the Indefinite Article which originally precedes the Adjective for the Definite Article preceding the Noun. Whether this is one process or two seems to me of little theoretical importance. There is therefore ample precedent for the first stage, i.e. Adjective preposing. I should like to show that "ARTICLE CHANGE-OVER" is also not without motivation. This is indicated by the following correlations

(17) a. In the room of a girl, b. in a girl's room, c. in the girls room

(18) a. In the time of an hour, b. in an hour's time, c. in the Hour's time.

The logic of my argument must now be obvious.

If the a. and b. expressions are to be Transformationally

related, and most probably in the direction from a. to b., then an Article-Changeover Transformation must form part of this mechanism, otherwise we shall produce the c. expressions, which are semantically different from a.

This analysis is capable of accounting for the occurrence of Past Participles in Manner Adverbials of the structure -in-adj-way. Hitherto the properties or apparent syntactic properties of Past-Participles in respect of their appearance in Manner Adverbials have been ill-defined if not even undefined. Thus for example those of (19) were acceptable as -LY adverbials and those of (20) not.

(19) dejectedly, contentedly,

(20) \* depressedly, \* comfortedly, \* hurtly.

Yet both those of (19) and (20) occur as the adjectival element of a Manner Adverbial of the form -in adj-manner

(21) "Certainly not" replied Mary in a rather hurt manner.

They are also all by a certain definition adjectives,<sup>1</sup> since they can occur with the Degree Adverbials very, extremely. We can account for this difference in the same way as we did for adult and French, by supposing that all Adjectives that can be predicated of animate subjects may occur in the slot

(22) ... in the manner of INDEF+ONE \_\_\_\_\_adj.

and can therefore be converted to

(23) .... in INDEF \_\_\_\_\_ adj manner.

The fact that those of (19) can also become -LY adverbials is to be accounted for by the property that they can occur with sentential complements<sup>2</sup>. That is to claim that

(24) John was dejected playing tennis  
is ambiguous between a Temporal interpretation and a Complement interpretation but (25) has only the Temporal interpretation

(25) John was hurt playing tennis.

Observe that the alternative to my analysis is to assume the analysis of Current Theory, namely in this case that the Past-Participle arises as the Adjective of a Relative Clause predicated of the Manner Noun. This becomes humorous when we realise that underlying

(26) John played in a depressed manner  
are the sentences

(27) John played in a - the manner was  
depressed-manner.

The analysis I am advocating does lay itself open to the criticism that it is incapable for accounting for certain selectional restrictions, and hence of blocking the following, or at least characterising them as deviant.

- (28) i. \* John spoke in a crippled way  
ii. \* Mary walked in a tongue-tied fashion  
iii. \* His father dances in a divorced way.

I believe that this problem can be solved in the

following way, though, I admit that it may eventually be shown that some additional mechanism is necessary (i.e. such as confining adj fronting to certain types of Adjectives).

I have suggested that underlying Subject-Selected Manner Adverbials which are realised by Prepositional Phrases is a structure of the form of (15). Without destroying this assumption we can account for many of the co-occurrence restrictions by assuming that (15) is itself derived from a yet deeper structure involving two sentences. Thus, for example underlying (30) is the structure of (29)

(29) John behaves himself in the manner in which  
 someone adult behaves himself.

there is subsequently a transformation which transforms that  
 to

(30) John behaves himself in the manner of  
 someone adult

provided that the Verb Phrases of the two sentences are identical. This constraint on the two verb Phrases being identical is sufficient for accounting for the deviancy of the sentences of (28). In other words the fact that (28)i. is strange is due to the fact that its source (31) is strange.

(31) John spoke in the manner in which someone  
 crippled speaks.

This explanation makes the assumption that the deviancy of these adverbial expressions will be removed in case the source

sentence, i.e. a sentence on the model of (29) is appropriate. Thus a sentence such as

(32) John walks in the way someone crippled walks should yield an acceptable sentence

(33) John walked in a crippled way.

This thesis appears, in most cases, to be borne out by the facts.

(34) Mary conducted the interview in a rather tongue-tied fashion.

My only reservations concern certain Past Participles and Adjectives in which it is possible to construct a reasonable source sentence on the model of (32) but for which the reduced form like (36) sounds strange.

(35) She talks in the way someone divorced talks.

(36) ? She talks in a divorced way.

My hesitancy is about whether a sentence such as (36) should be characterised as ungrammatical or just simply as unusual.

I have posited two sources for Subject-Selected Adjectives occurring in Manner Adverbials. One is the Adjective in the higher copular sentence which is the source in Adj-ly adverbials, and in the Preposition Phrase structure I have supposed the Adjective comes from a structure such as (15). I believe that this dual source accounts for certain semantic differences which I feel exists between the two structures. Thus, for example (37) seems to me a perfectly well-formed sentence.

(37) John answered in an angry manner but he  
wasn't really angry.

The apparent paraphrase substituting an adj-ly adverbial I  
consider contradictory.

(38) ? John answered angrily but he wasn't  
really angry.

If this is in fact the case then it is certainly in accord  
with my analysis since the source of (37) is perfectly  
acceptable

(39) John answered in the manner of someone  
angry

whereas that of (38) is patently contradictory.

(40) John was angry answering but he wasn't  
really angry.

The tenor of my argument has been that in the  
case of Natural Adverbials the selectional restrictions hold  
between the Manner Adverbial and the Verb. This is quite  
straight forward when the Adverbial is realised by an  
Adjective. In the case of the Adverbial being realised by a  
Prepositional Phrase and the Adjective is derived from the  
relative clause it is obvious that there are selectional  
restrictions holding between the Noun and the head adjective.  
Thus, we do not get in a green manner, because the adjective  
green is not Subject-Selected nor is it selectionally  
compatible with the noun manner. In the case of slow, as in  
the expression in a slow manner, slow is compatible with

Manner and I assume arises from the embedded copular sentence. But besides being marked for selectional compatibility with the noun manner it must besides be marked for compatibility with the verb so as to block

(41)\* John is insisting on the cake in a  
slow manner.

That an Adjective should be subject in this way to double selection restrictions seems to me very dubious, and particularly so if the Base is to be eventually formulated in a fashion that expresses dependency relationships.<sup>3</sup>

As a hypothetical solution to this problem I suggest that it is possibly the case that even in the prepositional form of the Adverbial the Adjective is head of the constituent. Thus it would be that the origin of (42) is not (43)

(42) John played in a slow manner

(43) John played in a manner which was slow

but rather

(44) John played slow in manner.

This would then undergo a transformation which would place the Adjective in front of the noun. The motivation for such an analysis is firstly one of convenience, since it would allow a simple statement of the Adjective-Verb selectional restrictions.

As further justification it can be claimed that structures such as (45) exist in English

(45) i. clean in thought and deed

ii. He was very pleasant in manner

and we shall therefore have to add some mechanism to produce it.

It can of course be objected that the adjectival element of (46) could not possibly arise in this way

(46) John spoke in that manner which we all loathed

which implies that the Prep. Phrase must be introduced directly into the V.P. anyway, rather than as the complement of an Adjective. It is mainly on account of this objection that I have not seriously countenanced such a solution. There are some other facts that I find disconcerting and for which I have no satisfactory solution.

Prepositional Phrase Manner Adverbials appear to me to be hardly acceptable in sentences in which the subject is inanimate.

(47) John Spoke in a loud manner

(48) ? The bells chimed in a loud manner

(49) ? The door opened in a smooth way

(50)? This type-writer types in a very silent manner

I am far from convinced that the above examples are deviant. Should it however be decided that they are, then I suggest a solution might be devised on the model of the previous suggestion, i.e. that the Preposition Phrase

be analysed as the complement of the Adjective, and some feature such as animateness is associated with the verb.

### -ING +LY ADVERBIALS

Let us turn now to the problem set by having to provide an analysis for adverbs of the form -ingly, as exemplified by the following.

- (51) i. John answered smilingly that he would certainly go.
- ii. Mary said jokingly that she was already married.
- iii. The dog looked up at his master adoringly.
- iv. May thought longingly of her homeland.

Observe moreover that we appear to be confronted by a process which by the addition of the suffix -ly converts the Present Participle of a Verb into an Adverb. Yet the following semantically related verbs do not have any corresponding adverbials.

- (52) \* hatingly, \* likingly, \* wantingly

Another fact which appears to be worthy of note is that some of the -ing roots appear to function in other contexts as Adjectives and others not. The following are functioning as predicate adjectives.

- (53) i. His countenance was severe and unsmiling  
 ii. Bill's loyalty was unswerving and unquestioning.  
 iii. Mary is a very loving person

Those of (54) appear to have no adjectival use.

- (54) i. \* His thoughts were longing.  
 ii. \* Their attitude to life was very joking  
 iii. \* His speech was very feeling.  
 iv. \* John was very laughing throughout the reception.

A further characteristic that distinguishes between the two types is that the -ing forms which cannot function as Adjectives are paraphraseable in their use as -ly Adverbials by a sentence with a temporal clause.

- (55) i. Mary was joking when she said she was already married  
 ii. John was smiling when he said he would certainly go  
 iii. \* The dog was adoring when he looked up at his master.  
 iv. ?Mary was longing when she thought of her homeland.

Yet another distinguishing property which is a consequence of the fact that some are Adjectives and some are not, is that the adjectival type can occur with Degree Modifiers extremely and very.

- (56) i. The dog looked up at his master very adoringly
- ii. Mary thought very longingly of her homeland
- iii. \*John answered very smilingly that he would certainly go.
- iv. \*Mary said very jokingly that she was already married.

I conclude therefore that -ingly adverbials are constructed on two roots, a) an adjectival root, and b) a verbal root. The former group functions as Manner Adverbials, and perhaps even as Sentence Adverbials,<sup>4</sup> The latter group, based on verbal present participles probably arises from a sentence with a Temporal clause or possibly a non-restrictive relative clause i.e. (51)i. must arise from one of the structures of (57)

- (57) i. John was smiling when he entered the room
- ii. John entered the room while smiling
- iii. John who was smiling entered the room.

This type of -ingly adverbial is more closely allied with the Sentence Adverbial. It can be preposed or post-posed without great change of emphasis.

- (58)i. Smilingly John entered the room
- ii. John entered the room smilingly

To account for the Adjectival -ing+LY adverbials appears to provide no problem. They merely have to be

entered in the lexicon as lexical adjectives, though perhaps diachronically related to verbs. They must also, of course be marked as occurring with sentential complements, since in all cases they appear to be subject-selected.

The participle -ing+LY Adverbials present more difficulties since it is far from clear, if they are fully productive, if and how the process is to be constrained. For example the following possible sources do not in fact yield -ing+LY Sentence Adverbials,

- (59) i. John was eating when he talked about  
Mary (\* John talked eatingly .... )  
ii. Mary was playing when she broke her  
leg. (\* Mary broke her leg playingly...)

I suggest that the constraints required to eliminate these are a). that the verb which eventually takes the -ly suffix should be marked as being intransitive. And, b) if we also posit that it must be nonstative we shall account for the unacceptability of (60)

- (60) i. \* John was(hating when he talked about Mary  
(wanting  
(liking

### Related Expressions

In Chapter 2, an attempt was made to define Manner Adverbials pre-systemically. This was done by accepting as axiomatic that slowly was a Manner adverbial, and that co-ordination potential defined "identity of

function" at the level of surface structure. Through application of these criteria, certain expressions which notionally might possibly be considered Manner Adverbials were excluded.

(61) \* He walked slowly and with his hands  
in his pockets

(62) \* In a flash and intelligently he had  
stolen the diamonds

This section is concerned with a set of expressions, all I think of Prep.+N.P. structure, which by the same criteria must be considered "Manner" adverbials. Such are, for example, the following:

(63) Mary spoke gently and in muted tones.

(64) Paul looked quickly and with hungry eyes  
at the steaming platter

(65) John spoke angrily and in a loud voice.

It can be observed that these manner-type expressions differ from the "posture phrases" (e.g. with his hands in his pockets) in that there appears to be in many cases a co-occurrence restriction holding between the verb and the head word of the prepositional phrase. Hence the unacceptability of

(67) \* Mary spoke gently and with hungry eyes.

(68) \* Paul looked quickly and in muted tones.

There is reason to believe that these words are not late lexical substitutions for underlying words such as

way, or re-write forms for adjectively, since there is every evidence that they are subject to the expansion of the P.S. component. In other words they may take further adjectives and relative clause modification.

These expressions appear to carry the semantic load of both Subject-Selected and Natural adverbials.

It seems that the lexemes voice and way perform the same function and have almost identical meaning in (69) and (70)

(69) John spoke in a loud way that was typical of his family.

(70) John spoke in a loud voice that was typical of his family.

In the case of the Prep. Phrase of (69) I have assumed that it is introduced as the natural phrase structure expansion of the category V.P. by the rule

(71) V.P.  $\rightarrow$  V-(N.P.)-(Prep. Phrase)

I see no alternative to deriving the Prep. Phrase of (70) from the same source, but how does one express the restrictions holding between the head noun of the Prep. Phrase and the verb such that sentences such as (67) (68) are characterised as ungrammatical?

Observe, however, that such a restriction is not so idiosyncratic as it might at first appear. A similar restriction is required if my analysis is correct, in order to preclude the occurrence of the verb believe from the

environment of the word manner, in order not to produce

(72)<sup>x</sup> John believes his father in an  
interesting manner.

(i.e. basing myself on the hypothesis that the distinction between Manner and Degree Adverbials is one of features and not of category). Therefore, in the same way that believe is selectionally characterised as occurring only with Degree Adverbials in this context, where the function Degree Adverbial is really a feature of the lexeme, so in the case of (70) speak must be entered as occurring in the environment + Manner and optionally +Vocal Sound

(73) speak + \_\_\_\_\_ (N.P.) +Manner  
+ vocal sound

Words to be similarly characterised are sing, discuss,  
argue, notify, inform.

#### CO-OCCURRENCE RESTRICTIONS

The matter that has just been discussed is really a question of how certain co-occurrence restrictions holding between noun and verb were to be expressed. The problem of co-occurrence restrictions involving the Manner Adverbial is however far more complex than this, and, minimally, must account for the following

a) For Subject-Selected Adverbials

- i) Restriction between Subject Noun and Adverb
- ii) " " " Verb and Adverb

b) For Natural Adverbials

i) Restrictions between Verb and Adverb

I have found no reason for recognising any other type of co-occurrence relationship involving the Verbal adverb. For example there is no known restriction between the Adverb of Manner and the Direct Object. However Chomsky and others have claimed that there is a connection between Passivisation<sup>5</sup> represented in Deep Structure by a Passive Morpheme, and the Manner Adverbial.

In "Aspects" Chomsky has outlined two theoretical devices for expressing these restrictions. The one, Strict Subcategorisation involves restrictions obtaining between Categories. The other called Selectional Restrictions defines the compatibility of lexemes with regard to their feature composition. Thus the ungrammaticality of (74)

(74) \* John fainted the policeman

can be expressed as a reflection of the fact that faint is Strictly Subcategorised as not occurring before the category N.P. Whereas that of

(75) \* <sup>Sincerity</sup> John admires <sup>John</sup> ~~sincerity~~

is a consequence of a Selectional Restriction which states that the Direct Object Nominal of Admire must be a noun marked for the feature+ concrete.

Consider first of all the verb admire in the following sentences.

- (76) i. John admired his father in a strange way  
 ii. John admired his father ~~enormously~~ enormously  
 iii. \* John admired his father slowly  
 iv. \* John resembles his father viciously

It is generally assumed that two formally different types of co-occurrence restrictions are at work in the sentences of (76). The first is the restriction of Strict Subcategorisation by which the fact is formally stated that the Verb admire may be followed by either the category Manner or Degree, as is shown by the acceptability of (76) i. and ii. By the same token the verb resemble is sub-categorised as not co-occurring with a Manner Adverbial hence the ungrammaticality of iv., though, of course it may occur with a Degree Adverbial.

(77) John completely resembles his father.

The other type of co-occurrence restriction, baptised by Chomsky as "Selectional Restrictions" is that which characterises (76) iii. as unacceptable. Informally expressed it states that the verb admire may occur with a Manner Adverbial but not with one which is confined to verbs of action. Observe that there are also verbs that can occur with neither Manner or Degree adverbials, e.g. remain, Be, etc.

I harbour doubts about the validity of the distinction made between verbs such as resemble which do not occur with Manner Adverbials but with Degree Adverbials

and others which can, being accounted for by Strict-Subcategorisation.

Firstly, to formalise this, it is necessary to assume that there is a Category in the V.P. that is optionally expanded as either a Manner or a Degree Adverbial, as expressed by (78)

(78) V.P.  $\longrightarrow$  Verb (N.P.)  $\left. \begin{array}{l} \text{(Manner)} \\ \text{(Degree)} \end{array} \right\}$

It is necessary to state this disjunctively since the Manner and Degree Adverbials, even in the case of verbs which may take either, do not occur together. Now to make this explicit it involves a labelled definition of the function of the nodes (as in (78) ) which as McKay (1968) has argued would involve unmotivated innovations in syntactic theory, in order to ensure that the correct lexeme is dominated by the appropriate labelled node.<sup>6</sup> Alternatively, the functional difference is indicated by the feature composition of the lexeme. McKay concludes that the latter is the simpler and the more consistent with Chomsky's theory of Functional Definition. I should just like to take the argument one stage further. If it is merely a feature difference, then it is not necessary to consider the difference between Manner and Degree Adverbials as one of Category. The restriction that blocks (76) iii. is really simply a Selectional Restriction and not one of Strict Subcategorisation. I shall go on to argue that the distinction Manner vs. Degree is not a categorial one but

purely one of feature. Restrictions of Strict-Subcategorisation are therefore only relevant in the cases where the verb does not occur with either a Manner or Degree Adverbial. That is, for copular and most middle verbs.

Both then for the fact that the Manner and Degree Adverbial are always in complementary distribution and for the fact that their difference can be expressed in terms of the features of the lexeme, I shall assume that a restriction of Strict Subcategorisation is involved only in the cases where a verb neither takes a Degree nor a Manner Adverbial. If it takes one or the other the restriction is to be expressed as a Selectional Restriction.

#### Selectional Restrictions and Subject-Selected Manner Adverbials.

I have claimed that there are two types of Subject-Selected Manner Adverbials, a) the type which arises in an upper copular sentence and which may be realised either as adj+LY or as with + N.P. and, b) the type which occurs in the structure in-adj-way. In respect of the latter I have already considered/<sup>it</sup>in this chapter and suggested that most, if not all,<sup>of</sup>the selectional problems associated with these Adverbials might be solved if they are analysed as arising from the structure

(79) V.P. in-the-way INDEF + one -adj-V.P.

(where the two tokens of V.P. are identical)

I explained how such a formulation would account for the possible anomalies such as

(80) John spoke in a crippled manner.

There appears, in practice to be another restriction operative, though I am not sure that this is a restriction on "Competence" or on actual usage. This restriction is illustrated by (81)

(81) Mary walked in a beautiful manner.

According to my analysis this should be ambiguous between two readings, since the adjective beautiful is predicable of both inanimate and animate nouns

(82) i. Mary walked in a manner which was beautiful

ii. Mary walked in the manner of someone beautiful.

In my dialect, at least, only the former interpretation is associated with a sentence such as (81).

I assume therefore that there must be a constraint that blocks the sentence (81) derived from (82)ii. where the adjective is +animate, in case it can also be -animate.

I shall not even attempt to solve here the problem as to the nature of such a constraint. It seems <sup>doubtful</sup> ~~certain~~ however that it can be performed by the Transformational component, as presently conceived. I believe it to be the case that the selectional restrictions operating between a verb and the Subject-Selected Adj+ly adverbial are not identical to

those between the Verb and the corresponding in-adj-way Subject-Selected Adverbial, and that this difference is accountable for in terms of their different origins. Thus it seems to me that the sentences of (83) are more acceptable than those of (84).

- (83) i. Bill sleeps in a ridiculous manner  
           ii. Mary fell in <sup>an</sup> interesting manner
- (84) i. \* Bill sleeps ridiculously  
       ii. \* Mary failed interestingly

Consider now the formal problem involved in expressing restrictions holding between an Adj+LY, Subject-Selected Manner Adverbial and the verb. This is one fact of the unacceptability of Chomsky's hallucinatory sentence

- (85) Colorless green ideas sleep furiously.

which I shall simplify by using the sentence (86)

- (86) \* John sleeps furiously

Under my analysis this arises from the underlying

- (87) \* John was furious sleeping

If sleeping in (87) is interpreted as a complement of furious then it seems to me that both (86) and (87) must be characterised as unacceptable. The problem is that I have analysed them, i.e. the lexemes furious and sleep as coming from different sentences, in consequence of which there can be no selectional restrictions operating between them. This is probably one of the reasons why most analysts

have been satisfied to derive all Manner Adverbials from within the sentence with the verb they are to modify.

I shall not alter my analysis, however, since I believe this problem has to be faced in relation to syntactic facts external to the grammar of Manner Adverbials. In other words a Sentence such as (88) displays the same selectional anomaly.

(88)\* John is clever at sleeping.

The selectional restrictions operating for (88) must be explained, even if we do not use it as the source of the Manner Adverbial.

I think this can be done even without altering the present concept of the scope of Selectional restrictions, namely, by assuming that complements may be V.P.'s as well as S. dominated by N.P. I prefer therefore to maintain my analysis since in this small area of syntax the advantages that accrue thereby are numerous and leave to be considered what consequences are entailed for any contiguous areas of syntactic theory.

I am now assuming therefore that selectional restrictions can be expressed between the Adjective as in (88) and the Verb of its complement. The question must now be asked, if such be the case, what are the requisite restrictions?

I believe that one requirement is that the verb must belong to a class which I shall call volatives. This

simply denotes the fact that the subject of the verb is semantically in control of the action, in a sense that I think is immediately clear. Thus it is that non-volative verbs such as

(89) faint, die, pass the exam, lose the match do not occur with Subject-Selected Manner Adverbials, though they can occur with Natural Adverbials, in many cases.

(90) i.\* His brother-in-law died rather cleverly

ii.\* Mary fainted ~~so~~ angrily that she broke her arm.

The fact that the restriction on Volatives and Subject-Selected-Manner Adverbials is the same as that operating in a sentence of the form of (88) cannot be explained in any principled manner by Current Theory. It therefore appears to be further justification of this analysis.

Another restriction appears to be that only verbs that can take Natural Adverbials take Subject-Selected Manner Adverbials. Consequently, verbal expressions such as be careful, marry, remain, which appear to be "Volative", and might perhaps fit in the frame of a structure such as (88) occur neither with Natural nor Subject-Selected Manner Adverbials.

Two then are the sources for Subject-Selected Manner Adverbials and two the types of co-occurrence restriction.

In the case of the Prep. Phrase Manner Adverbial the restrictions are defined as being the same as those operating in a sentence of the form (79). In the case of the Adj+LY Adverbial the Verb must belong to the class of volative verbs and, moreover, of the type which also occurs with Natural Adverbials. In order that these restrictions might be adequately stated one must either change the present theory concerning the scope of Selectional Restrictions or alternatively assume that the complement is a V.P. and not an S. As this matter must yet be decided I shall continue to refer to the Sentential complement of these Adjectives, but it should be understood that I am assuming that selectional restrictions are operative between the Adjective and the Verb of its complement.

The following section is devoted to establishing the Selectional Restrictions between the Natural Adverbial (i.e. the adverbial which in D.S. is the daughter of the V.p. node), and the verb.

## SELECTIONAL RESTRICTIONS BETWEEN VERB AND NATURAL ADVERBIAL

### Kinetic Adverbials

There is a set of adverbials of which those of (91) are representatives

(91) quickly, slowly, ponderously, clumsily  
which are selectionally restricted to certain verbs. They

cannot, for example, occur with Stative verbs

(92) \* I believe slowly in the unique source.

but, they can neither occur with all non-stative verbs.

(93) \* Devote yourself slowly to politics.

Semantically, these Verbs appear to be associated with movement, yet they do occur with verbs such as think deduce, in which the movement, if any, is purely mental.

It is convenient therefore to set up a class of verbs which will be called here "Action" Verbs and these verbs are defined as occurring with Kinetic Adverbs, i.e. those of the class of (91), which despite the circularity will themselves here be defined or rather discovered through their relationship with these verbs.

### "Quality Adverbs"

It has been noted that a verb such as become is characterised by features that permit it to co-occur <sup>and</sup> with Kinetic Adverbials/Change Adverbials.

(94) John became (slowly ) deaf.  
(gradually)

It may also occur with Adverbs of Habitual;  
Aspect (Frequentatives)

(95) He became angry so frequently that he had  
to leave.

A verb such as become must be marked, however, as not occurring with Adverbs, that appear to denote the

'quality' of the action. Thus

(96) John became strangely deaf  
can only mean "his deafness was of a peculiar type". There  
is no acceptable paraphrase

(97) John became deaf in a strange manner.

Manner Adverbs of "Quality" appear to be the  
following.

interestingly, delightfully, surprisingly, and, I think, all  
Subject-Selected Manner Adverbials.

Verbs that cannot occur with "Quality" Adverbs  
are the following.

realise, improve, delayed, exaggerate.

(98) \* John realised interestingly that he  
was being followed.

The following Adverbs, though not necessarily  
notionally Adverbs of Manner nonetheless appear to arise  
in the same place in structure and betray the other syntactic  
properties of the Verbal Adverbial,<sup>7</sup> namely, selectional  
dependence on the verb, and potential to occur with the  
various attributive modifiers.

#### Adverbials of Habitual Aspect

Such adverbs are regularly, frequently, constantly.  
They are certainly de-adjectival Adverbials, though in the  
literature they have generally been referred to as  
"Frequentatives". It does seem that they are capable of

co-ordination with certain Manner Adverbials

(99) John plays frequently and well

But unlike other Manner Adverbials they can co-occur with a Manner Adverbial

(100) John plays well frequently.

In my judgement this Adverbial can occur with the Adverbial pre-posed without great change of meaning

(101) Frequently, John plays well.

We have noted this to be the characteristic of the Adverbial dominated by Predicate Phrase. Observe, however, that when the sentence contains no Manner Adverbial pre-positioning of the Frequentative is less acceptable

(102) ?Frequently, John plays.

and one feels must be the result of Topicalisation, which involves change of emphasis.

My solution is to suggest that Frequentatives may occur in two places in Structure, either as a daughter of V.P. or Predicate Phrase, with the restriction that it occurs in the latter position only in case there is a verbal Adverbial already in the sentence.

### Adverbs of Change.

This is a set of Adverbs which occur with verbs that generally refer to change of state or position.

e.g. (103) gradually, suddenly

Many of the adverbs of this set have the same

form as the Kinetic Adverbs, i.e. slowly, quickly. This may be a reflection of the fact that verbs of Change are simply a subset of Action Verbs. Observe, however, that an action verb such as play or run cannot occur with gradually.

(104) \* John plays tennis gradually

Verbs that must be marked for the feature change are become, happen, improve, and I think, all causatives.

Change Adverbials appear to be pre-posable without great change of emphasis.

(105) i. John became rich gradually.

ii. ~~Gradually~~, John became rich.

Consider in this light the contrast in emphasis between

(106) Slowly, John improved

(107) Slowly, ~~John~~ played tennis.

In the latter sentence (107) the position of the adverb seems to imply emphasis, in (106) however, its pre-position seems unemphatic. I think these facts can be correlated in order to arrive at the conclusion that it is purely accidental that Adverbs of Change have the same form as the Kinetic Adverbs, in the same sense that it is accidental that the Sentence Adverbial obviously has the same shape as the Manner Adverbial obviously. In (106) slowly is functioning as an Adverb of Change and in (107) as a Kinetic Adverb. This distinction is supported by the facts that a) Adverbs

of Change do not occur with all verbs that take Kinetic Adverbs and b) the Adverb of Change is characterised by the privilege of occurring unemphatically in initial position.

One generalisation over the restrictions of co-occurrence that it seems possible to make is that true Manner Adverbials are excluded from the environment of a Stative Verb. Thus the following are unacceptable

(108)\* John believes regularly  
slowly  
frequently  
strangely  
suddenly

On the other hand Stative Verbs do occur with Verbal Adverbials<sup>7</sup> but these Adverbials are those which have traditionally been called Degree Adverbials.

(109) John believes implicitly everything  
he is told completely

If this is so believe provides a counter-example to the hypothesis that the morpheme that triggers the Passive Transformation is an optional expansion of the Category Manner. Believe does not take a Manner Adverbial yet it does passivise.

(110) This whole concocted story was believed  
by everyone.

Before leaving the problem of the selectional restrictions holding between Verbs and Manner Adverbials, the following case, brought to my attention by Professor Bazell, seems to

me to be worthy of note. It concerns the verb see, a verb which by the established definitions must be considered a stative verb, in its normal usage. True to this definition it does not occur with Manner Adverbials.

(111)<sup>\*</sup> John sees the boat slowly  
strangely  
?constantly  
?suddenly.

Nevertheless it does occur with a de-adjectival adverbial in (112)

(112) John can easily see the boat.

Though this Adjective is not paraphraseable by a Manner preposition phrase adverbial. In other words it is not equivalent to (113)

(113) ?John sees the boat in an easy manner.

It is, however, apparently, a verbal adverbial (i.e. one dominated by V.P.), and only pre-poses as a result of Topicalisation

(114) Easily John can see the boat.

The possibility exists that there is another productive process, relevant to de-adjectival adverbials, such that easily is brought into that position by transformation. This is suggested by the paraphrase relationship with (115)

(115) It was easy for John to see the boat.

The choice facing the analyst is whether to set up a separate class of Adverbials with easily and any other members which might be found to conform syntactically,

to be introduced by the same Base Rules, but to be differentiated from the others by selectional restrictions or whether to analyse it as being transformationally introduced from a structure such as (115).

The problem of the latter analysis is that it would involve stating certain constraints on this process so as not to produce

(116)\* John could importantly see the boat from the supposed

(117) It was important for John to see the boat.

I know of no motivated constraints at the moment capable of adequately defining this process. In default of these, therefore, it will be assumed that in cases such as easily in (112), the node Adjective is introduced into the position it occupies in the surface structure purely by the operation of the rules of the Base.

The claims made in this chapter are that the analysis that provides for direct introduction of both the categories Adjective and Preposition Phrase as an expansion of the V.P. provides a natural account for the property that certain adjectives occur as Manner Adverbials only in the Prep. Phrase form and others in the structure Adj+LY. Under Current Theory this would involve rather complex statements of restrictions to be incorporated into the entry for each lexical item.

Such an analysis provides a natural explanation

of why the true Past Participle never undergoes →LY Attachment. It can only be introduced into a Manner Adverbial either as the Predicate of the Manner Noun

(118) John spoke in that hated way of his  
 (\* hatedly)

or as a Subject Selected predicated

(119) John spoke in a depressed manner.

Again, it can be said for this analysis that it provides for two sources for Subject-Selected Adverbials, and thereby accounts for certain differences in truth conditions relevant to the two types. Thus

(120) John spoke in an angry manner but wasn't  
 really angry

is an acceptable statement, but (121) is not.

(121) John spoke angrily but wasn't really angry.

There are also differences in Selectional Restrictions between the two types based on the same adjective.

I have suggested how certain Preposition Phrase Manner Adverbials in which the head noun is not the traditional Manner word, might be analysed. This, in particular, involves the statement of a selectional restriction holding between the verb and the head noun of the Preposition Phrase, in order to produce (122) but not (123)

(122) John spoke in a vibrant voice

(123) \* John walked in a vibrant voice.

The second part of the chapter dealt with

restrictions of co-occurrence. I suggest that some of the restrictions generally held to be of the Strict Subcategorization type

(124)\* John resembled his father slowly  
 were perhaps better considered Selectional. This would allow one to consider Degree and Manner Adverbials as being categorially the same, which would involve a simplification of the Base Rules.

I suggest certain restrictions that must be placed on the transformations that convert sentences such as

(125) John is careful playing tennis

into

(126) John plays tennis carefully

The verb of the complement must be marked as + Volative.

In the case of Preposition Phrase Subject-Selected Adverbials I proposed that most of the selectional restrictions could be handled if it was assumed that the sentence (127) was derived from (128)

(127) John spoke in the manner of someone happy

(128) John spoke in the manner in which someone  
 happy speaks.

Subsequently, I analysed other selectional restrictions operative between the verbs and the adjectival elements of the Manner Adverbials.

FOOTNOTES TO CHAPTER 4

- 1) The Past Participle forms that occur with -LY are perhaps lexical adjectives. There appears to be no verbal synchronic use for some \* This news dejected John. Observe also that contented as a verb has a different meaning from contented+ly. In one case it means "satisfied" and in the other "happy".
2. That is they arise by the mechanism discussed in Chapter 2 for "Subject-Selected Adj+LY Manner Adverbials."
3. This matter is discussed in Chapter 9. The notion that one category is the modifier of another, i.e. that of head-qualifier, is not defined explicitly in the "Aspects Model". This is what I refer to as a "dependency" relationship. That an adequate grammatical model should define such a relationship is implicit in a number of authoritative proposals for the improvement of the model. (cf. Lyons 1968; J. Robertson and Chomsky "Remarks on Nominalisation".)
4. E.g. a Sentence Adverbial in -ing.  
John stayed despairingly at home all day.

5. Chomsky (1965) observes.

"In, particular, the Manner Adverbial participates in Verb subcategorization. Thus verbs generally take Manner Adverbials freely, but there are some that do not-- for example: resemble, have, marry (in the sense of John married Mary, not "The preacher married John and Mary" which does take Manner Adverbials freely); ..... The Verbs that do not take Manner Adverbials freely Lees has called "middled Verbs" (Lees, 1960a, p.8), and he has observed that these are, characteristically, the verbs with following N.P.s that do not undergo the passive transformation.....

These observations suggest that the Manner Adverbial should have as one of its realisations a "dummy element" signifying that the passive transformation must obligatorily apply. That is, we may have the rule (55) as a rewriting rule of the base and may formulate the passive transformation so as to apply to strings of the form (56), with an elementary transformation that substitutes the first N.P. for the dummy element passive and places the second N.P. in the position of the first N.P.

(55) Manner ----- by passive

(56) N.P. - Aux -V - ...-N.P.-...-by passive-...

There is, therefore, within Current theory, an established restriction between

- a) those verbs that do not take manner adverbials "freely" and do not passivise, and,
- b) those verbs that take manner adverbials freely and do passivise.

This neat correlation, is seen by Chomsky as providing an insightful generalisation

"First of all it accounts automatically for the restriction of passivisation to Verbs that take Manner Adverbials freely. That is, a Verb will appear in the Frame (56) and thus undergo the passive transformation only if it is positively specified in the lexicon for the strict-subcategorization feature  $\langle \text{--N.P. Manner} \rangle$ , in which case it will also take Manner Adverbials freely". (pg. 104).

Chomsky and Lees are probably correct if they mean that a verb only passivises if it takes both i) a N.P. object  
ii) a manner adverbial.

It is certainly not the case that to take adverbials freely is sufficient to characterise a verb as passivisable e.g. sleep

( i ) John slept profoundly

It must be assumed therefore, if the manner category is expanded (according to Chomsky's rule (55) above) into the manner morpheme "by passive manner" in the case of a verb such as sleep, then the underlying string is discarded, by the filtering effect of the transformation. Since its S.D. never meets the conditions for any transformation, it never becomes a surface structure. Thus

(ii) John sleep by passive.

though inevitably produced by the base rules never appears in surface structure since the morphemes "by passive" are never lexically realised.

There are possible counter examples to this, even under this interpretation of the Chomsky/Lees principle. Let us take the example of fit, quoted by Chomsky, as adhering to these conditions. It can be followed by a N.P.

(iii) The suit fits me

Correctly he claims that it does not passivise

(iv) \*I am fitted by the suit.

6. Chomsky's solution posits an unnecessary intervening node Manner. It has no analytic role in transformational rules. Every rule that refers to Manner in Fig. (a) must also concern the dominated Prep. Phrase and vice-versa.

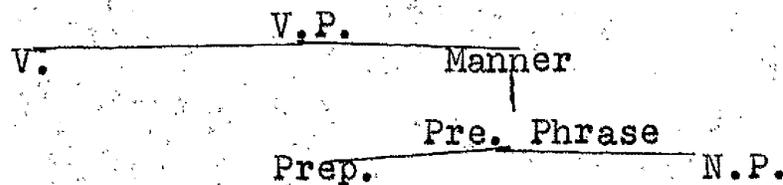


Fig. (a)

Secondly, it involves the assumption that there is a condition on lexical insertion whereby a lexeme must not only be inserted in conformity with the syntactic property of the immediately dominating node, but also in accord with the node two places above that lowest node. In other words, were this condition not placed, a structure such as Fig. (a) could dominate the string in a strange ice-cream.

7. I use the term "Verbal Adverbial" to refer to any Adverbial which is introduced by the Base Rules as an expansion of V.P.

V.P. -----> V.(N.P.) Adj.

The adj of the above rule will therefore be developed into a "Verbal Adverbial". All Natural Manner Adverbials are Verbal Adverbials.

## CHAPTER 5

SENTENCE ADVERBIALS

There is in English a very productive class of adj+LY adverbials which can be distinguished by very clear-cut syntactic criteria from both Manner and Degree Adverbials. It is a type of which certainly in the following sentence is a representative.

(1) Certainly he won't visit us after today.

For the present purpose, it is sufficient to say that this class is definable in the following way, though there are many other surface criteria that could be invoked.<sup>1</sup>

1) Sentence Adverbials are adj+ly Adverbials that can occur in copular sentences, independently of another Adjective.

(2) Really, John is despicable.

2) They have no paraphrase of either the form in-adj-way or to adj-degree.

(3) \*In a real way John is despicable

(4) \*To a certain degree he won't visit us after today.

3) They may occur in both sentence-initial or sentence final position without significant change of emphasis.

(5) Obviously John is a fool

(6) John is a fool obviously.

Let us assume that the objects of study of this chapter are sufficiently identified, though subsequently it may be decided that these criteria are too powerful or conversely, not powerful enough to adequately and accurately indicate the class which is defined by the grammar as Sentence Adverbials.

### CURRENT THEORIES OF SENTENCE ADVERBIALS

It is most commonly held that the Sentence Adverbial is a derived category, though the difficulty of deriving them has also been admitted.<sup>2</sup> In other words sentence (1) had traditionally been associated (i.e. transformationally) with the paraphrase (7)

(7) That he won't visit us today is certain.

Implicit, however, in the work of Katz and Postal (1964) is the theory that they are Deep Structure categories. Thus, for example, it is claimed by them that Sentence adverbials do not occur in Imperative and Interrogative Sentences because there is a Deep Structure morpheme associated with these sentences, that is an Imperative and Interrogative morpheme, I and Q, respectively, and that Sentence Adverbials are (strictly) sub-categorised as not occurring in the environment of I and Q.<sup>3</sup> Now, sub-categorisation is only relevant to elements which together are dominated by a single token of S at the stage at

which lexical insertion occurs. Ergo, for Katz and Postal the Sentence Adverbial must arise within the same S as the I and Q morphemes, but if (7) underlies (1) which seems a reasonable analysis, then certain is at that stage in a higher S. The two theories are therefore incompatible. In other words, if the co-occurrence restrictions really work as Katz and Postal assume, then, Sentence Adverbials are a category arising in the same sentence as that in which they appear. On the other hand, if they arise outside the sentence with which they are associated in Surface Structure then the restrictions must operate in a different way than supposed by Katz and Postal. The investigation of the syntax of the Sentence Adverbial is not without a certain transcendence, since here is to be gleaned the empirical evidence for or against the theory of abstract morphemes such as I and Q, or at least some indication which will further define their functioning within the grammar.

The type of Sentence Adverbial for which the case for "Derived Status" has been most convincingly made is the one which I shall here call the "Sentential Predicate Adverbial".

THE SENTENTIAL PREDICATE ADVERBIAL

This is the set of Adverbials for which there exists a paraphrase with the adjectival element functioning as the predicate of a copular sentence, and in which the "propositional" content is a sentential N.P. functioning as subject. This relationship is exemplified by (8) and (9).

(8) Obviously John has arrived.

(9) That John has arrived is obvious.

If the relationship between these two sentences can be shown to be transformational, it will involve a considerable economy in the grammar and will formally explicate their intuited synonymy.

It will be recalled that in chapter 3, I assumed that this relationship was transformational and was explicable in terms of a Verb Phrase promotion transformation. In other words a transformational would convert the structure of Fig.(I)A into that of Fig.(I)B.

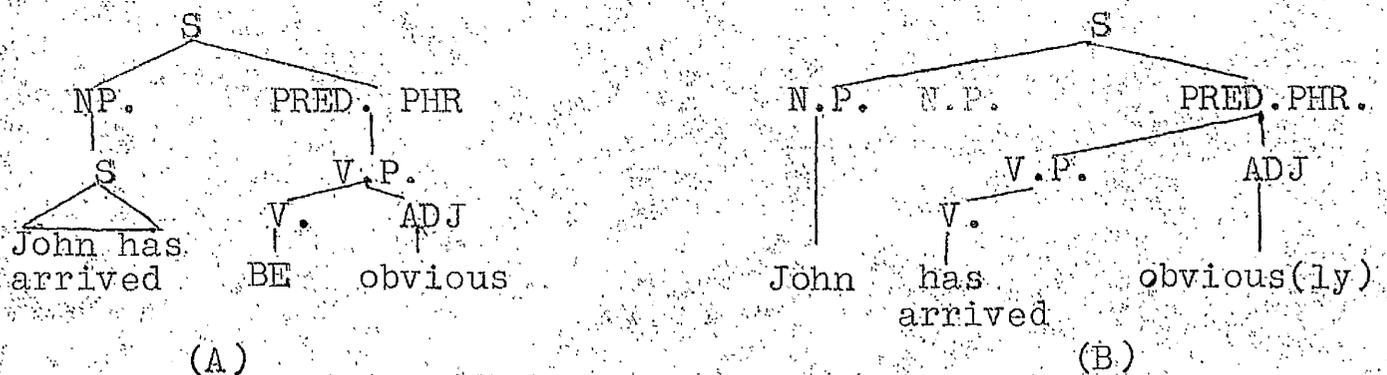


FIG (I)

The arguments used to support this analysis are the following.

1) A raising transformation must be considered anyway as a necessary part of the mechanism of a Grammar. (see pp. 62 - 64 )

2) If the V.P. transformation functioned as I have suggested then the process by which the sentential N.P. subject of (A) becomes the simple (concrete?) subject of (B) could be explained in a non -ad hoc manner since this would be brought about by "IT substitution".

3) But, most significantly, the set of adverbials with an established set of syntactic properties can be accurately defined by this transformation and these syntactic idiosyncrasies accounted for in terms of the restrictions on the transformation.

Let us assume that the Transformation converging (A) to (B) is the following

V.P.Promotion

(10) N.P. -V.P. -BE-ADJ  $\Rightarrow$  1 - 3+2 - 4  
           1      2   3   4

This transformation defines a change to a structure in between that of (A) and (B) of Fig.(I) above.

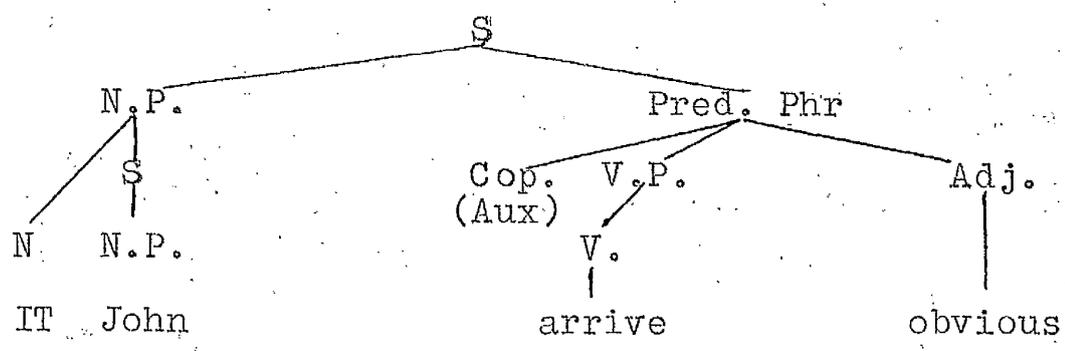


Fig.(2)

At this stage it can be assumed that "It Substitution" occurs.

"The subject N.P. of the lower sentence is substituted for it or its... The substituted N.P. becomes syntactically independent of the sentence to which it belonged in the deep structure, and it behaves as if it were the subject or the direct object of the higher verb.." (R. Lakoff (1968) p.33).

Observe that the situation here differs slightly from the account given above, in that the V.P. has also been moved up, so in fact the N.P. subject of the lower sentence still governs the same verb as it did in the lower sentence.

Assuming the Grammar to contain devices of this power Fig (2) still differs from Fig (1)B; at the stage of Fig (2) it contains both a copula and an ordinary V.P.. I am uncertain of what the intermediate derived Structure is. It might for example be assumed that the copula is the realisation of the Aux. of the upper sentence in default of there being a lexical verb.

It might therefore be considered to be incorporated into its "new-found" V.P.. The argument against this, however, is that the meaning of the copula is always "present time" whereas in few cases is there a restriction on the tense of the embedded Verb phrase.

(11) Obviously John has killed Peter only means it is obvious and not it has been obvious. It is simpler therefore to assume that the copular of the upper sentence is necessarily deleted by the very widely used Transformation of "Copula Deletion".

#### RESTRICTIONS

A certain restriction which must be imposed on this transformation has just come to light. The tense of the copular sentence must be 'present'.

There are other ways too in which the formulation (10) is too powerful. Consider the following

(12) \*Uncertainly, John has done it (That John has done it is uncertain)

(13) \*Impossibly, John has done it (That John has done it is impossible)

(14) \*Deniably, Paul hit him first. (That Paul hit him first is deniable).

Prima facie the restriction appears to be that the adverbialisation is not allowed if the Adjective is Negative, since the positive forms are all acceptable. (i.e. certainly, Possibly, Undeniably).

Yet consider the following.

(15) Indisputably, he is a good fellow.

Unquestionably Mary will marry him.

Unarguably, he will go to prison.

I shall discuss this restriction later on.

There is certain evidence moreover that a yet nicer distinction must be made amongst the members of the set the S.P. "THAT" Complementiser Adverbials".

Consider the following examples

(16) To be obviously a communist was frowned upon.

(17) ?To be certainly a communist was frowned upon.

To me it seems that (16) is more acceptable than (17).

Whether the marginal status of (17) is to be accounted for by the syntactic mechanism of a competence grammar seems to me problematic. The considerations which I set forth below relating to a "Paraphrastic" construction imply that this is a syntactic matter.

A PARAPHRASTIC CONSTRUCTION.

Related to sentence (18) is its paraphrase (19)

(18) That John has gone is certain

(19) John is certain to have gone.

These two sentences appear to be transformationally related. More precisely, if we judge by meaning relationships, (18) would appear to underly (19). One problem is however posed, if there is such a relationship, and that is by the fact that the structurally similar sentence (20) has no acceptable transform (21)

(20) That John has gone is obvious.

(21) \*John is obvious to have gone.

For the moment, let us ignore this problem and consider how the transformation of (18) into (19) might have taken place. Fortunately, a similar construction has been the object of some attention from both Rosenbaum and Hofmann.<sup>4</sup> Of relevance to the present discussion is their analysis of sentences of the form

(22) He is known to dislike singing.

It is argued that (22) must arise from a Deep Structure like that of Fig (3)

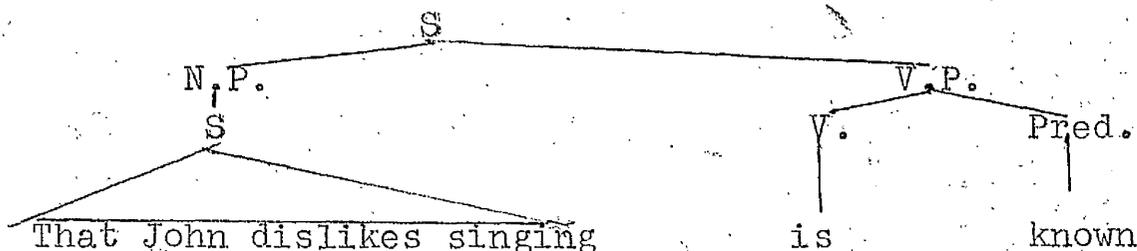


Fig (3)

and that the following two transformations necessarily apply

a) Extraposition, which applying to a structure like Fig (3) yields

(23) It is known that John dislikes singing

b) "IT Replacement", which takes the subject of an embedded sentence and puts it in the place of the expletive IT in the next sentence above. This gives us the desired form

(24) John is known to dislike singing.

It is obvious that this process could apply to the structure that we have assumed to underly (19) to produce (25).

Extraposition will give

(25) It is certain that John has gone  
and "IT Replacement"

(26) John is certain to have gone.

but, to revert to our problem, how do we block (21)? Under our present analysis they have the same structure.

In the case of the verbal construction Hofmann makes the following observation:

"Let us examine which verbs undergo this course of derivation and which do not. First, we may note that all verbs which occur in these constructions have a 'positive' sense. That is a negative verb like disprove or deny is not found in such constructions.....But this observation is just a special case of a more general observation....that it can take a complement "Z be true" (e.g. "It is true that John is coming") with the meaning that the truth of Z is qualified by or results from the main verb of the epistemic passive".. (Hofmann 1966).

The implication is that the structure underlying (22) is not that of Fig (3) but rather the one that underlies (27)

(27) That John dislikes singing is ( so ) is known.  
( true )

In other words, the verbs that undergo this transformation are those which naturally take a "Truth statement" complement sentence of the form "S-be true". Thus (28) is not acceptable

(28) \* John is (remembered) to like singing  
(repeated )

precisely because repeated (unlike said) has nothing to do with affirmation of the truth of a statement but simply denotes the fact that an utterance was spoken again.

However "hair-splitting" this may appear for verbs, I believe, that in the case of Adjectives, there is some more concrete evidence that supports the distinction we are attempting to make, since the form (29) is grammatical for certain but not for obvious

(29) i. That John has gone is certain to be so

ii. \*That John has gone is obvious to be so

To be honest, I do not know how (29)i is derived and by what mechanism (29)ii is blocked. I have merely attempted to claim that further sub-categorisation may be necessary amongst the set I have termed S.P. Adverbials (Type I)<sup>5</sup>, firstly because



To summarise, it appears likely that Sentential Predicate Adverbials type 1 (see Note 5) must be further sub-categorised into at least two types.

i) Those which have the syntactic properties of certainly and surely and ii) Those which are like obviously and indisputably.

This sub-categorisation will have to account for the properties made manifest in the following pairs.

CERTAINLY, SURELY	OBVIOUSLY, INDISPUTABLY
i) *He is a certainly happy man now	He is an obviously happy man now.
ii) It is certain to be so that he did it.	*It is obvious to be so that he did it.
iii) *To be certainly a communist was frowned upon	To be obviously a communist was frowned upon.
iv) John is certain to go	*John is obvious to go.

Fig (6)

#### SUB-CATEGORISATION OF S.P ADVERBIALS

There is an evident sub-categorisation that must be made amongst the members of this set, one that will distinguish those Adverbials that occur in Sentences in which the Sentential

subject is introduced by a that complementiser as opposed to those in which the complementiser is for-to or Poss-ing. We shall see later to what extent this distinction is syntactically relevant to the grammar of Adverbials.

Set A) S.P. Adverbials ("That" Complementisers)

certainly, obviously, clearly, surely

Set B) S.P. Adverbials (For-to "Complementisers)

appropriately, bizarrely, tragically

This distinction in terms of the dichotomy formalised above is misleading since most of the members which belong to the latter set may also occur with "That" Complementisers. Rather the formulation in terms of "Markedness" as given in Lakoff<sup>6</sup> is therefore better. We may simply state this by saying that those of set A) above are completely unmarked (and therefore take the Unmarked complementiser - "That") those of Set B) are marked as appearing with for-to and Possing but may optionally take the Unmarked complementiser.

It is necessary to refer to this feature in order to account for the distribution of Sentence Adverbials with negative prefixes.

#### A RESTRICTION ON SENTENTIAL PREDICATE ADVERBIALS

There are apparently two restrictions involving negation in Sentence Adverbials. The one quite general concerns the occurrence of Sentence Negative elements such as not with

Sentence Adverbials. The other, less restricted, defines the distribution of word negative prefix in Sentence Adverbials. It is with the latter case that I am concerned at the moment. For example those of (30) are acceptable and those of (31) not. Syntactically what is this distinction?

(30)i. Unfortunately, he was hit over the head with a hammer.

ii. Disloyally, he spoke of his association with Maria.

iii. Unquestionably, these are the best we have produced.

(31)i. \*Uncertainly, John went home last night.

ii. \*Impossibly he escaped from prison last week.

iii. \*Inconceivably, he bribed the guards and the warders.

Why those of (30) should be grammatical and those of (31) not has never been explained. Before attempting to answer this question let us try and account for another property of Sentence Adverbials, namely that which permits certain of them to occur with Prep. Phrase complements.

#### Sentential Predicate Adverbials with optional complements

Certain Sentential Predicate Adverbials enjoy the privilege of occurring with a Prepositional Phrase complement.

Such are those of (32)

- (32) i. Luckily for us John didn't arrive on time.  
 ii. Mercifully for Mary she was born beautiful.  
 iii. Annoyingly for the Conservatives, prohibition was a dead duck.

The problem posed is that of discovering the nature of the restriction excluding complements like those of (33) from appearing in similar constructions.

- (33) i. \*Obviously to Yvonne Bill had already gone home  
 ii. \*Possibly for Paul, he has won a scholarship to attend.

In other words it is not sufficient to claim that those of (32) have underlying them a structure such as that underlying (34)

- (34) That John didn't arrive on time was lucky for us.

As little or no theorising has to my knowledge yet been done on this matter I shall proffer the following tentative analysis.

a) I suggest that these adverbials arise as Manner Adverbials in an upper sentence.

That they should be Manner Adverbials is suggested by the fact that they occur without any restrictions with Attributive (Degree) Adverbials.

(35) Extremely luckily for us, John didn't arrive on time.

This potential to occur with Attributive Adverbials is very restricted in the Sentence Adverbial system, and is discussed in detail subsequently in this chapter.

b) If it is a Manner Adverbial then semantically it would appear to modify a verb such as happen or turn out, in such a way that (32)ii could be described as having underlying it.

(36) It turned out mercifully for Mary that she was born beautiful.

Finally it can be said in justification of this analysis, that it works. It predicts precisely those verbs which can take Prep. Phrase complements, as being the Manner Adverbials which are selectionally compatible with the verb turn out, and excludes very naturally those that do not appear in this construction.

(37) It turned out \*possibly for Mary that she was born beautiful.

\*obviously

\*certainly

\*necessarily

This involves the assumption that there is a verb of the class of turn out or happen that is deleted. This situation is similar to that encountered by R. Lakoff (1968) who finds it convenient to posit "Abstract Verbs" in order, in the phonological absence of a given type of verb, to account for the presence in a sentence of certain properties associated normally with this type of verb. An "Abstract Verb"

"...in the deep structure is a verb with semantic and syntactic properties similar to those found in real verbs but with no phonological form; such verbs govern the application of complementiser placement, complementiser-change and sometimes other rules as well".<sup>7</sup>

If, in line with R. Lakoff, we assume that one of such verbs is the verb turn out, then it appears we can very adequately account both for the set of Adverbials that occur with complements and also for the fact that they display no restrictions on occurring with Attributive (Degree) Adverbials.

That a distinction should be made between the source of these Adverbials and that of the other Sentential Predicate Adverbials gains support from the fact that these Adverbials can co-occur with the normal Sentential Predicate Adverbials.

(38) Obviously, rather amazingly for the members, it was subsequently decided to admit women.

Not only does this distinction between Sentence Adverbials that arise from Predicate Adjectives copular sentences and those which come from Manner Adverbials with the abstract verb turn out of higher sentences, allow us to state the distribution of Optional Complements but also it allows us to predict the negative prefixes with these adverbials.

This analysis allows us to make a subcategorisation amongst Sentential Predicate Adverbials, here termed Type I and Type 2.

- (1) S.P.Adverbials Type I, are those in which the upper sentence is a copular one and in which the Adjective is a Predicate.
- (2) S.P.Adverbials Type II, assumes the verb of the upper sentence is turn out or happen, and that the Adjective actually functions as a Manner Adverbial in the upper sentence.

Notice also, that Type I Adverbials may be divided into those which occur only with "That Complementisers" and those which may occur with either. (Apparently all Type II S.P.Adverbials occur with either). To account for Negative Prefixes, we need all these distinctions.

THE RESTRICTION ON NEGATIVE PREFIXES

Given this sub-categorisation of Sentence Adverbs into those that occur obligatorily with "That" complementisers and those that optionally take other complementisers, it seems possible to make the following generalisation.

a) Word-negative prefixes do not occur with "That" Complementiser Adverbials, unless the final semantic sum is positive. Thus, for example

(39) incontestably, indubitably, unarguably, unquestionably are allowed because they are really positive in sense whereas in almost all cases their un-negated roots are excluded.

(40) \*Questionably John went home at five o'clock.

b) The Adverbs that do occur with negative suffixes are those defined by the frame (37), i.e. those that arise as an Adverbial with the abstract verb turn out.

(41) It turned out unsurprisingly for him that he won the first prize.

c) There appears to be a condition that precludes negative affixes from all other Sentence Adverbials.

(42) \*Impossibly, he escaped at his first attempt

though they appear in their presumed sources

(43) For him to escape at his first attempt was impossible.

Gaps in Productivity

The Sentence Adverbials of (44) appear to be relatable to those of (45)

(44) [Reportedly] Mary spoke to no one on that  
day [allegedly]  
[supposedly]

(45) [It is reported] that Mary spoke to no one on  
that day

[It is alleged]  
[It is supposed.]

The syntactic correlation gains support from the fact that structurally it is very similar to that we have supposed to underlie the other Sentential Predicate Adverbials. The following, however, are not acceptable.

(46) \*Claimedly, John broke only two glasses.  
\*Saidly

Though these too appear in the putative source construction (45). In the course of this investigation I can find no real evidence for the supposition that Sentence Adverbials is a category of the Sentence in which it appears in surface structure. As will be seen subsequently, in all cases it is more profitable to assume that the Sentence Adverbial is the category Adjective introduced by transformation from one

sentence into another. If this is correct, there must be some constraint on the process that converts (45) sentences into those of (44) in order that the ungrammatical (46) should be so characterised. As the Grammar is presently formulated I can discover no constraint that will perform this function. I can therefore only suggest that there must be other processes in the grammar than those posited by Chomsky in "Aspects". For example, there must be a process such that lexical substitution might occur more than once in a derivation. By this process the sentences of (45) might be lexically specified at the stage of the first Lexical substitution. However, the lexemes, reportedly, allegedly would also appear in the lexicon but with the specification that they are substitutable for a string of lexemes, in this case, the whole sentence "It is reported that", a substitution which occurs, say, at a much later stage in the derivation. Ungrammatical forms such as \*claimedly and \*saidly, which as far as can be seen are accidental gaps in the system, are excluded not by any process, but simply by there not being any entry in the lexicon for these ungrammatical forms.

However, this is enough of speculation. It must be admitted that at the moment, and given the assumptions about the model that I have accepted, I know of no way of generating (44) without also producing (46).

The Case of the Ambivalent Adjective.

Before one can properly explain this problem it is necessary to make clear that there are types of Sentence Adverbial other than the Sentential Predicate. Amongst these are the Subject-Selected Sentence Adverbial. (47) is an example of this type

(47) Craftily, Harcourt gave a false name when he entered.

It is generally assumed that (47) is relatable syntactically to (48)

(48) It was crafty of Harcourt to give a false name when he entered.

Certain adjectives are ambivalent, in that they can be predicated of both animate and inanimate nouns. They can, in consequence, occur in the putative source sentences of both the Sentential Predicate and the Subject-Selected Sentence Adverbial.

(49) That Mary stole the cake is right

(50) It was right of Mary to steal the cake.

Other adjectives of this sort are correct, wrong, false.

These adjectives give the following sentence Adverbials

(51) Rightly, Mary stole the cake

but this semantically corresponds not to (49) but to the Subject-Selected meaning of (50). One naturally asks why this should be so.

It can reasonably be asked whether these adjectives are in Deep Structure the predicates of a proposition as is shown in (49). An analogous, though not identical, situation pertains to the adjective true. It is generally considered predicable of a proposition as in (52).

(52) That he was accused of parricide is true.  
yet as a Sentence Adverbial truly is animate, and is used as a Performative Adverbial.

(53) Truly, he was accused of parricide.

To recapitulate, it appears to be that Sentential Predicate Adverbials have underlying them two slightly differing structures.

(54) a) S -BE- Adj  
N.P.

b) S - turn out - Adj. Phrase  
N.P.

The differences are two types a) contains the verb BE and a simple Adjective whereas type b) is characterised by an abstract verb of change which is followed by an Adjective Phrase. By positing this underlying difference it will be recalled, certain restrictions were naturally accounted for. In particular that in type b) Adverbials there was no restriction on negative affixes or on Attributive modification, nor on complements.

Given these underlying differences it could then be assumed that the same raising transformation deleted the verbs BE and turn out and raised the embedded V.P. onto these vacated nodes.

This analysis has admittedly failed to solve several problems, some of which I have discussed. In particular, it gives no account of why the following underlying sentences do not produce acceptable Sentence Adverbials,

(55) That Mary stole the cake is right

(56) It is said that John broke two glasses

Not all the Sentence Adverbials as defined by the criteria given at the beginning of this chapter can be accounted for by assuming there to be at the Deepest Level the structure of Fig(2), though it now seems possible that at a certain stage of Derived Structure some of them acquire this structure.

In order to represent their syntactic properties adequately I have found it necessary to recognise Adverbials arising from different Deep Structure sources and I have named them

a) The Subject-Selected Sentence Adverbial

(57) Intelligently, John stayed at home that day

b) The Performative Sentence Adverbial

(58) Frankly, did you take it?

c) The Attributive Sentence Adverbial

(59) Really, it was John who did it.

THE SUBJECT SELECTED SENTENCE ADVERBIAL

Certain Sentence Adverbials appear to be selected in accordance with the certain features of the subject of the sentence. Observe that Obviously may occur in sentences with both animate or inanimate subjects

(60) Obviously ( John ) sank to the bottom  
                   (                    ) immediately  
                   (the stone)

whereas, the adverb intelligently is governed by selectional restrictions which confine it to sentences with an animate subject.

(61) Intelligently (John ) fell on the soft  
                           (                    ) ground.  
                           (\*the stone)

There are reasons to believe that this property cannot be simply expressed in terms of selectional restrictions holding between subject and Sentence Adverbial. Firstly, because it would be a rather novel selectional restriction which sub-categorises the Adverbial by subject or vice versa and secondly, as will be seen, it presupposes that at the stage of selectional restrictions being relevant (i.e. at lexical insertion) the Sentence Adverbial and the Subject N.P. are in the same Sentence. It seems desirable, however, to relate (61) to (62).

(62) It was intelligent of John to fall on the soft ground.

and therefore to suppose that intelligent is brought in from another S. A further advantage of this theory would be that the selectional restriction with which we are here concerned could thereby be expressed across noun and qualifying adjective, in other words by a mechanism that is highly justified.

In order to explore the possibilities of deriving (61) from a structure such as (62) we must first consider what the source structure of (62) might be. If we assume it to be that of Fig.(7)

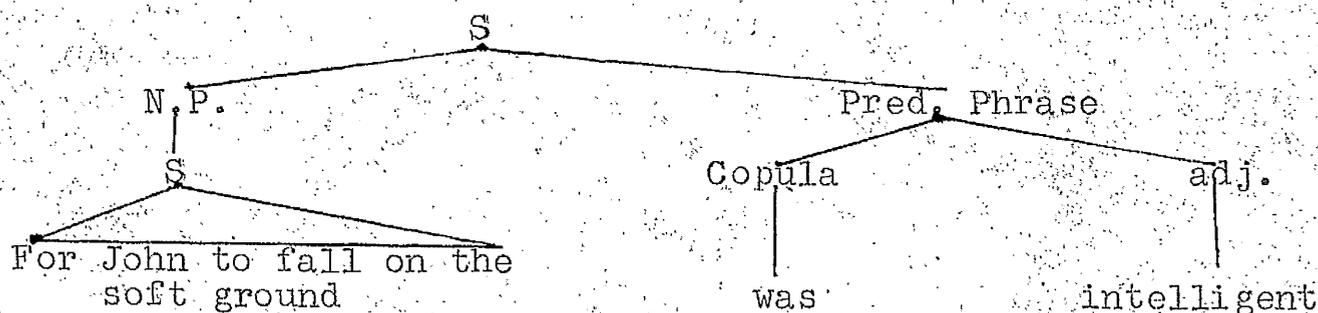


Fig (7)

at the Deepest Level we cannot account for Selectional restrictions and furthermore although we might devise a formulation that would yield the right surface sentence, it would be difficult to block.

(63) \*It was obvious of John to fall on the soft ground.

There is another sentence to be related to (62) namely (64); which I think hints at the true underlying structure of (61).

(64) For John to fall on the soft ground was intelligent of him.

Such a sentence, if taken as source, has the advantage of permitting the Selectional restrictions to operate over the Adjective (i.e. intelligent) and the nominal phrase "of him", which must be identical to the subject N.P. In other words there is no grammatical structure.

(65) \*For John to fall on the soft ground was intelligent of Mary.

This source may be said therefore to explicate the structural relationships holding between the eventual output

(66) Intelligently, John fell on the soft ground. It states that intelligently really refers to John, or in more general terms; that any Subject-Selected Sentence Adverbial will always refer to the subject of the sentence, and it provides a structure over which the selectional restrictions involved could feasibly work. There are certain problems involved with the analysis of (64) itself, and although this might be considered as falling outside the scope of this thesis, they certainly bear mentioning.

One problem which is posed is whether to derive (60) directly by the Base Rules. Can the phrase intelligent of him be reasonably considered as being a direct reflection of the Deep Structure or must it be transformationally derived? This in turn can only be decided if a convincing derivation for this phrase can be posited. I have a proposal concerning such a derivation.

Consider firstly that the structural relationship of the phrase intelligent of him which we assume to arise from intelligent of John, It exactly reflects the relationship subject-predicate in a copula sentence as in

(67) John is intelligent

That this should be so is borne out by the fact that the selectional restrictions that operate over subject and predicate in a copular sentence also pertain to the phrase. In other words if for these reasons

(68) Mary is effeminate

is considered as infringing selectional restrictions so too does the phrase

(69) ...was effeminate of her

If, therefore, this phrase has a Deeper Structure, it might be reasonably considered to be a copular sentence.

Again, the relationship between "for John to fall on the soft ground" on the one hand and intelligent of him on the other appears to form the terms of an "equation-type" structure, similar to  $x=y$ , which is often realised in natural language by the copular sentence, e.g. to see is to believe.

The above observations suggest therefore that a possible underlying structure might be

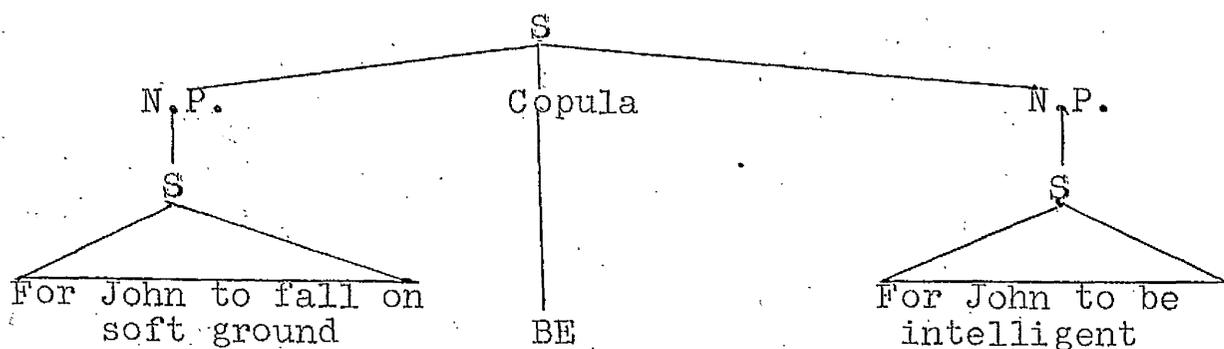


Fig (8)

I have assumed that the complementiser in both sentences is for-to, since it seems to me that equation type sentences are restricted to using either for-to or Poss-ing, i.e. there is no sentence (70)

(70) \*That John has won the race is that he has beaten Paul  
 is  
 and/further subject to the condition that the same complementiser is used on either side of the equation.

- (71) i. Seeing is believing  
 ii. \*Seeing is to believe

If the Deep Structure of (62) is that of Fig (8) the following Transformations might produce the desired effect.

#### COPULA SENTENCE RE-ORDERING.

This transformation would convert

(72) John be intelligent  $\implies$  Intelligent of John

Though seemingly ad hoc, this transformation is not without some motivation. Consider the expressions. That fool of a man. It may be of course that this transformation is unnecessary if we combine Fillmore's and Bach's proposals,<sup>8</sup> i.e. intelligent of John may be the deepest structure.

#### EQUI-NOUN PHRASE DELETION

This works on the output of the above, that is, on sentences of the structure of (73)

(73) For John to fall on the soft ground was intelligent of John.

Equi-N.P. Deletion functions in such a way as to delete the second token of John, and converts structure (A) of Fig (9) into structure (B).

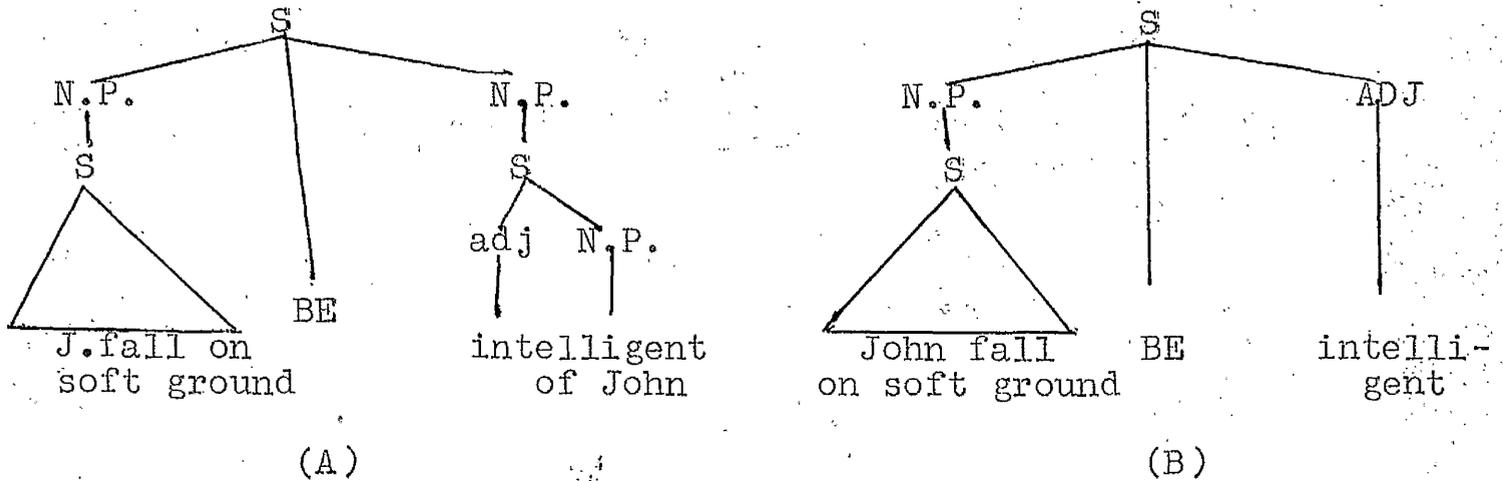


Fig (9)

The deletion of John and the N.P. node leaves an S node which does not branch, which is deleted by the Ross convention.<sup>9</sup> If the N.P. node dominating Adj is similarly deleted, then we are left with the structure underlying the Sentential Predicate Adverbial and it can be assumed that from this stage the same transformations operate to produce adverbialisation.

Although the above analysis seems to me to be quite motivated there are certain questions related to these structures which I do not think are adequately accounted for and which I cannot claim to understand. These difficulties do not however affect the thesis that (61) is derived from (62) but only my account of the source of (62).

Consider, for example, that there is a restriction that Subject-Selected Sentence Adverbials do not occur in Passive Sentences.

(74) Intelligently John killed Paul before he could speak

(75) \*Intelligently, Paul was killed by John before he could speak.

In fact this restriction is much higher since the supposed source is also subject to it.

(76) \*For Paul to be killed by John was intelligent of him.

Yet another restriction which appears difficult to handle under my analysis is that which restricts the Adjectives that occur in a structure such as (62) to Role adjectives (i.e. Mood adjectives are not permitted). Hence the ungrammaticality of

- (77) i. \*It was angry of Mary to run off to Spain  
 ii. \*It was furious of Paul to hit Peter

#### Other Subject-Selected-Sentence Adverbials.

In chapter 4, I discussed certain Adverbials that might be taken for Manner Adverbials but which, I concluded, were in effect Sentence Adverbials. There were two types: Those based on Verbal roots ending in -ing

(77) Jokingly, John said that he had wanted to eat them.

The other type was composed of "Mood" Adjectives, that is adjectives which denote a temporary state of mind of the subject.

(78) John stayed angrily at home all day.

That they should be considered Sentence Adverbials, and in terms of my theory produced by the Base Rules of a Sentence external to the proposition with which they are associated in Surface Structure, is suggested by the fact that

a) They occur with copular type verbs, e.g. remain and even with certain non-volatives (though not with Be)

(79) John fell furiously to the floor

b) They do not seem to occur acceptably with Attributive Adverbs

(80) John stayed extremely angrily at home all day.

c) They occur in Sentence-initial position unemphatically, though I remarked that in the case of the Mood Adverbials it seemed more acceptable as a simple Adjective in sentence-initial and final position.

(81)? Angrily John stayed at home all day

(82) Angry, John stayed at home all day.

In both the case of the -in+LY and the Mood Adverbial a reasonable external sentence would appear to be either a temporal clause or a non-restrictive relative clause.

That is either (83) or (84).

(83) John, who was smiling, said that he wanted to eat them.

(84) i. John was smiling when he said that he wanted to eat them.

ii. While smiling, John said that he wanted to eat them.

It seems that there is slightly more justification for a sentence embodying a Temporal Clause because there appears to be a time relationship between the Adverbial and the main proposition which cannot really be expressed by a relative clause and secondly because a temporal clause would define the lexemes that were capable of entering into such a relationship. Were it a relative clause we should have no principled way of excluding the Permanent quality (Role) adjectives e.g. intelligent which, though they occur as Sentence Adverbials, as has just been discussed, do so under different restrictions.

(85) \*Intelligent, John stayed at home all day.

Possible Temporal source sentences are those of (84)i and ii. I must confess, that for some reason the former seems to me to be a neater paraphrase, but this would involve the assumption that it is the main verb that becomes the Sentence Adverbial and I know of no non ad hoc method of achieving this. On the other hand there is ample precedent for the deletion of the temporal conjunction.

(86) Sitting on a fence, he was surprised by a wolf.

THE PERFORMATIVE ADVERBIAL

The Sentence Adverbials in (87) and (88)

(87) Sincerely, he is a good fellow.

(88) Frankly, did you steal the cake?

though apparently not selectionally characterised as being subject selected, are none the less, if we are to credit our intuition, in some relationship with the "Speaker" in the case of (87) with the "Person Spoken To" in (88). This relationship is made explicit by the respective paraphrases.

(89) I am being sincere when I say he is a good fellow.

(90) You be frank when you answer whether you stole the cake.

There are then forms that are related to the first and second persons but none that may be interpreted as qualifying the third person. There is no form for which (91) would be a paraphrase.

(91) He is being sincere when he says that he did it.

Considered on purely formal grounds one is faced with the problem of finding a new analysis since neither of the previous sources we have posited for Sentence Adverbials will do.

For reasons therefore both of syntactic necessity and of Semantic desirability, it is worthwhile exploring the possibility of whether forms such as (89) and (90) underlie (87) and (88).

For this to be the case it must be assumed that the pre-propositional statements "I am being sincere when I say" and "You be frank when you answer" are, except for the Adjectives, deleted. Observe that a deletion of this sort would not raise any serious theoretical problem, since in this case it is certainly uniquely recoverable.

It becomes clear now that the hypothesis concerning these adverbials that is here being entertained is remarkably close to the "Performative Hypothesis" proposed by Boyd, Thorne (1968)<sup>10</sup> and motivated by phenomena external to those we are considering now.

What I have named the "Performative Hypothesis" suggests that all utterances are in Deep Structure preceded by a statement concerning how the utterance is to be interpreted, i.e. whether it is a question, a statement, or a question. This "Performative Statement" is in fact realised in D.S. by a performative verb with either a first or second person subject.

If the Performative Hypothesis were correct than it would explain why the statements which contain the Adverbials are deleted, i.e. it supposes that Performative Deletion is a general process and if these deletions occur why the Adverbial should be exempted, since it is the only element which is not uniquely recoverable. More importantly, it would account neatly for the fact that these Adverbials have semantically only a first and second person interpretation.

#### SOURCE IS A HIGHER SENTENCE

It can I think be shown that these adverbials do not arise in the sentence in which they occur in Surface Structure, by the following observation: They do not go down into embedded Sentences. The following are not therefore acceptable as Performative Adverbials

(92) She said that John had sincerely gone to school

(93) I like you truly to go to school on Mondays.

If they began their derivation as members of the surface sentence in which they normally occur, then it would be almost impossible to account for this fact. However, if we assume that they do arise in an Upper sentence, then this can be more easily explained.

The difficulty relating to the analysis of Performative Adverbials is that of constraining the process. For example we do not want the grammar necessarily to produce

(94) Carefully, did you eat the cake?

although the source as hitherto posited can contain such an Adverbial.

Firstly, of course, some decision must be reached as to what constitutes a Performative Adverbial and even this is not so simple as it might appear. Thus, for example, Greenbaum (1969) devotes a whole chapter to these Adverbials, which he calls "Style Disjuncts" and concludes that the following expressions must be so classified.

(95) bluntly, briefly, broadly, candidly, confidentially, crudely, generally, literally, metaphorically, paradoxically, relatively, truly, specifically.

I have assumed that one of the criterial tests for a Performative Adverbial is that it is either associated with a first or second person verb of speaking. Some of those given by Greenbaum would appear to me to fail according to this criterion.

(96) i.?Metaphorically, did John eat the cake.

ii.?Paradoxically, are you happy here

iii.?Relatively, is this a house?

iv.?Generally, is he eating now?



(101) \*Carefully, did you eat the cake?

The nature of this restriction is a puzzle. Although the restriction can be expressed as a co-occurrence restriction between the abstract Performative Verb and the Adjective in whose complement it occurs, there is no particular motivation for this restriction.

By the test frames of (97), it was decided to relegate to another class, Neo-Performatives, those Sentence Adverbials, which appeared to be associated with a deleted verb of saying but which did not conform to the test above. This procedure did not solve any problems; it only decided that a different solution must be found for this group. Consider, for example the following sentences taken from Greenbaum (1969).

- (102) i. Briefly, India faces famine because there too are many people and too little food.  
 ii. But, strictly, all the Old Testament is prophetic of Jesus Christ.  
 iii. Seriously, we haven't heard much of our two heroes lately, have we?

Most of these can be semantically associated with a verb of saying, but except for possibly seriously, are associable only with first person statements. Like the Performatives they do not go down into lower sentences (other than in reported speech).

Observe that, in order to distinguish between these adverbials and the true Performatives, it is necessary to suppose two deletion transformations. This may in fact turn out to be the situation, but another possible analysis can also be given.

It is simpler to assume that the deleted verb of saying, that is the Performative Verb, is the same both for the Performative as defined by (97) & (98) and for the residual Neo-Performatives. The distinction between the two can be characterised in terms of the notion Subject-selected. The true Performative Adverbials, as has already been remarked, are all subject-selected. The Neo-Performatives are "Natural Adverbials".<sup>11</sup> If I am correct, in this supposition, it seems possible to account for their differences in distribution, i.e. the fact that only the true Performative occurs in questions in terms of the differing analyses to be given to Subject-selected and Natural Adverbials. Thus, for example, the true Performative Adverbial, may indeed have the underlying source (103) but the neo-Performative Adverbial may be excluded by the fact that the underlying structure is one that does not admit Natural Adverbials, like that of (103)

(103) Be honest when you answer whether.

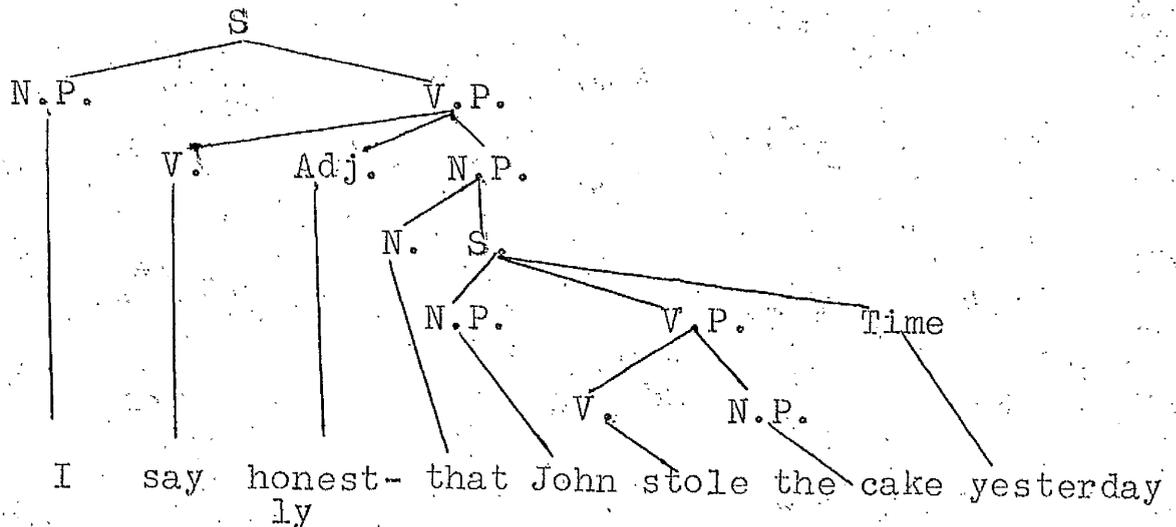
The Derived Structure of the Performative Adverbials appears to be slightly different from that of the Sentential Predicate Adverbials, if one is to judge by the potential pause between the Adverbial and the rest of the proposition.

(10<sup>4</sup>) Honestly, John stole the cake yesterday

Neither the Subject-Selected nor the Sentential Predicate Sentence Adverbials may occur with such an extreme intonational gap.

The implications for the analysis of Derived Structure is that the structural relationship of the Performative to the rest of the sentence is different from that of the other Adverbials.

This, I believe to be in accord with my analysis. I have assumed that the structure underlying (10<sup>4</sup>) is that of Fig (10) subsequent to adverbialisation within the Performative sentence.



(Fig (10))

Unlike in the cases of the Sentential Predicate and Subject-Selected Sentence Adverbials, the transformation does not place one sentence within the other but merely deletes certain elements of the upper sentence. At some stage therefore the Derived Structure must be that of Fig (11).

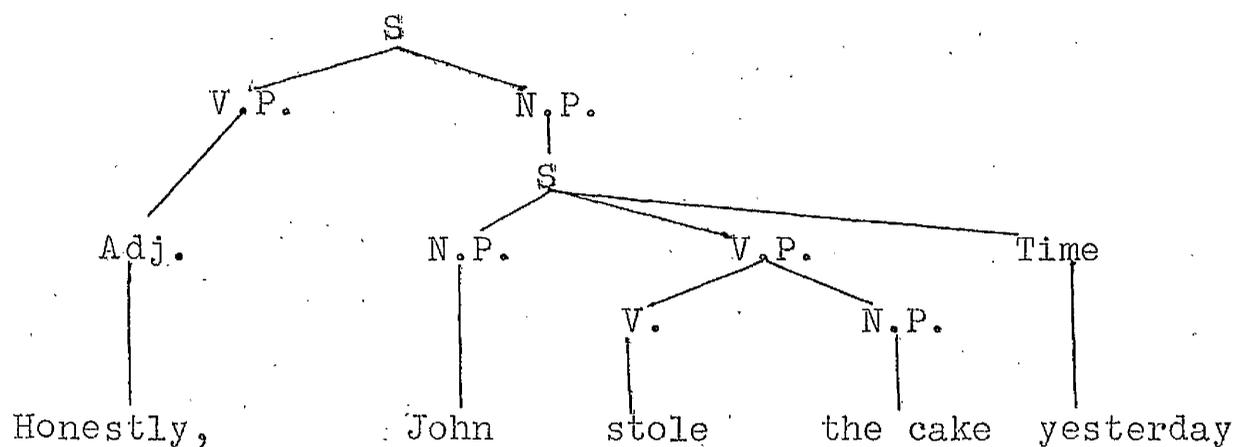


Fig (11)

In other words in the structure underlying (10<sup>4</sup>), honestly is in a different Sentence from the rest of the proposition. This would then account naturally for the greater pause potential. We have seen therefore that there are certain Sentence Adverbials which are characterised as being relatable semantically with verbs of saying, with either a first or second person subject. Syntactically, there appears to be a bigger constituent gap between these Adverbials and the rest of the sentence than with other Sentence Adverbials.

These Adverbials can be sub-categorised into those that occur freely in both questions and statements, e.g. honestly, frankly and those which can occur only in a statement, generally, briefly. These facts appear to correlate with the distinction noted earlier between subject-selected and natural Manner Adverbials. This would appear to make it possible to analyse them both as associated with Performative Verbs. It may however be the case that the deletion transformation is not the same in both cases. The first group may be associated with true Performative Verbs and the second group with another type of deleted verb. Until this is demonstrated it seems simpler to opt for a solution that explicates the difference between the two types as being merely a difference between subject-selected and Natural Adverbials.

The constraints on the possible Performative Adverbials seem mainly to involve the Subject-Selected Performatives. This restriction can be stated as a selectional one, though, I must confess, rather ad hocly. We must however block

(105) \*Carefully, did you do it?

#### THE ATTRIBUTIVE SENTENCE ADVERBIAL

Consider now the analysis to be given to the following set of adverbials

(106) Actually it was his sister who did it  
 really  
 literally

They do not support analysis as Sentential Predicate Adverbials since there is no acceptable source

(107) \*That his sister did it is actual  
real  
literal

One might be tempted to ignore this as a superficial difference, given its similarity to the Sentential Predicate Adverbial in that they are both impersonal but there is a further obstacle and that is that they resemble Performative Adverbials in that they occur in questions

(108) Did she really tell the truth?

but they differ from the Performative Adverbial in that they are not semantically associated with a first or second person subject and there appear to be few restrictions, if any, on their occurring in embedded sentences.

(109) I asked him to actually go home  
really  
literally

We appear to be confronted by an Adverbial with very mixed characteristics. Furthermore, it appears to be the only type of Sentence Adverbial not subject to the restriction that it may not occur in imperative sentences.

(110) i. Actually go home!

ii. Really hit him!

One might harbour some doubt as to whether it should be analysed as a Sentence Adverbial at all, in that this supposition involves assuming that it is brought in from an ex-

ternal sentence, but it should be noted that it conforms to most of the defining characteristics of Sentence Adverbials.

Firstly, it never occurs with a Degree type Attributive Adverbial.

(111) \*Very really, John spoke to Helen.

Significantly, this restriction is absolute for this type of Adverbial and an adequate analysis should account for this.

It appears to have the freedom of permutability normally associated with the Sentence Adverbial, occurring in Sentence initial, medial and final positions.

It occurs in copular sentences.

It plays no role in verbal sub-categorisation.

The above are all defining characteristics of the Sentence Adverbial.

The problem of analysis involves finding a solution that will reconcile the following characteristics.

i) That it has most of the properties of a Sentence Adverbial.

ii) That there is no paraphrase associated with any of the previously studied Adverbials that will serve as a putative underlying source.

(112) \*That John killed Peter is real.

iii) That it does go down into lower sentences and of particular importance does appear in imperative sentences.

In an attempt to understand the nature of these Adverbials consider the following sentence

(113) John was really happy in France.

It is ambiguous between two interpretations; those represented by (114)i and ii.

(114) i. John was very happy in France.

ii. It is true that John was happy in France.

Observe, however, that there is no ambiguity if the Adjective is in the comparative degree.

(115) John was really happier in France than in Spain.

The interpretation associated with (115) is that of (114)ii.

These facts can be accounted for if we make the assumption that the Adverbs of this set all arise as Attributive Adverbials. That is, if the rule of the Base which introduces adjectives is (116)

(116) Adj. Phrase  $\rightarrow$  (Adj)<sub>i</sub>. adj<sub>2</sub>

then these adverbials can only occur as the optional adj.<sub>i</sub>.

This rule, however, would only account for interpretation (114)i. of the ambiguous (113). It must be assumed that in (113) there is a really that arises outside the Adjectival phrase in which happy occurs and that there is a process that associates the two in surface structure. It is the really that occurs in

(117) Really, John was happy in France.

Here really is in an upper copular sentence but again, it is the attributive adjective (i.e.  $adj_i$  of the rule (116) ) with the head adjective realised by the pro-form so.

The similarity with the Sentential Predicate Adverbial is explicated as the similarity between the structures of Fig (12).

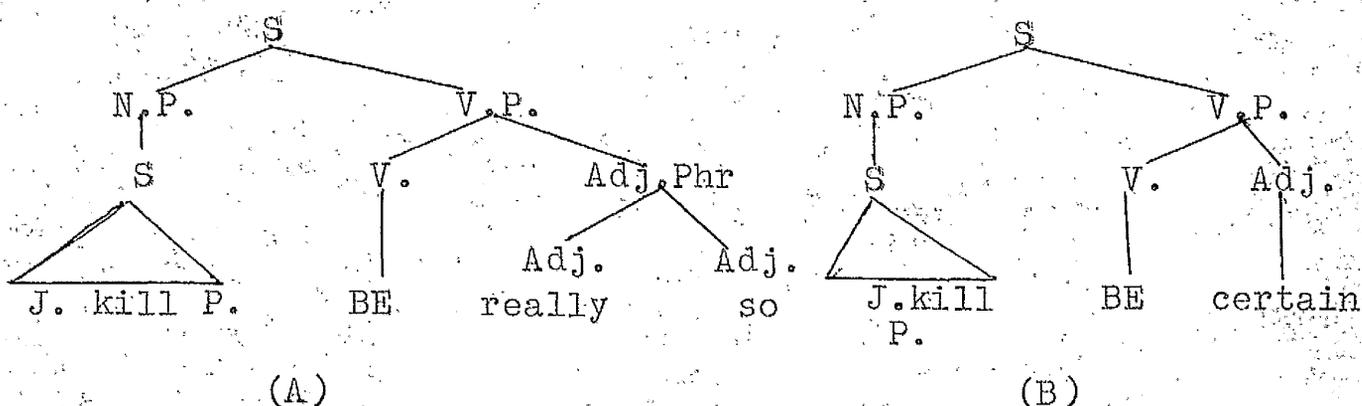


Fig (12)

The assumption that these Adverbials really arise as Attributive Adjectives therefore accounts for the following facts.

- a) That these Adverbials never occur themselves with Attributive Adverbial modification of any kind, is explained by the fact that they occupy the node which normally dominates the Attributive Adverbial. Hence, although we can get "very obviously" etc. \*Very really is absolutely unacceptable.

- b) It neatly accounts for the ambiguity of (113) and the lack of ambiguity of (115). In other words the ambiguity of (113) is due to the fact that besides being introduced from outside, the Adj. Phrase which dominated Happy can also occur with an attributive Adverbial.

In the case of the comparative sentence (115) the Attributive Adjective node is occupied already by the subordinated term of comparison as shown in Fig (13)

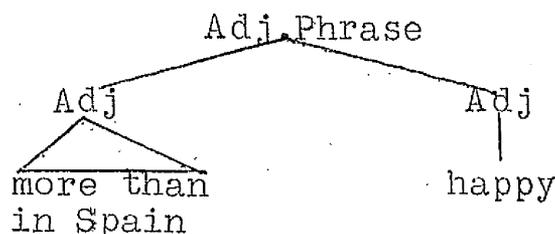


Fig (13)

- c) It gives a reasonable account of the fact that although we feel that these Adjectives function in some way as the predicates of a sentential proposition none of them can be directly predicated of a sentence.

(119) \*that John killed Peter is virtual

Before entertaining any hypotheses about how these Adverbials are brought into the lower sentence one must take cognisance of a certain restriction. The source for the Adverbial here being postulated is the node occupied by really in Fig (12)(A). It is however a node under which occur many other Adjectives which are not converted into Adverbs of this sort, e.g. extremely, quite, fairly, etc. What is the nature of such a restriction?

Let us note firstly that many of these Adverbs as attributives are restricted as to the Adjective they may modify. For example literally, virtually occur with happy but not with intelligent.

(120) He is a virtually happy man  
literally

(121) \*He is a literally intelligent man  
virtually

This distinction corresponds to the property of the Adjective being modified/<sup>and</sup> is discussed more fully in the Chapter on Degree Adverbials. Adjectives are either contradictory or contrary. A contradictory adjective is one which has a "break off" point. A thing is either it or not it. An extreme example of this is dead or male. These cannot therefore occur with the traditional Degree Adverb.

(122) \*John is extremely dead  
male

but occur with the "Degree intensifiers" completely, partially etc.

Observe one cannot say

(123) \*John is completely intelligent

but the alternative Degree adverbial is possible

(124) \*John is extremely intelligent.

Such Adjectives such as happy can be either 'contradictory' or its converse, 'contrary', and occur with both completely and extremely.

Now if we assume that the Adjective which is modified by the Attributive Adjective (eventually to be converted into the Sentence Attributive Adverbial) is marked for the feature+ contradictory and make this one of the conditions on the trans-  
formation then automatically/we exclude from becoming Sentence Adverbials other attributive Adverbials such as extremely, fairly, etc.

It should be noticed that by restricting this transformation to Attributive Adverbials that modify +contradictory adjectives, we are not really solving all our problems, since, although we thereby block, extremely, etc. from occurring as Sentence Adverbials, the condition being proposed suggests that Degree Intensifiers<sup>12</sup> can be Sentence Adverbials. This would appear untenable, since, as I attempt to show in Chapter 6 Degree Intensifiers like completely, partially involve verbal sub-categorisation, that is not all verbs can occur with them, whereas all verbs can occur with really etc.

Although I believe, that in the main my analysis is correct the nature of the restrictions on the process have still to be discovered.

The Transformational Mechanism.

Because of the comparatively unrestricted power of Transformations as presently conceived, it was impossible to define exactly the process which converted a structure such as

(125) That Bill likes porridge is obvious  
into (126) Obviously, Bill likes porridge.

It was not known whether the promoted V.P. was in fact attached to the node which originally dominated the copula or whether a new node was formed. Research, at present going on, may eventually provide us with a principled means of determining this, based on a more exact understanding of the power of a transformation.<sup>13</sup> I believe, however, that the situation is slightly clearer in the case of the Attributive Sentence Adverbial formation.

One principle, that which was implicit in certain suggestions of Chomsky and which appears to be supported by recent investigation, is that a permutation transformation can move some constituent in a Tree Structure and place it under another already existent node provided this node is realised

by a dummy element (i.e. pro-form). For example, in his REMARKS ON NOMINALISATION Chomsky argues that it is desirable to relate syntactically the pair of sentences of (127)

- (127) i. What John did was read a book about himself  
 ii. What John read was a book about himself.

This might be done, he claims, if we assumed they both had the following underlying structure

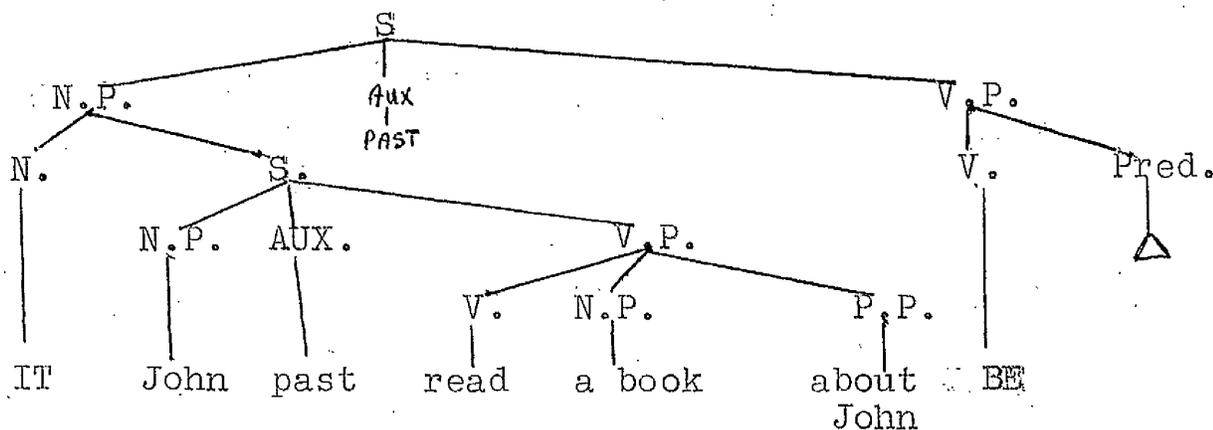


Fig (14)

In order to produce (127)ii.

"A new substitution transformation replaces the unspecified predicate by the object of the embedded sentence" and in order to derive (127)i.

".. the new substitution transformation replaces the unspecified predicate not by the object of the embedded sentence but by the whole verb phrase".

Let us recall that the structure underlying a sentence with an Attributive Adverbial was assumed to be as in Fig (15)

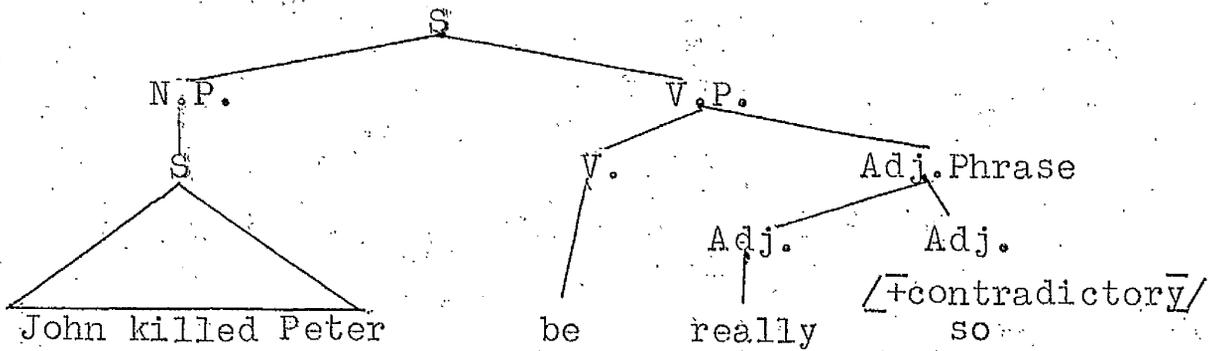


Fig (15)

It can be seen that this structure also contains a Dummy element realised by the right-hand Adjective of the Adjective Phrase, i.e. so. In accord with the transformational principle adumbrated above we might propose that the V.P. of the embedded sentence is placed in the position of the pro-adjective. There are certain facts relative to the derived structure of Sentence Adverbials that appear to support this contention.

Any satisfactory theory of these Adverbials must also account for the fact that really etc., are possibly constituents of the Verb Phrase. Contrast the distribution of these with the other Sentence Adverbials.

(128) \*John didn't honestly kill Peter  
 obviously  
 intelligently

(129) John didn't really kill Peter  
 literally

This restriction appears to correspond to different structural positions of these Adverbials and can be explained if really is taken to be a constituent of the V.P. and obviously as part of a higher constituent.

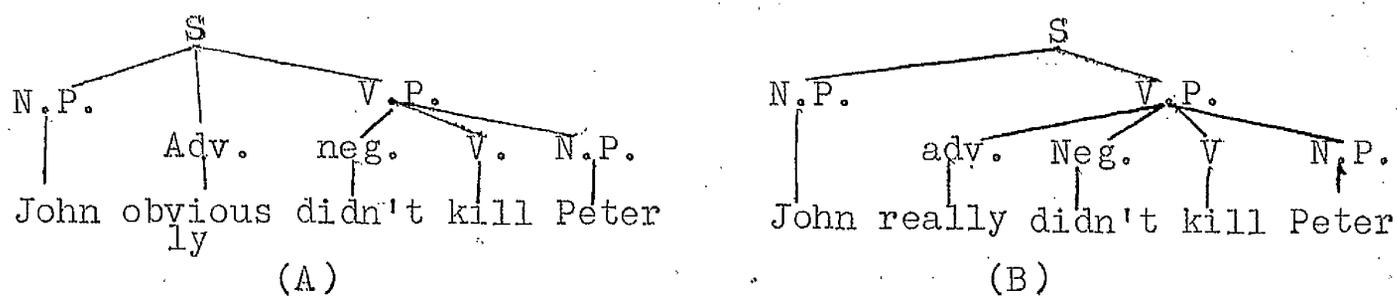


Fig (16)

Such an analysis would be compatible with the fact that really may co-occur with a Sentence adverbial if in medial position.

- (130) i. Obviously, John didn't really kill Peter  
 ii. John obviously didn't really kill Peter

but not if really occurs initially or finally

- (131) i.\*Obviously really John didn't kill Peter  
 ii.\*Really John obviously didn't kill Peter  
 iii.\*Really John didn't kill Peter obviously  
 iv. ?Obviously John didn't kill Peter really

Observe that this restriction is quite general. Not even a Manner Adverbial, which under certain conditions can be fronted, can co-occur in this position with a sentence adverbial.

(132) i. Slowly John played a cunning back-hand

ii. \*Obviously, slowly John played a cunning back-hand.

In other words it appears to be a condition of well-formedness that no Sentence may have more than one top-most adverbial, whatever its source.

Now if the transformation functions as I am suggesting and the V.P. is moved into the place of the dummy element, then in the derived structure really automatically becomes a constituent of the V.P.. It is also easier to assume that it originates in V.P. position and in the cases where it is sentence initial or sentence final, it had transformationally moved into these positions, since there is ample precedent for a transformation lifting a constituent into a higher one but none that I know of for the opposite. Thus, when a Sentential Predicate Adverbial such as obviously is placed into a sentence medial position it cannot intervene between any V.P. constituents but really can.

(133) i. \*John didn't obviously kill Peter.

ii. John didn't really kill Peter.

If really is transformationally permuted from outside the V.P. the statement of this condition would become entirely ad hoc.

SCOPE ADVERBIALS

There is a set of de-adjectival adverbials which I find very obscure, as far as their syntactic origins are concerned. I shall refer to these as "Scope Adverbials", since semantically they delimit the area over which a statement is to hold.

(134) i. Technically, the Irish should not really be considered English.

ii. Theoretically, water should boil at 100° Centigrade.

iii. Basically, a doughnut is a type of cake.

Greenbaum (1968) remarks that these adverbials are paraphrased by a phrase containing speaking and the adverb in question. Thus the adverbs in (134)i. & ii. correspond to (135)

(135) technically speaking, theoretically speaking.

though Greenbaum claims they do not correspond to the fuller paraphrases

(136) i. If I may speak technically, or,

ii. I am speaking theoretically.

I agree with Greenbaum's conclusion here, though perhaps for the wrong reason, since he would claim that (136) provides the source for the Performative Adverbials, i.e. those adverbials he terms "Style Disjuncts".

A nearer paraphrase seems to be provided with an expression containing the phrase point of view

(137) From the technical point of view, etc.  
 which implies that it co-occurs with a verb of vision. If  
 this is so it explains the ambiguity contained in the adverb  
 of (138).

(138) He looks at things technically  
 which seems to me to mean either in a technical way or from a  
 technical standpoint.

Whatever the source one must account for the fact that these  
 Adverbials never occur with Attributive modifiers.

(139) \*Very technically, the Irish should not be  
 considered English.

They are characterised by another strange syntactic property,  
 they can occur immediately after a Sentence adverbial.

(140) Certainly, technically, John is still English  
 This is the only case I know of, of two de-adjectival adverbials  
 being allowed to co-occur initially in a Sentence.

(141) i. \*Obviously, stupidly, John stayed at home.

ii. \*Certainly, slowly he climbed the tree.

It is also capable of appearing in non-root<sup>14</sup> sentences

(142) I want him to technically remain a foreigner  
 whilst enjoying the privileges of citizenship.

In syntactic properties it is therefore very close to the  
 Attributive Sentence Adverbial. It would therefore not be un-

reasonable to consider the paraphrase (143) as a possible source.

(143) It is technically so that the Irish should not be considered English.

It is as well to point out another class of de-adjectival Adverbial which may easily be confused with the Scope Adverbial. Contrast the sentences of (144).

(144). i. Technically, John is a good player.

ii. Technically, John is a player.

The former is not a Scope Adverbial but is really associated with the adjective good, technically good. I have discussed similar expressions in the Chapter on Degree Adverbials.

#### CONSTRAINTS ON SENTENCE ADVERBIALS

There are certain well-known restrictions on the occurrence of Sentence Adverbials. Few explanations have been devised to account for them. The most widely held, that proposed by Katz and Postal (1964)<sup>15</sup> is invalid, I claim, not because it is inefficient but because it is really inapplicable. Most of these restrictions still remain impenetrable to me. In this section, however, I attempt to classify and state these restrictions in terms of the different types of Adverbial

that have been defined by my analysis. In general the most I can claim is that my analysis provides the syntactic distinctions which appear to be relevant to the statement of these constraints.

The following are the principal constraints:-

- a) The Embedding Constraint: Most Sentence Adverbials do not occur in Embedded Sentences.
- b) The Interrogative and Imperative Constraint: Only certain Sentence Adverbials can occur in Interrogative and Imperative Sentences.
- c) The occurrence of NOT with Sentence Adverbials.
- d) The constraint on the occurrence of Attributive modifiers with Sentence Adverbials.

Finally there is a constraint that applies to Sentence Adverbials but which I consider is far more general, and treat in Chapter 8.

- e) The One-per-Sentence constraint. This relates to the fact that Sentences are really constrained to having only one Sentence Adverbial in Sentence initial position.

Any analysis of Sentence Adverbials must provide the framework for the statement of the restrictions that govern the occurrence of these Adverbials, and will be proportionately more highly valued the more naturally the statement it permits.



The Attributive Sentence Adverbial is the exception and can occur in this environment.

(146) I want John to really kill Peter.

It is widely believed that this restriction does not hold for "That Complementisers". The following (147) are therefore grammatical.

(147) He said that John had obviously gone away  
stupidly

The exception, in this case appears to be the Performative Adverbial.

(148) \*He said that John had frankly gone away.

I harbour certain doubts about the apparent freedom of occurrence with "That Complements". Those of (149) seem to me of very dubious grammaticality.

(149)i. ?That John had obviously killed Peter was  
suggested by the evidence.

ii. ?That Mary had certainly gone to Spain  
surprised us all.

iii. ?I hoped that John would certainly arrive  
tonight. indubitably

Though, again, if those of (149) are ungrammatical it appears to be the case that the Subject-Selected Sentence Adverbial, may occur in these complements.

(150)i. I hoped that John would intelligently fall on  
the soft ground.

ii. I believed that Mary would stupidly go to Spain.

though there is some doubt about their relationship to the Subject-Selected Sentence Adverbials discussed earlier<sup>16</sup>.

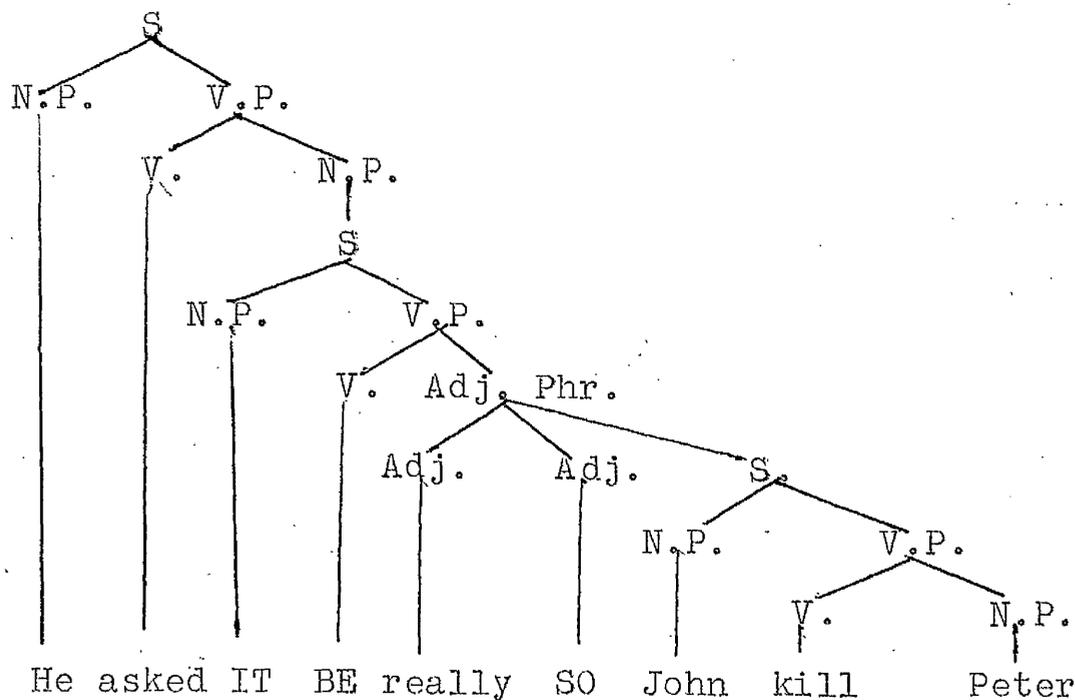
There appear then to be at least two types of "That Complements". The one is the Direct Object associated with indirect Statement or "Reported Speech" and which permit Sentence Adverbials.

(The Attributive Sentence Adverbial, i.e. really can, of course, occur in both types). The restrictions are therefore far more complex than hitherto supposed.

Compare now the underlying structures of the two sentences.

(151) He asked for John to really kill Peter.

(152) \*He asked for John to obviously kill Peter.



(Fig (17))

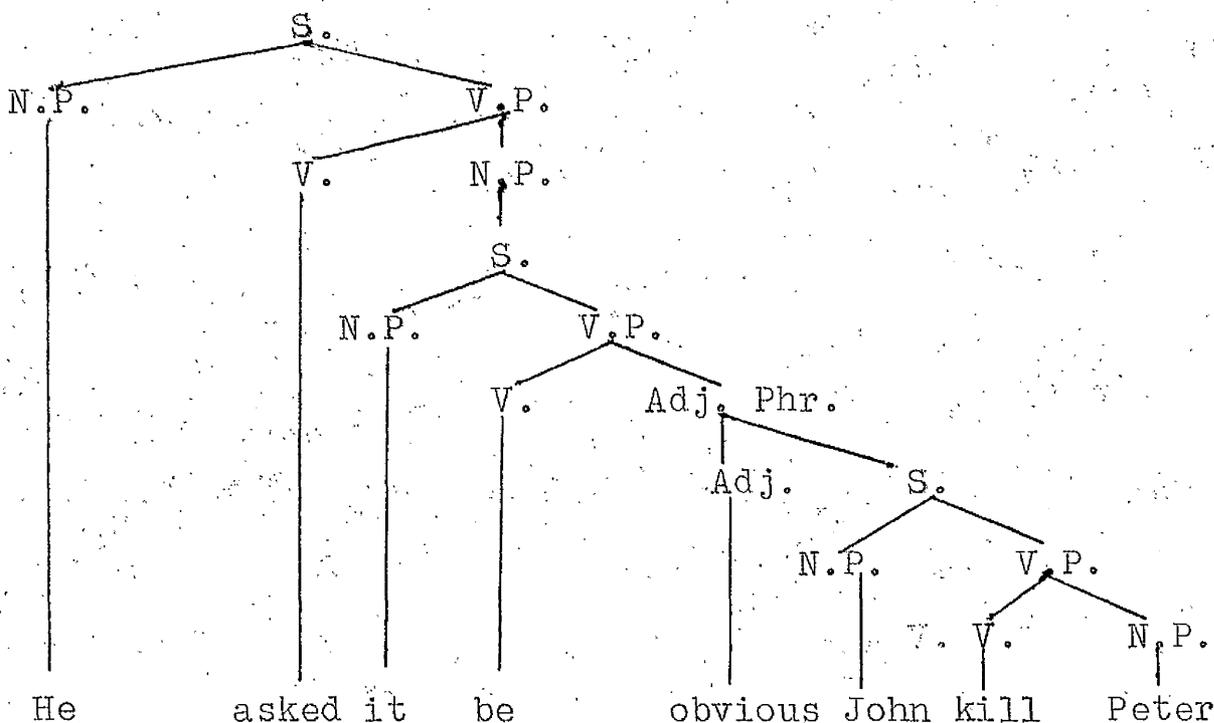


Fig (18)

What we require is that "adverbialisation" be permitted for (151) and blocked in the case of (152). It can be said for my analysis, in that it considers that the raising transformation for (151) to be different from that of (152), that it permits the statement of this restriction, though, let us be frank, I know of no particular external justification for any restriction that may be so stated. For example, if the Sentential Predicate V.P. promotion transformation normally raises the verb kill and places it under the node where the verb BE is in Fig (17), the restriction can be stated that V.P. promotion cannot occur onto the BE node in case it is embedded.

Informally at least this restriction is stateable in the framework of J. Edmonds<sup>17</sup> distinction between Root and Structure Preserving Transformations. A Root Sentence is either

- a) A Topmost S
- b) An S dominated by a topmost S
- c) An S which is a Reported Statement.

When immediately dominated by a Root S a transformation may distort the structure defined by the Base Rules whereas in non-Root S the transformation must be structure preserving.

Now if we define the transformation I have called V.P. Promotion and which is used to produce Sentential Predicate Adverbials, as a Root Transformation, we automatically predict the environments in which it may and may not appear. Thus it occurs in the environments a) b) and c) above.

- (153) i. Certainly, John killed Peter (topmost S)
  - ii. John probably was afraid and Mary was certainly unhappy. (S dominated by topmost S)
  - iii. He said that John certainly was afraid. (S which is a reported statement)

It will not occur in other embedded Sentences precisely because only Structure Preserving Transformations occur in non Root Sentences. Hence the ungrammaticality of (151). The transformation V.P. Promotion, as I have formulated it, is certainly non-Structure Preserving. Consider however the case of the Attributive Adverbial Formation Transformation. This

does occur in non-Root Sentences. To be in accord with Emond's theory this must be a Structure Preserving Transformation. Can the analysis I have given really be described as Structure Preserving? The process is one which changes Fig (19) to Fig (20).

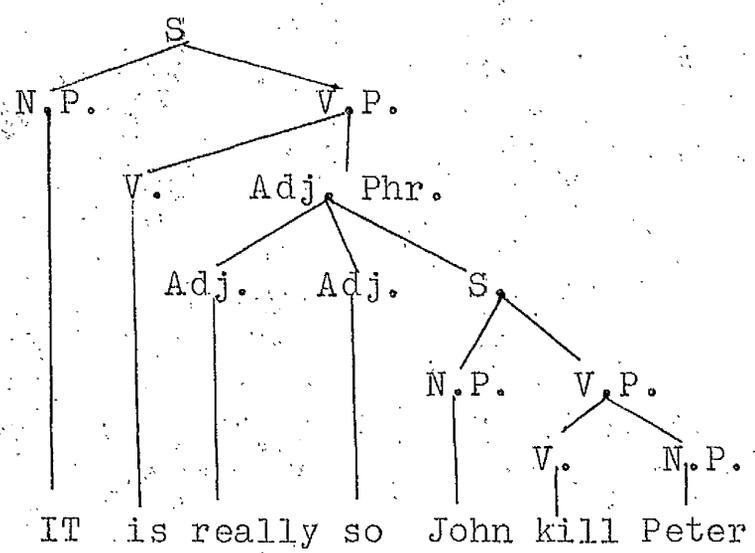


Fig (19)

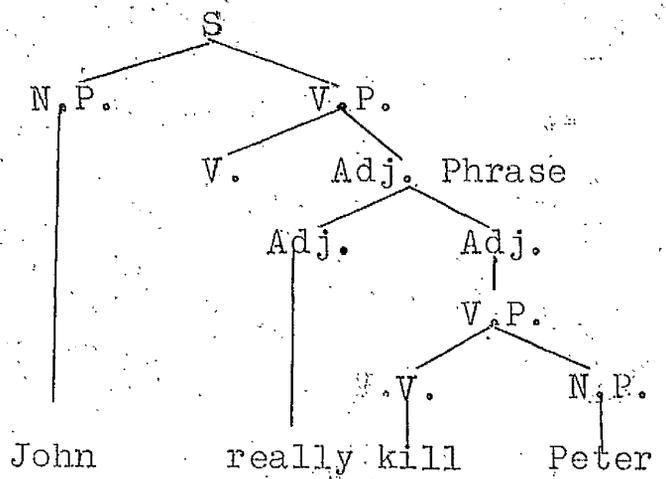


Fig (20)

Certainly, the Derived structure represented by Fig (20) does not appear to conform to what Emonds understands by a Preserved Structure.

To recapitulate; it appears that the environments from which Sentential Predicate Adverbials are excluded, are all embedded sentences except those of "Reported Speech". The environments in which they appear correspond to what J. Emonds has termed "Root S". If this is so the restriction can be accounted for in terms of a structure-preserving condition which all transformations must fulfil in non-root Ss. Since my formulation of V.P. promotion appears to be non-structure preserving, this involves little difficulty. The problem is posed however by my analysis of really. Since really is not subject to this restriction it must be supposed for consistency's sake that it is structure preserving. Now, if the structure preserving condition is correct either my analysis is wrong, or perhaps wrongly formulated, or the properties of a "Structure Preserving Transformation" has yet to be accurately defined.

#### The Occurrence of "NOT" with Sentence Adverbials

Compare the two sentences below. Each contains a Sentential Predicate Adverbial pre-modified by Not, yet, in only one of the cases can it be considered grammatical.

(154) Not surprisingly, John went to Italy after all.

(155) \*Not obviously, John went to Italy after all.

There is nothing that blocks not occurring in the sentences that are presumed to underlie these adverbials. Nor, does it seem possible to express this restriction in terms of a rule-feature. I believe, however, it is possible, under my analysis to predict fairly accurately the set of Adverbials with which not is likely to be acceptable. I have posited two slightly differing sources for Sentential Predicate Adverbials. The one assumed a purely stative copula verb in the upper sentence, i.e. Fig (I)A the other was based on a similar structure but with a feature of change expressible by the verb turn out.

(156) It turned out \_\_\_\_\_ (for us) That S.

My claim is that, if (156) is taken to be the source for these Adverbials then the set of Adverbials that occur with not is made up of those adjectives that may appear in the frame (156).

It should be remarked that it may be found that certain Adverbs that occur in this frame do not sound very natural with simply not in front. I think this can be shown to be a matter of stylistics or performance. Thus comfortingly in (157) does not seem over felicitous.

(157) Not comfortably, John lost his first three bets. yet stylistically it can be converted into a more acceptable expression, as in

(158) Not quite comfortably enough for any of us,  
John won three bets in a row.

Now if (158) is grammatical so too must be (157). The apparent awkwardness of (157) must be accounted for in some way other than by characterising it as ungrammatical. The same condition holds I believe for all the Adverbials defined by the frame (156), a fact which appears therefore to constitute further support for this analysis.

Observe that the same restriction is sufficient to characterise the other Sentence Adverbial types as unacceptable.

(159) i.\*Not really, John is happy.

ii.\*Not frankly, I didn't do it.

iii.\*Not intelligently, he threw himself into the  
rocks.

The restriction, however, where it refers to the Subject-Selected Sentence Adverbial is far from absolute in my dialect. In other words one may say

(160) Not very cleverly, he decided to wear a suit  
to go to the dance.

#### The Constraint on Attributive Modification of Sentence Adverbials.

There appear to be two types of constraint. The one characterises Attributive Adverbials with any other attributive modification as ungrammatical.

(161) \*Very really, John killed Peter.

The other is less absolute, and permits certain  
Attributives with Sentential Predicate Adverbials and almost  
all with Subject-Selected Adverbials, and "Type 2" Sentential  
Predicate Adverbials.

(162) Quite obviously Bill hated cream cake.

(163) \*Extremely obviously Bill hated cream cake.

I have already argued that the constraint on Attribu-  
tive Sentence Adverbials as displayed by (161) can be accounted  
for in terms of the Phrase Structure rule which expands the  
Adj. Phrase

(164) Adj. Phrase  $\rightarrow$  (Adj<sub>i</sub>) Adj<sub>2</sub>

into an optional Attributive Adjective and a head adjective.  
Now the Attributive Sentence Adverbial occupies the Attribu-  
tive Node position (i.e. is and (Adj<sub>i</sub>)), and cannot therefore  
itself be modified.

The other constraint is not so easily stated. If  
(162) is grammatical then, since quite is an Attributive  
Adverbial, this category cannot be excluded from the environ-  
ment in Deep Structure. This possibility is ruled out anyway  
since Attributive Adverbials do occur in sentences of the type  
I am supposing underly the S.P. Adverbials.

(165) It is extremely obvious that Bill hated cream  
cake.

It must therefore be assumed to be a Transformational or a Surface Structure constraint. That it should be blocked by Transformation is improbable firstly because quite and other attributives are allowed and secondly it would again be difficult to state this as a rule feature.

Observe now that the Attributives that licitly pre-modify the Sentential Predicate Adverbials (type 1) are (166)

(166) quite, véry, enough.

Among those that do not appear are those of (167)

(167) extremely, decidedly, considerably.

If we compare examples of the two sets, a quite feasible hypothesis seems to be that those of (167) are blocked by a Surface Structure constraint based on the phonological stress properties of the Adverbial.

The Constraint might be stated in the following way:

(168) The only Attributive Adverbial permitted to pre-modify a Sentential Predicate Adverbial (Type 1), is one that occurs only with weakest stress.

This hypothesis is supported by the fact that the Adverbs of (166) can occur with stronger stress, often emphatic stress, but if this occurs before a S.P. Adverbial it automatically becomes unacceptable.

(169) \*Very obviously John had killed Peter

It is also a condition that is sufficient to characterise those of (167) as unacceptable in this context, since being

of more than one syllable, they must occur with a stress feature other than the weakest.

To recapitulate; I have just discussed two constraints relative to the occurrence of Attributive Adverbials with Sentence Adverbials. The first constraint was absolute and was that which prohibited ordinary Attributive Adverbials from co-occurring with Attributive Sentence Adverbials. This restriction was defined by the rules of the Base. The other restriction concerns the non-occurrence of the longer Attributive Adverbials with Sentential Predicate (type 1) Sentence Adverbials and Performative Adverbials. This I claimed to be a phonological constraint, on surface structure.

A corollary of this is that Subject-Selected and Sentential Predicate (type 2) Adverbials do occur with Attributive Adverbials.

(170) i. Extremely stupidly, John stayed at home all day.

ii. Enormously surprisingly for us, the Liberals won the election.

In certain dialects the constraint may have to be extended to Subject-Selected Mood Adverbials, i.e. if the following sentence is unacceptable

(172) ?John stayed extremely angrily at home all day.

The Constraint on Sentence Adverbials in Imperative and Interrogatives.

The facts relative to this restriction appear to be the following.

- a) Only Attributive Sentence Adverbials may occur in both Interrogative and Imperative Sentences

(173)i. Did you really eat the cake.

ii. Really enjoy yourself today.

- b) Performative Adverbials may occur in Interrogative Sentences but not with Imperatives.

(174) i. Honestly did you do it?

ii. \*Frankly, eat the cake.

The second of these restrictions seems to be the natural consequence of the fact that Performative Adverbials partake of the qualities of ordinary verbs as far as modification goes, and there is no possible source

(175) \*I order you be frank eating the cake

Observe, however, that according to my analysis really is introduced from an upper sentence of the form "It is really so." Now, if an Imperative Sentence is conditioned by the upper Performative Verb, then the source for (173)ii. must be approximately (176).

(176) I want that it be really so that you enjoy yourself.

if this is so, then I can see no principled reason for

excluding

(177) I want that it be obvious that you enjoy yourself.

I am therefore left with the hope that the Structure Preserving condition discussed above somehow blocks (177) appearing as a surface Imperative but allows (176). That is, in fact, to say that this restriction is still not adequately accounted for.

In this examination I have arrived at the conclusion that <sup>Sentence Adverbials</sup> they all arise in Sentences outside the proposition with which they are associated in Surface Structure and that consequently, pre-transformationally, there is no node that can be considered the Sentence Adverbial.

I have attempted to show that it is necessary to recognise the following types of Sentence Adverbial, in that they arise from different source sentences by different transformations. In some cases, the Derived Structural Relationship is also different.

- a) The Sentential Predicate (type 1) e.g. certainly,  
obviously.
- b) The Sentential Predicate (type 2) e.g. surprisingly,  
unfortunately.
- c) Subject-Selected Adverbials e.g. stupidly,  
craftily, angrily, smilingly.
- d) Performative Adverbials e.g. honestly,  
briefly.
- e) Attributive Sentence Adverbials e.g. really,  
actually.

I have certainly not solved all the problems relative to the analysis of these adverbials. I must in particular admit defeat over

- i) The process or constraint that allows allegedly but blocks \*claimedly.
- ii) The constraint that blocks certain Sentence Adverbials from occurring in Imperative and Interrogative Sentences.
- iii) Why ambivalent adjectives such as right correct occur only as Subject-selected Sentence Adverbials and never as Sentential Predicate Adverbials.

FOOTNOTES TO CHAPTER 5

1. See for example Greenbaum (1969) Chapter 2.
2. See Ruwet "Sentence Adverbials. Where do they all come from?" 1967.
3. Katz and Postal "Integrated Theory" pp.77, 78, 87, 88.
4. See Hofmann. "Past Tense Replacement and the Modal System" 1966. Rosenbaum, "The Grammar of English Predicate Complement Constructions" 1965.
5. It will subsequently become clear that S.P.Sentence Adverbials have two sources a) Type 1, derives from the predicate adjective of an upper copular sentence, and b) Type 2, derives from the Manner Adverbial of an upper sentence with an abstract (or deleted) verb of event, i.e. happen or turn out.
6. See R. Lakoff "Abstract Syntax and Latin Complementation" p.24.
7. See R. Lakoff " " " " " " p.161.
8. Fillmore in "The Case for Case", introduces all N.Ps as post verbal by the rules
  - a)  $S \rightarrow M+P$
  - b)  $P \rightarrow V=C_1 + \dots + C_n$  (where M= Modality, P= Proposition, C= Case.

"A later rule will automatically provide for each of the cases the categorical realisation as N.P.

Bach in "Have and be in English Syntax" considers that be (and have) are not present in deep structure. He gives "A re-analysis of English syntax.. in which have and be in their uses as "main verbs" are eliminated from the base and reintroduced by transformational rules".

In other words if we combine these two proposals a sentence such as John is intelligent starts out in Deep Structure as intelligent John.

9. See J. Ross "A Proposed Rule of Tree-Pruning".  
Node Deletion. "An embedded S is deleted unless it immediately dominates a V.P. and some other constituent"
10. Boyd J. and Thorne J.P. "The Semantics of Modal Verbs" 1969.
11. A Natural Adverbial is defined in footnote 7 of Chapter 4.
12. See Chapter 6, p.
13. See J. Emonds "Constraints on Transformations"
14. Emonds defines two distinct sentential domains for transformations
  - a) A Root-Sentence, where this is defined as  
".. either the highest S or else an S dominated by immediately by the highest S "  
also direct quotes must be marked as Roots.
  - b) All other sentences are non-Root sentences.

15. Discussed at beginning of Chapter p.

16. For example, Craftily he didn't give his name is paraphrased by It was crafty of him not to give his name.

Now it has been supposed that the latter underlies the former, yet the latter embedded does not paraphrase what appears to be the former embedded, i.e. a) and b) are not paraphrases.

a) ?I hope that craftily he didn't give his name.

b) I hoped it was crafty of him not to give his name.

CHAPTER 6  
DEGREE ADVERBIALS

The Degree Adverbial forms another class of de-  
adjectival adverbial recognised by traditional grammarians, and  
though morphologically it may appear identical to Adverbials  
of other functional sets, as in the case of terribly in  
(1) and (2)

(1) John speaks terribly

(2) John speaks terribly fast

where we have a Manner and a Degree adverbial respectively,  
it is, in general, easily identifiable for practical pur-  
poses, by criteria of which the following are perhaps the  
most usual.

DISTINGUISHING CRITERIA

1) In surface structure the Degree Adverbial  
modifies an adjective, a past-participle or a Manner  
Adverbial extremely happy or extremely slowly

2) Degree adverbials are realised by two structures,  
adj+ly and a prepositional phrase generally of the form  
to-adj-extent  
degree

these are mutually conjoinable by co-ordinative processes,  
and for all Degree adverbials of the form adj+ly there is  
a paraphrase to-adj-extent  
degree.

- 3) terribly fast = fast to a terrible degree
- 3) Degree adverbials do not themselves accept modification by other de-adjectival adverbials.

4) John speaks terribly extremely fast.

The above criteria, though not exhaustive, are sufficient to define a class of adverbials that apparently requires a different analysis from that accorded to the Sentence or Manner adverbials.

### THE CURRENT THEORY OF DEGREE ADVERBIALS

In Chapter one it was observed that Degree Adverbials, along with Manner Adverbials, were currently assumed to arise from the category Preposition Phrase, following the analysis of Katz and Postal, this Preposition Phrase itself, being, presumably, an optional expansion of the category dominating Adjective. The arguments in favour of such an analysis are precisely those that support the Unique Source theory in the case of the Manner Adverbial. This analysis of Degree Adverbials is expressible in terms of the P.S. Rules (5) and (6).

(5) Adj. Phrase  $\rightarrow$  (prep. Phrase) Adj.

(6) Prep. Phrase  $\rightarrow$  to-adj-extent

As in the case of the Manner adverbial there will presumably be a rule optionally converting to-adj-way into adj+ly.

NON-SUBJECT-SELECTED

Unlike the Sentence or the Manner adverbial there appears to be no instance of a selectional restriction holding between a Degree Adverbial and the Subject of the sentence. This means that there is no adjective in a Degree Adverbial which, in terms of Current theory, is selectionally incompatible with the Head Noun of the Preposition Phrase from which all forms of Degree Adverbial are thought to arise. The syntax of this adverbial appears therefore to be in perfect accord with the Doctrine of the Unique Source.

There is, however, one piece of evidence, which I shall claim is more easily accounted for in terms of my Disjunctive Development Theory. It has to do with the fact that sentence (7) is not grammatical in English.

(7)\* John speaks very extremely fast  
and yet, its source in terms of Current theory is

(8) John speaks fast to a very extreme degree.

Current theory, which assumes the Unique Source, will have to account for the ungrammaticality of (7) by positing a restriction that would block the occurrence of (7). I know of no restriction that would perform this function. Unless a restriction of some generality can be discovered that will prevent (7) from being derived from (8), the theory upon which it is based, i.e. the Unique Source, must be of necessity less convincing.

If, however, we assume that the dominating category, let us say ADJ. PHRASE is Disjunctively developed into either Prep. Phrase or Adjective, then the ungrammaticality of (7) poses no serious problem. The fact that we do not get "very extremely" is part and parcel of the restriction that the Node Adj. of Rule (9) is not itself modifiable, that is, cannot be qualified by another degree Adverbial, a Restriction which is made explicit in the P.S. Rules. Also, the fact that "very extreme degree" is acceptable is expressed by the same rule, since in this case extreme is an Adj.<sub>2</sub> (See (9)).

#### A DISJUNCTIVE FORMULATION OF THE DEGREE ADVERBIAL

The Disjunctive formulation is therefore in keeping with the analysis accorded to Manner Adverbials and accounts non-ad hocly for the restriction just mentioned. The Rules (9) give expression to this assumption

$$(9) \text{ Adj. Phrase} \longrightarrow \left\{ \begin{array}{l} \text{Prep Phrase} \\ \text{Ad. Phrase} \\ \text{Adj.}_1 \end{array} \right\} \text{ Adj.}_2$$

Observe that both this formulation and the former (5) assumes that Degree may not qualify any other category but Adjective. This may appear to be at variance with the distinguishing criterion 1), given at the beginning of the Chapter, which stated that the Degree Adverbial qualified either an Adjective or a Manner Adverbial. In fact, it can only



I suspect this restriction does not function in this way. My reason for saying so is based on the fact that the grammar must state, even despite this, certain restrictions holding between the Adverbial and the verb, restrictions which cannot be stated simply in these terms of Noun-Adjective of a prep. phrase. Thus, for example in the case of Manner Adverbials the following are unacceptable.

(14) 1. John miscalculated slowly

11. Mary thought \*slowly of her father  
strangely

111. He insisted\* quickly on staying there.

because certain types of Verbs, although compatible with Manner adverbials are selectionally compatible with only certain types of Manner adverbial. Thus certain verbs are incompatible with an adverb of movement, and as we shall see certain verbs cannot occur with a Degree Intensifier.

It seems that these restrictions can only be stated from adjective to verb, so this mechanism must be available in the grammar, and is itself sufficient to exclude greenly. The assumption therefore that the prepositional phrase is indispensable is therefore not valid,<sup>1</sup> for Manner Adverbials, and one can quote similar restrictions for Degree Adverbials e.g. \*very male.

THE MANNER ADVERBIAL AS AN ADJECTIVAL MODIFIER

Current theory generally assumes that it is the Degree Adverbial which modifies the Adjective or Manner Adverb, but consider the paraphrases

(15) 1. Nautically elegant

11. Elegant in a Nautical way.

Structurally it seems to be the case that the adjective +ly and the prepositional phrase are both in the same relationship to the adjective elegant as is the Degree adverbial in (16)

(16) 1. Extremely elegant

11. Elegant to an extreme Degree

What we have here in effect are Manner Adverbials occurring in the same context as the Degree Adverbial. It seems to me that this is formulable in two ways. Firstly, the category Degree must be in a "disjunct relationship with Manner,

(17) Adj. Phrase  $\rightarrow$   $\left. \begin{array}{l} \text{Degree} \\ \text{Manner} \end{array} \right\}$  Adj.

or, alternatively, the contrastive distinction between Degree and Manner is not one of Category but one of lexical feature,<sup>2</sup> analogous to the distinction between stative and non-stative adjectives. In this case, we might also expect Degree adverbials to occur in the contexts normally associated with the Manner Adverbial, i.e. as the qualifier of the verb. This, I think, is the case, as I shall try to argue in a subsequent section. Let it suffice for the

moment to quote an example.

(18) The treachery of his friend and the subsequent litigation upset John extremely.

Consider also that except in the case of a few adjectives, e.g. terribly the distinction Manner vs. Degree is not necessarily dependent on there being a D.S. contrast, but can be accounted for, in cases where they are realised by adj+LY; simply in terms of the semantic contrast of the lexemes. Manner adjectives have meanings which denote "quality" and Degree adjectives "Quantity".

TO SUMMARISE, I have claimed that Disjunctive Development of the category from which Degree Adverbials arise is in accord (at least where Degree Adverbials modify adjectives) with the statement that Degree adverbials may not themselves be modified. If we assume the 'Unique Source' this restriction has to be stated ad-hocly.

Degree and Manner adverbials do not really require a different class of head N.P. to distinguish semantically between them. The distinction is generally contained in the synto-semantic feature specification of the Adjective. In cases, e.g. terribly, where there appears to be an overlap we can account for this by assuming there to be two lexemes terribly one with a quantitative the other with a qualitative feature. Otherwise the two sets of adjectives on which the Adverbials are based are apparently disjoint.

Finally, the argument that an underlying preposition phrase is required to account for the sets of adjectives that may be Degree or Manner adverbials has been discredited since it is claimed that another mechanism, that is required anyway, which for example exclude kinetic adverbs, e.g. slowly from the environment of non-kinetic verbs, e.g. insist, imagine etc., can equally well account for the non-occurrence of greenly.

#### MANNER ADVERBIALS AS ADJECTIVE COMPLEMENTS

Examples have just been quoted of Manner adverbials functioning as the qualifiers of Adjectives and revealing, as far as can be judged, the same structural relationship to the Adjective. There are certain facts relating to this use of the Manner Adverbial that have to be accounted for. The most important of these is the fact that there is no grammatical sentence

(19)\* John was elegant with nauticalness

In other words, any hypothesis concerning the Manner Adverbial must account for With+NP of the adverbial not being used to qualify an adjective, though, the other forms including like + N.P. may

(20) John was elegant like a sailor.

In terms of the analysis that I am proposing this can simply be stated that all the Manner Adverbials that occur

in this context are non-subject selected (i.e. Natural). This means that there is no transformation in English which will place an adjective that starts its derivation as the predicator of a subject N.P. into a structural position where it may be taken as the qualifier of an adjective. Thus it has been already noted that there are no subject-selected Degree adverbials.

It will be recalled that in my analysis of with + N.P. adverbials it was suggested that these were always subject-selected. This would appear to be supported by the restriction on subject-selected adverbials qualifying adjectives

(21)\* John was furiously naughty

#### WHAT IS THE DIFFERENCE BETWEEN MANNER AND DEGREE ADVERBIALS?

If it is the case that Manner and Degree Adverbials occur in structurally similar environments and are themselves realised by the same categories is it necessary to consider them "Functionally<sup>3</sup> distinct? It is obvious that, though apparently categorically the same, the lexemes by which these adverbials are realised differ in feature composition, by at least the feature which differentiates the noun degree from the noun manner. I have termed the two poles of this feature "quality" vs. "quantity". Now, if my analysis were correct, one would assume,

in accord with the Co-ordination Transformation given by Chomsky<sup>4</sup> that a Manner and Degree Adverbial would be mutually conjoinable, since differences in feature composition are not considered to block this transformation.

(22)\* John runs considerably and slowly

(23)? He is an extremely and nautically elegant man.

The two types of Adverbials do not appear to be comfortably conjoinable and this is obviously one of the reasons why Chomsky has found it necessary to create a difference by developing them from separate categories one labelled Degree and the other Manner. Co-ordination can now be blocked since the two categories to be conjoined are no longer identical. There is however an alternative strategy and this is to assume that the only difference is to be found in feature composition and that it is the Co-ordination transformation or our assumptions about structure that have to be re-defined. In any case to define function by labels runs counter not only to Chomsky's own insights but is also, as I shall argue, mechanically impossible.

Another argument that is given in favour of establishing a structural difference between Manner and Degree Adverbials is that certain verbs are strictly sub-categorised as not occurring with a Manner adverbial. I have not been able to find a clear-cut case in which a verb which cannot take a Manner adverbial can occur with a Degree Adverbial, though (24) might be one.

(24) ? John resembles his father considerably.  
 If this is so, it does not necessarily mean that the restriction is one of "Strict-subcategorisation", which is a restriction between categories, but it could well be a Selectional Restriction, i.e. a restriction between certain co-occurring features.

In favour of my assumptions is the fact that I have not encountered a case of a Manner and Degree adverbial co-occurring, i.e. no grammatical sentence of the following structure

(25)\* John admires his father greatly in a  
                   strange way.

In other words the only acceptable evidence for considering them separate is that they do not conjoin. I believe (see note 2) that this involves a re-definition of co-ordination.

The following difficulty must be faced by either analysis. Degree Adverbials modifying verbs are not themselves modifiable;

(26)\* John admires his father extremely  
                   enormously  
 yet the Manner Adverbial is. Is this evidence that they are structurally distinct? This is a problem to which I shall shortly return.

THE EVIDENCE OF LIKE PHRASES.

In Chapter 7 I adduce evidence to show that the word like is an adjective. According to my analysis which assumes Degree and Manner Adverbials to be adjectives, potentially, it seems possible that like phrases may perform the function of Manner adverbials, (which I think is indisputable) and also of Degree Adverbials, particularly since it appears to be the case that like phrases have both a quantitative and a qualitative interpretation.

(27) The food is like the food in Spain ( = of a similar quality)

(28) The temperature is like that of Spain ( = of a similar degree)

I believe it to be the case that sentences such as

(29) below are consequently ambiguous

(29) John is happy like a bee

The ambiguity is between the interpretations a) in the manner of a bee (b) to the extent of a bee. I am here really dependent solely on intuition and freely admit that many speakers will find only the a) interpretation acceptable. Perhaps in the following sentence the point is more clearly made.

(30) I. John was stubborn like a donkey.

II. The cost of living is like at home.

III. The decrease in crime was like the year before the war.

If my intuitions are right, that is, if like phrases behave both as Manner and Degree adverbials then not only does it support my Disjunctive analysis since like is an adjective and which I can show is not a rewriting of a Proposition Phrase, but also it suggests that the difference between Manner and Degree occurs at a lower level than that of Category.

### DEGREE ADVERBIALS WITH VERBS

I believe it to be the case that there are various sub-categories of Degree adverbials involving rather strict complex selectional restrictions. There is, for example, the degree adverbial which occurs with almost all adjectives but with a limited set of verbs. I shall term this set

#### THE ADJECTIVAL DEGREE MODIFIER:

It is defined by the following surface criteria

- i. it may occur before both stative and non-stative adjectives

extremely happy. very helpful.

- ii. It may not occur before a comparative

\* extremely more happy than John.

- iii. It occurs with only a limited set of verbs in accord with some synto-semantic feature that I subsequently attempt to correlate with non-action verbs.

I have only the vaguest idea concerning this semantic correspondence.

Thus, for example, in my dialect it occurs with damage or dent

(31) The accident damaged the car extremely  
dented

but not with break

(32) \*the cup got extremely broken in the fall.

or consider the use of the word wound in

(33) John was extremely wounded by her remarks

(34) \*John was extremely wounded by the bullet.

In other words, wound in (33) contains the feature which permits the selection of this set of adverbial whereas in (34) it does not.

Consider now this property of Degree Adverbials when they modify verbs: that they cannot occur themselves with Attributive Modification. I have suggested that structurally they are identical to the Manner Adverbial, but although we can get (35)i, (35)ii. is unacceptable.

(35) i. John plays extremely well

ii. \*John plays extremely considerably.

I believe we can account for this in the following way. Consider the relationship between the two antithetical degree Adverbials in (36).

(36) i. John admires his father very much

ii. John admires his father very little

Let us refer informally to (36) i. as an up-toner and (36) ii. as a down-toner. All Degree Adverbials on their own function as up-toners. This is a strange property given the fact that there is generally

nothing inherent in the meaning of a Degree Adverbial that means "up-toner". There is no reason why in a sentence such as (37)

(37) John admires his father extremely,  
the adverb extremely should mean extremely much and not extremely little.

Now if we assume that there is a condition on quantity adverbs such that much (though not little) may be deleted when preceded by a Degree Adverbial such as extremely, then not only does this account for the interpretation of extremely in (37), but also for the absence of further Degree Modification. Since extremely occupies the Modifier node (i.e. Adj<sub>1</sub>) we naturally account for there not being a phrase \*very extremely.

I conclude therefore that the Degree Adverbials are introduced by a rule expanding the Adj. Phrase as in (38).

(38) Adj. Phrase ---> (Adj<sub>1</sub>) Adj<sub>2</sub>

The selectional Restrictions are such that only little and much occur in the position of Adj<sub>2</sub>, in case it modifies a Verb, the traditional Degree lexemes being confined to the Adj<sub>1</sub> node.

The fact that very cannot incorporate much accounts for the distribution of very, i.e. for the fact that (30) is not acceptable.

(39) \* John admires his father very  
and yet that we can get both

(40) Extremely happy and very happy

The conclusion reached was that Degree Adverbials associated with Verbs were in underlying structure the attributive adverbial of either the adjective much or little. This would imply that extremely might co-occur with any verb, since it is really not a modifier of the verb but rather of the verbal modifier adjective. This contention is not however borne out by the facts. In my dialect those of (41) are acceptable but those of (42) not.

- (41) i. This remark wounded him extremely  
ii. John admires his father extremely  
iii. The car got extremely damaged in the accident

- (42) i.\*John practised extremely to win the race  
ii.\*The snow had melted extremely.  
iii.\*Mary will grow extremely in that year  
iv.\*Orpheus pined extremely for Eurydice.

Now as the form very much is acceptable in all the contexts I can only assume that this is a condition on the deletion or incorporation of much. In other words much may be deleted in the environment of a certain type of verb. The condition appears to be relatable to a certain type of non-action verb. Hence, for me, although (41)i. is grammatical the following similar sentence is not.

(43)\* The enemy wounded the man extremely.

The contrast is again noticeable in the two uses of the verb admire. Where it means to feel admiration it can occur with extremely, where it means to look at with pleasure, it cannot so occur.

(44) i. John admires his father extremely.

ii.\*John was admiring the statue in the garden extremely.

The feature that permits this deletion appears to be correlated with that which permits the co-occurrence of a verb with a kinetic Manner Adverbial, such as slowly, quickly

(45) John {wounded the man so quickly that no one saw him  
          {admired the statue

The sentences of (45) have only the interpretation which is not associated with the occurrence of extremely.

### "VERY"

This adverb is rather idiosyncratic in its syntactic properties. It occurs only before another adjective (or de-adjectival adverbial). This means that it is confined to the Adj<sub>1</sub> position in the expansion of the Adjectival Phrase. (see (9) ). This condition is not very general.

In most uses it appears to be nearly synonymous with the adverb extremely but as has already been remarked, extremely can occur post verbally in the context of certain

verbs. A solution which I have suggested is that extremely be analyzed as deleting much when it occurs post verbally, and that very should go unmarked for this syntactic property.

There is still left another major distinction. Extreme can occur as a predicate adjective, very cannot.

(46) i. His happiness was extreme

ii. \*His happiness was very.

It seems to me that a more insightful and simpler generalisation can be made if very and much are assumed to form a suppletive set, with the conditioning expressed by a rule converting much to very when dominated by the node  $Adj_i$ . Observe, we therefore account for another fact that might well be considered rather strange, namely that much never occurs as an  $Adj_i$  in surface structure.

(47) \*John was much happy that day.

Two rules, or conditions are sufficient then for explaining the properties of very

a) that it is underlying much, subject to

the rule that it becomes very before another adjective.

b) that much does not delete when preceded by itself.

The Degree Adverbial of Traditional Grammar is in this analysis, the left hand adjective of the Category Adjective Phrase when this adjective is marked for the feature +quantitative. I have shown that the same node can also be

occupied by a non-Degree type adjective, one which closely resembles the Manner Adverbial. I have pointed that the difference is characterised by the converse feature marking, say -quantitative (or qualitative). The implication of this conclusion was that the distinction Degree-Manner was simply to be accounted for in terms of this feature contrast of the adjectival lexeme (or the head noun in the Preposition Phrase).

The Manner Adverbial is generally held to be the verbal modifier but I have shown that the Degree Adverbial also occurs in this context, though to account for restrictions such as that on attributive modification of Degree Adverbials, it appears best to assume that the  $adj_2$  of the Degree Verbal modifier is realised either by much or little.

#### THE VERBAL DEGREE-MODIFIER

The group discussed above, it will be recalled, were typically adjectival modifiers, though it was observed that they could occur with certain types of verb. There is a set of Degree adverbials which appears typically to qualify the verb. The adverb considerably belongs to this set. Among the syntactic properties are the following:

i) It can occur with almost all verbs<sup>5</sup>

(48) John was considerably wounded by Mary's remarks

(49) John was considerably wounded by the bullet.

(50) The butcher cut up the meat considerably  
before giving it to the dog.

ii) It may occur in front of the comparative morpheme

(51) John was considerably more belligerent after  
the drink

iii) It may occur only with adjectives that are non-stative.

As an example of this property consider its occurrence with the adjective helpful, which has both a stative and non-stative use.

(52) ?John is a considerably helpful person

(53) John was considerably helpful to us last night  
but it may not occur with happy which is always stative.

(54)\*John was considerably happy in Italy.

There are I consider strong motives for extending the membership of this set to include certain nominal expressions, as, for example, (very) much, a lot, etc. One of the strongest reasons is that intuitively these expressions appear to perform the same function. Thus, for example,

(55) John runs considerably in order to keep fit

(56) John runs a lot in order to keep fit.

The latter in turn seems to be related to a Measure or even a Frequentative adverbial.

(57) John runs five miles in order to keep fit.

(58) John runs every day in order to keep fit.

One might be tempted to analyse considerably, like extremely as being the adjectival modifier of a deleted much. Observe, however, whereas the down-toner corresponding to extremely in (37) was extremely little, there is no such down-toner for considerably. (\*Considerably little).

It is as if much were lexically incorporated into the meaning of considerably. If the lexical condition for inserting considerably/<sup>were</sup> that it should incorporate the sequence considerable + amount, then we could account naturally for certain otherwise idiosyncratic properties of this adverb.<sup>6</sup>

Firstly it would be possible to understand why considerably appears to occur with so many different functions. For example in (59) it appears to function as a Direct Object

(59) i. John drinks a lot in order to get slim.

ii. John drinks considerably in order to get slim.

If it were simply a Degree Adverbial we would expect it to co-occur with the Direct Object, but this is not the case

(60)\* John drinks a lot considerably in order to get slim.

In other words it differs greatly from its use in (61).

(61) John burnt the meat considerably where it co-occurs with the Direct Object.

Compare again the use of considerably in the following sentence with its use in (61)

(62) Paolo played tennis considerably in Spain.

We do in fact have here the same set of adverbials, co-occurring this time with the Direct Object, represented here by the noun tennis. One feels however, that considerably is performing a different function here than in (61).

Considerably, is here in fact not paraphrasable by extremely but is in complementary distribution with a Frequentative adverbial. In other words considerably and frequently cannot co-occur in the same sentence.

(63)\* John played tennis frequently considerably in Spain.

a restriction which does not pertain to (61) for we can say

(64) John often burnt the meat quite considerably.

One is led necessarily to the conclusion that here considerably and its set of Adverbial nominals are functioning as Frequentative Adverbials.

Let us examine now the function of these adverbials in the following sentence.

(65) Mary grew considerably that year.

We can certainly not substitute a Frequentative Adverbial in this case. In fact the type of expression which is excluded by the occurrence of considerably is one which is traditionally termed a Measure Phrase.

(66)\* Mary grew five inches considerably that year. These environmentally conditioned functions are set out in Table I.

ENVIRONMENT	FUNCTION
1 After a causo-Static Verb e.g. "John burnt the meat"	Degree
2 After Transitive "Action" Verbs (Type 1) <sup>7</sup> e.g. "John <del>hit</del> <u>plays tennis</u> _____"	Frequentative
3 After transitive "Action" verbs (Type 2) <sup>7</sup> e.g. "Hohn ate _____"	Direct Object
4 After Intransitive Non-Static Verbs e.g. (John grew _____"	Measure Phrase
5 After Transitive Stative Verbs e.g. "John admires his father _____"	Degree
6 Before Comparatives e.g. "Bill is _____ better than Anne"	Measure

TABLE I

It should be borne in mind that I have established the Function Correlation by considering what element is excluded by the occurrence of the Adverbial considerably in the sentence. Thus in row 1, very and extremely are excluded, in Row 2, often, in Row 3, chicken, in Row 4, five inches etc. There are no sentences

(a)\* John hit Paul frequently considerably.

WHY A PURELY ADVERBIAL ANALYSIS OF "CONSIDERABLY" WON'T DO

The solution that immediately suggests itself for accounting for the distribution of Considerably and the other verbal intensifiers, is one which assumes that there is a post-verbal category, ADV, of which it is a realisation in all cases.

(67) V.P. —————> V(N.P.) ADV

This is really the same rule as that used to introduce the Natural Manner Adverbial (instead of ADV. I stated the categories directly). That this should be so is borne out by the fact that Manner and Degree Adverbials do not co-occur.

(68)\* John burnt the meat slowly considerably.

and I believe the analysis is correct for what I have termed the "Intensifier" use of considerably. Observe however that in other uses it is not in complementary distribution with the Manner Adverbial, but rather its presence excludes a nominal expression.

(69)\* Slowly but surely, Mary grew considerably that year.

In other words if considerably were dominated by the ADV constituent of (67) above, it should have thereby precluded the occurrence of slowly, but instead it simply pre-empts a measure nominal. See (66)

Now if, as suggested earlier, considerably were analysed as being an alternative spelling-out of the sequence considerable+amount, and it were assumed that such

nominals could occur not only in the N.P. position of rule (67) above but also as the realisations of the constituent ADV, then I think we can account easily for the distribution of this set and their diverse functional uses.

As a Direct Object and as a Measure Phrase, considerably will be the realisation of the N.P. of Rule (67) above. It does not preclude thereby the occurrence of a Manner or a Frequentative Adverbial.

(70) The plant grew considerably very quickly.

As an Intensifier, and perhaps as a Frequentative,<sup>8</sup> it is dominated by the category Adv. of rule (67), and can therefore occur with a Direct Object and a Measure Phrase.

If it were simply analysed as the realisation of the ADV category of (67), then it would not be possible to state these restrictions.

Traditionally within Transformational Grammar, these different functions have been accounted for by considering them to be the realisations of different Base categories. They are introduced therefore according to Chomsky (1965, pg. 102) by the following Phrase Structure Rule:

(71) Prep. Phrase → 

Direction
Duration
Place
Frequency
etc.

It is to be assumed therefore that a verb such as grow would be subcategorised as occurring with a Measure Phrase, and play with a Frequentative.

It seems unnecessary to establish different Base categories. All these verbs appear to have the same structural configuration but with the lexical items being potentially different. Now the problem is only posed because the set made up of considerably, a lot, a great deal is selectionally compatible with all these verbs.

The lexemes considerably, a lot, a great deal contain in them a feature that permits them to co-occur with all these verbs.<sup>9</sup> Let us call this feature + quantitative. Lexemes such as frequently, five inches, etc., are also marked for this feature but they are each moreover specified with at least another feature which distinguishes them from each other. Thus, we have at least three sets of Adverbial expressions, but three sets which overlap as I attempt to show in Fig (2).

Set 1 is that which occurs with admire (stative) i.e. the intensifiers

Set 2 is defined as that occurring with grow (intransitive) i.e. Measure Phrase

Set 3 occurs with Action verbs such as play tennis i.e. Frequentatives.

Now, Set 1 lexemes are common to both Set 2 and Set 3.

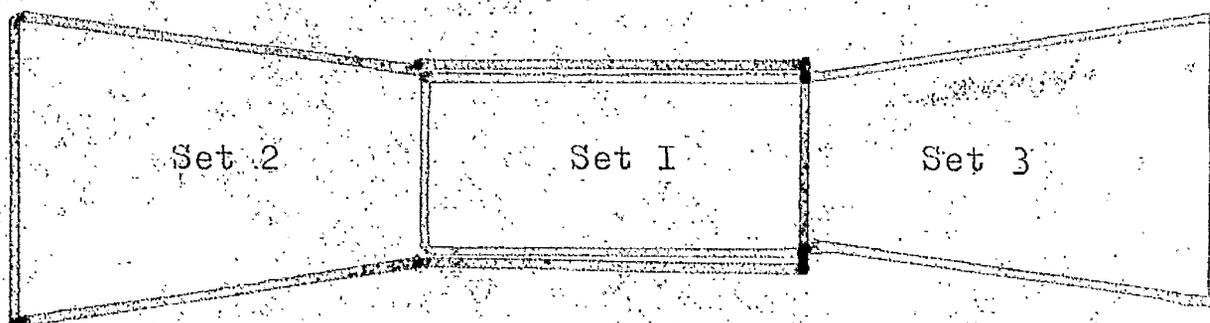


Fig. (2)

With two devices then the apparently idiosyncratic uses of considerably, a lot etc. can be accounted for.

Firstly, it must be assumed that there is a process in the Grammar, which after Gruber I call "incorporation" by which a sequence such as a considerable amount which is N.P. is re-written as considerably. Such a device would account for considerably functioning as a Direct Object as in (59)ii and secondly if we consider these expressions to be the common denominator of three distinct sets defined by combinations of syntactic features (see fig. (2) ) then we can account for the various, apparently distinct, functional uses.

What I find of particular interest in all these apparently different Adverbial expressions is the fact that there is regularly an alternation between Nominal and Adjectival expressions.



In conclusion, it can be said that the items that have been loosely termed "Verbal intensifiers", i.e. very much, considerably, a great deal can function as Direct Objects, Measure Phrases, if dominated by the immediately post-verbal N.P., or as either Intensifiers or Frequentatives if dominated by the other optional category in (73), (i.e. N.P. Adv. Phrase.

The fact that considerably can occur in all these places is explicable in terms of an extension of its function to be dominated by the node N.P. while retaining its adjectival feature. This process might be due either to deletion or incorporation.

Taking into consideration that the Manner Adverbial arises from the same Nodes as the Intensifier of the Frequentative seems to me to present no theoretical problem as they are in complementary distribution and there is even further motivation to be gleaned from the fact that they all are realisable by either nominal or adjectival expressions. The preposition which is inserted in front of the Manner or the Intensifier nominal, since it is environmentally conditioned, is meaningless and can be reasonably considered to be inserted by a very low level rule.

A RESIDUAL PROBLEM

The analysis given for considerably has assumed that it was in deep structure the adjectival modifier of an expression of quantity. This quantity expression was subsequently incorporated or deleted. Such an analysis accounted for the fact that considerably occurred in nominal environments, and in most cases considerably may be paraphrased by a nominal expression such as a great deal or a lot.

Note however that considerably is found also in a context from which these nominal paraphrases are excluded, namely as the modifier of another adjective (i.e. as an Adj<sub>1</sub> according to the convention I have adopted). Observe that in this context it appears to be subject to the restriction that it may modify only a -Stative adjective. Thus (74) i. is acceptable but (74) ii not.

- (74) i. The policeman was considerably helpful  
 ii.\* The policeman was considerably happy

There is not necessarily a contradiction between these two usages of considerably. Observe that since in the former case we consider it to be an adj<sub>2</sub> (i.e. the head adjective of the Adjectival Phrase) and in the latter usage an Adj<sub>1</sub>, it seems to me that the correctness of these hypotheses should be testable. In other words in its use as a Direct Object, Frequentative and Measure Phrase it should itself as an Adj<sub>2</sub> be qualifiable by an Adj<sub>1</sub>.

That means that the following are characterised as grammatical, thereby

- (75) i. John ate quite considerably
- ii. John had played tennis very considerably  
in Spain
- iii. Mary grew so considerably that year that  
we were all amazed.

The following, naturally, are for the same reason ungrammatical.

- (76)\*i. The policeman was quite considerably helpful
- \*ii. Mary was sure to be very considerably careful.

What is surprising is that considerably should occur as an Adjectival modifier but not so the other modifiers of set 1. I have assumed that the constraint blocks everything but an adjective. This, though observationally adequate, seems unsatisfactory, since it implies that there are two tokens of considerably one incorporating a quantitative nominal and the other purely an attributive adjective.

#### DEGREE INTENSIFIERS

It is convenient, though not necessarily "logical", to consider under this heading a class of de-adjectival adverbials which has been the subject of a recent monograph. I refer to Greenbaum's "Verb-Intensifier Collocations in English". Mouton 1970. As its title suggests, Greenbaum is concerned with collocation as assessed by the frequency with which informants associate lexical items. It is essentially therefore a study of "Performance". Nevertheless

certain syntactic phenomena are made manifest, which, I think, fall rightly in the province of a "Competence" grammar.

Greenbaum defines the objects of his study by stating that the term "intensifier" is used to

"...designate certain adverbs that may be positioned before the verb. Semantically these have in common some heightening effect on the force of the verb."

Those here studied were initially divided into two groups in accordance with the criterion of whether or not they "possess a semantic feature denoting extent."

Thus, adverbs such as badly,<sup>10</sup> greatly, entirely, completely, utterly were considered to possess this feature and syntactically produced a well-formed sentence when contrasted with the phrase to some extent as in (79)

(77) I don't need it badly but I do need it to  
some extent.

This set was termed "Degree Intensifiers".

In opposition to these was the class made up of the members really and certainly. These do not denote extent and in fact react negatively in the test frame

(78)\* I don't need it really but I do need it to  
some extent.

Let us call these non-Degree Intensifiers.

The particular interest of these adverbials for the generative grammarian is whether they can be analysed in terms of the Degree Adverbial analysis already given.

Both types of intensifier may occur pre-verbally.

(79) John  $\left[ \begin{array}{l} \text{really} \\ \text{completely} \end{array} \right]$  amazed us with his learning.

(80)\*John extremely amazed us with his learning.

The non-Degree Intensifiers, really and certainly are not to be confused (according to Greenbaum) with the homophonous Sentence Adverbials. This implies that in some way the really of (81) is different from that of (82).

(81) Really, John studied hard for the exam.

(82) John really studied hard for the exam.

Greenbaum, moreover, has experimental evidence that informants consider these two tokens of really to be distinct.<sup>11</sup> Does this mean that in Deep Structure they have different origins?

I believe it to be the case that the Non-Degree Intensifiers are in fact Sentence Adverbials which have been placed by transformation before the Verb. Among the reasons for claiming this are the following.

All Sentence Adverbials can appear in this position.

(83) John  $\left[ \begin{array}{l} \text{obviously} \\ \text{honestly} \\ \text{intelligently} \end{array} \right]$  studied hard

The mechanism is therefore available.

In my analysis of Sentence Adverbials a distinction was made between certainly and really. The syntactic difference accompanies them even in their use as Intensifiers. Certainly is restricted in its order in relation to didn't

(84) John didn't really study hard

(85) John didn't certainly study hard.

Again, it was noted that really but not certainly could go down into "for-to" and "poss-ing" complements. The same restriction appears to hold for the intensifiers really and certainly.

(86)\* I want John to certainly kill Paul

\* John's certainly killing Paul upset me.

Finally, Non-Degree Intensifiers play no role in Verbal sub-categorisation. This property is also that of the Sentence Adverbial. Moreover, there can be no doubt that to analyse them as separate categories will involve us in considerable complications. There is no reason to consider them different other than the fact that the native speaker considers them different. Recently Chomsky and others<sup>12</sup> have claimed that there is a certain type of meaning which can reasonably be said to be due to Transformations. Intensification (i.e. the rule which takes a certain type of sentence adverbial and places it before the verb) may be considered another example of transformation-produced meaning.

### DEGREE INTENSIFIERS

I have claimed that the Non-Degree Intensifiers are essentially not in D.S. Degree adverbials<sup>13</sup> and therefore pose no problems to the analysis which I had tentatively sketched of Degree Adverbials. This other set of intensifiers must, I think, be incorporated into the analysis of Degree

Adverbials, with special rules to accommodate its idiosyncratic behaviour. Firstly, let us note that most of the members of this set differ from the previous two, semantically, in that their quantitative properties are analysed into finite units. Thus we use these to speak of the part, partly or the whole wholly, entirely, utterly. The other types such as extremely and terribly contain no such presupposition. It should be stated at the outset that the set of items here to be treated as Degree Intensifiers is not co-extensive with that meeting Greenbaum's definition.

As an example of this type of adverbial in context consider

(87) I have completely forgotten to ring him.

It is important for clarity's sake to distinguish between the true "Degree Intensifier" and a pseudo-Degree Intensifier.

#### PSEUDO DEGREE INTENSIFIERS

I believe there to be a surface structure very similar to the above, and quoted by Greenbaum as a Degree Intensifier but which really has a different D.S. origin. It is exemplified by (88)

(88) John completely ate the cake.

The latter is subject to a paraphrase in which the adjective base of the adverbial is the modifier of the Direct Object.

(89) John ate the complete cake.

There are other distinctions. Ate is a non-stative verb. We can say

(90) John is completely eating the cake.

but we cannot say

(91)\* I am completely forgetting to ring him.

and though many of the verbs with which completely occurs may be non-stative I suspect that one of the conditions for <sup>there</sup> ~~its~~ occurrence with completely is that <sup>they</sup> ~~it~~ must be stative.

To revert now to (88) in which completely co-occurs with a non-stative verb, there are two facts that suggest that (89) underlies (88) and not vice versa and would lead to the conclusion that completely in this use is not a D.S. Verbal Modifier.

The first fact is that there is no non-stative intransitive verb that occurs with Degree Intensifiers.

(92) John runs utterly

(93)\* Mary grows partially each day

This implies that the surface adverb is to be associated with an object N.P. an implication which is confirmed when we consider the Object-deleting non-stative verbs, for although like ate they may occur with an apparent Degree Intensifier if their Direct Object is present, it is lost with object-deletion.

(94)\* John ate completely.

If it were really part of the V.P. at the stage at which Object-deletion occurs there would be no syntactic reason for its non-occurrence.

PSEUDO-DEGREE INTENSIFIER WITH INTRANSITIVE "ACTION" VERBS

Consider the following two sentences

(95)i. John shook completely

ii. Tim miscalculated completely.

The adverbs in both of these sentences would be classified by Greenbaum as Degree Intensifiers. Yet, to me at least, they signify different things. (95)i is paraphraseable by a sentence with a quantifier as in

(96) The whole of John shook

The second has no such paraphrase. For the same reasons (97) seems to me ambiguous.

(97) John completely spoilt the carpet  
between the paraphrases

(98)1. The whole of the carpet was spoilt by John

11. John utterly spoilt the carpet.

In fact the adverb utterly would appear to be a good test of this intuited distinction. Observe that utterly and completely are in certain uses synonyms, yet utterly does not paraphrase completely when the latter is used in its quantifier sense, equivalent to "the whole of."

We can account for the semantic contrast of completely in (90) and (91) as well as the distribution of utterly, by the same rule as was used to exclude

(99)\*John utterly ate the cake.

in other words by a restriction confining Degree Intensifier Adverbials to the environment of Non-Action Verbs<sup>14</sup> but

allowing for a transformation that will take a quantifier from before a N.P. and make it a daughter of the V.P., this quantifier being part of the Subject N.P. in the case of Intransitive verbs and part of the Direct Object N.P. in the case of Transitive Verbs. I conclude therefore that there is a class of surface degree Intensifiers whose source in Deep Structure is outside the V.P. and which may occur with non-stative verbs. I make no statement about the source of this adjective other than that it is associated at some stage with the Direct Object for transitive verbs, and with the subject for intransitive verbs. I have my doubts about whether its source is the predicate adjective of a Relative sentence, since it is hardly paraphraseable by

(100) John ate the cake which was complete.

More likely the adjective is associated with the Direct Object N.P. in the way that quantifiers are. Its source is then more likely to be <sup>15</sup>

(101) John ate the whole of the cake.

This would involve one inevitably in speculations about lexical relationships since there is no source

(102)\*John ate the complete of the cake

but this type of consideration is inevitable anyway to accommodate partial since it is clearly nonsense to talk of

(103) John ate the partial cake.

Distribution of Degree Intensifiers

It appears to be the case that these adverbials can occur in the environment of almost all Stative Verbs. The following are however exceptions, but exceptions which, I think, can be generalised over.

(104)\* John completely appears happy<sup>16</sup>

(105)\* This perfume completely stinks

(106)\* This music partly sounds happy

(107) (All copular and Middle verbs)

The generalisation that can be made considers these exceptions all as types of copular verbs. Observe that the adjectives that follow these verbs are semantically to be interpreted like the predicate adjective of a copular sentence, and in most dialects are not subject to \*LY attachment and are equivalent to paraphrases with the true copula

(108) John is happy in appearance

(109) The music is happy

The second sweeping generalisation that can apparently be made is that "Degree intensifiers occur with Non-Action Non Stative verbs."

The "Action" verb, it will be recalled, is one that may take a "Kinetic Adverbial" e.g. slowly, I, again very tentatively, propose that this is the feature that distinguishes the literal and metaphorical use of wound

and the negative affirmative pair, calculate-miscalculate.

(110)\* The remark is slowly wounding John's self-esteem.

(111) The enemy had quickly wounded the whole of our platoon

(112) John is calculating it very slowly.

(113)\*John is mis-calculating it very slowly

Now, it is precisely the verbs that do not accept, quickly, slowly that may occur with Degree Intensifiers.

(114) The remark completely wounded John's self-esteem

(115) John is completely mis-calculating

Even if the two generalisations stated above are valid we shall still have to account for certain action verbs that also co-occur with Degree Intensifiers. Again these appear to have a syntosemantic feature in common, though I have been unable to establish a correlation with any such independently established feature. Among these verbs are the following:

(116) collapse, terrify, rout, spoil, disown, overwhelm, annihilate.

#### A GENERAL RESTRICTION ON DEGREE ADVERBIALS

As summarised above I have assumed that the following features are relevant to the sub-categorisation of Degree Adverbials, Verbality (Adjectivality perhaps), Stativity, the feature "Action" and an arbitrary feature termed causo-stative. There is a further feature, or binary contrast: I refer to that which has been established for

Adjectives and which divides them into Contradictory and Contrary.

Informally; we might characterise this distinction by saying that contradictory adjectives denote a discrete state or property. Such as dead, male, or English, in their literal usage. To negate their predication is equivalent to saying the contrary. Thus non-dead = alive, not-male = female, not-English = foreign. There is no in-between stage. The state or property is not predicable in a greater or lesser degree. On the other hand, contrary adjectives are not discrete in the same way. It is possible to distinguish the extent to which these adjectives are applicable. As a syntactic reflex we see that contradictory may not take Degree Modification as "naturally" as contrary adjectives.

(117)1.\* John is very dead

11.\*By special Act of Parliament he was made extremely English

In its literal meaning it is ungrammatical with Degree Modification<sup>17</sup> and if it is accepted as grammatical in certain contexts then it no longer retains its literal meaning. The following may be accounted for in this way

(118) He has become more English than the English.

Compare these with contrary adjectives such as intelligent which admit a whole scale rather than a particular point or extreme at which it may be applied

(119) extremely intelligent  
 quite  
 moderately

Another syntactic reflex appears to be that Contradictory adjectives admit of qualification by Degree Intensifiers but not by the other types of Degree Adverbials.

(120) His cousin is now partly dead  
 90% English

(121) His cousin is now considerably dead  
 English

Thus far I have tried to show that it is necessary to take into account the contrast contradictory-contrary in order to account for certain selection restrictions operating over Degree adverbials and adjectives. I believe that some restriction is relevant for the sub-categorisation of verbs: for example, the verbs die, leave, reach, arrive, depart, which like the adjectives described above occur with Degree Intensifiers but not with the other types of Degree Adverbials.

(122) John completely left the house but then returned.

To formalise the fact, therefore, that Degree Intensifiers do not occur with intelligent but do so with dead and happy, we have set up a feature +contradictory, a feature which is possessed by the latter two but not by the former. Theoretically, how can we account for the fact that an Adjective such as happy can occur with both

Degree Adverbials and Degree Intensifiers. I believe the answer is to assume that the feature is optionally present in certain tokens of the lexeme. It will be recalled that a similar situation was encountered to explain the stative and non-stative properties of adjectives such as helpful, i.e. in "be helpful" it was non-stative and in He is a helpful person, it was stative. In one case happy can therefore be characterised as +contradictory, that is when it co-occurs with a Degree Intensifier and where it occurs with a Degree Adverbial such as extremely it is considered to lack this feature. Such a device considerably simplifies the statement of distribution.

#### The distinction Degree Adverbial - Degree Intensifier

The Degree Intensifier, according to the original definition of Greenbaum which was initially accepted, was an adverbial which could occur pre-verbally and which had a heightening effect on the verb.

I have been using this definition to contrast the Degree Adverbials extremely, considerably, very much, a great deal, on the one hand, and the set formed by completely, partially, absolutely, on the other. It should be noticed, however, that both these sets of adverbials may be placed in front of the verb "with a heightening effect." We can account for the pre-verbal positioning of all these Adverbials in the following way.

a) Only Adjectives are permitted to "pre-verbalise"

This accounts for the ungrammaticality of

(123)\* This remark a great deal hurt John

b) There is a phonological condition on the process

such that only single adjective Adverbial

Phrases, or those of two adjectives in which

the modifier-Adjective (i.e. Adj<sub>1</sub>) is

phonologically weak, i.e. very, quite are

permitted. This accounts for the acceptability

of (129)i and the deviance of (129)ii.

(124)i. Mary very much hoped to pass the exam.

ii. Mary terribly much hoped to pass the exam.

There is a distinction however between the two sets of Adverbials represented by the examples (125) and (126) below.

(125) completely, absolutely, partially, 90%,

(126) considerably, extremely, terribly, excessively

Observe that those of (125) have no paraphrase with the Prep. Phrase and a Degree head word.

(127)\*to a complete extent, to a partial degree.

Also those of (125) occur only before +Contradictory

adjectives. My use of the term "Degree Intensifier" must

be understood as being defined by the above two properties

and denotes these of (125).

There is one problem. These intensifiers do not

appear more acceptable with attributive modification than do the other Degree Adverbials

(128)\* He very completely admired his father.

ii.\*He so partially ruined the carpet.

We accounted for this in the case of the Degree Adverbials by assuming that they themselves were the attributive Adverbials (i.e.  $adj_1$ ) qualifying much or little with the potential for much deletion or incorporation. The adverbials of (125) do not really co-occur with much or little. This formal mechanism of expressing this restriction is not therefore available.

The only suggestion that I can make is that these Intensifier Adverbials, since they are all modifiers of +contradictory adjectives and verbs, are themselves characterised as not being modifiable by Degree Adverbials.

This accounts for the fact that (129) is ungrammatical

(129)\* John is a very complete fool.

When we in fact use what appear to be +contradictory adjectives with Degree modification we have in fact altered their nature.

(130)\*This glass is very full.

Full in the above sense does not really mean full in its absolute sense.

### Selectional Restrictions

The selectional Restrictions holding between the Adverbial modifier and the Verb or Adjective modified are the following.

	Environment	Adverbial Set
1	+ Adj + contradictory	completely
2	+ Adj. - contradictory	extremely
3	+ Adj. - Stative	considerably
4	+ Verb (N.P.)	Considerably
5	+ Verb - action (N.P.)	completely

TABLE I

Another restriction, namely that which allows extremely to occur with admire, or hate but not with burn, can be accounted for by assuming the underlying form to be extremely much, but with the specification in some dialects that much can be deleted in the environment of a non-action Verb.



inter-dependent and extremely and slowly, but not extremely and the verb.

These problems are not solved moreover if we retain the "Unique Source". In fact, I believe this to be necessarily the case whenever there is a constituent that may optionally dominate one or more categories. This, is then a problem concerning the formal properties to be expressed by the Model. For the moment let us therefore accept this formulation until in Chapter 9 I revert to the problem.

### CONCLUSIONS

I have tried to show that the Degree Adverbial of traditional grammar, is to be considered in Transformational Grammar, as realisable by two categories: adjective and nominal phrase, neither of which can be analysed as underlying the other. It is introduced by the rules of the Base in two contexts, firstly as the qualifier of an adjective and secondly as the qualifier of a Verb. Both in Category and structural position it is therefore identical to the adverb of Manner. The functional difference between Manner and Degree Adverbial if it is syntactically relevant, is to be accounted for in terms of the feature constitution of the Adjective or the Noun of the Preposition Phrase by which the adverbials are realised in accord with contrast quality quantity.

Degree Adverbials, it was claimed must also be sub-categorised according to their potential to co-occur with +contradictory adjectives or verbs. Adverbs that have this potential, I have here called "Degree Intensifiers".

The occurrence of Degree type expressions with verbs presents many difficulties to the analyst. In the first place he must account for the fact that these expressions seem to perform various syntactic functions. I have suggested as a basis for the explanation that these expressions incorporate a nominal; that considerably is in underlying structure considerable+amount. Certain of these adverbials do not themselves occur with attributive modification\*very extremely "very wholly". In the case of the former I have proposed that it be analysed as underlying extremely much. We can thereby explain the absence of very by the assumption that the  $adj_i$  node is in fact occupied by extremely (observe there is no such restriction on very considerably). In the case of Degree Intensifiers, I claim that they are themselves +contradictory and therefore not modifiable by Degree Adverbials (except perhaps by themselves, hence the acceptability of absolutely completely).

FOOTNOTES TO CHAPTER 6

1. How these selectional restrictions are to be stated in the case of in-adj-way type structures also poses a problem to the Disjunctive Theory.
2. Observe that up to now it has been assumed that the Co-ordination criterion was sufficient to define functionally identical elements. The following however, seem odd to me, even unacceptable (though the items are held to be functionally the same) i.e. predicate adjectives and Direct object nominals.

(a) John was drunk and helpful to us.

(b) I hate grapes and his arriving at 11 o'clock.

In other words where the items to be conjoined differ by certain features then the co-ordination seems dubious. This is the case also when we try to ascertain whether extremely and nautically function the same, since the resultant co-ordination also appears strange

(c)?John was extremely and nautically elegant.

Another fact which suggests that our present theory of co-ordination is still only approximate, is given by Fillmore (1968) pg.22. He states that although the following two sentences appear to meet the conditions for co-ordination, the resultant sentence is ungrammatical.

(d) i. John broke the window

ii. A hammer broke the window.

iii.\*John and a hammer broke the window.

- 3) By the Chomskyian condition that if they are identical categories they must be in different structural positions in the tree-structure or if they are in the same structural position then they must be different categories. The above is simply an implication of his concept of syntactic function.
- 4) See Chapter 2, footnote 1.
- 5) There is a preference in my dialect for very much in affirmative sentences though much by itself can occur in negative contexts.

John was not much concerned with the outcome.

- 6) For the notion of lexical incorporation see J. Gruber 1965 and 1967. Although Gruber considers the categories which are the constituents in the incorporation process to be semantic, I think the notion can be extended so that if there is a string considerable amount at the end of the operation of the Base Rules, where considerable and amount are both ordinary lexemes, these can be replaced by the lexeme considerable provided that it can be shown that the lexical insertion process occurs at more than one place in the grammar.

It is also possible and theoretically more acceptable, though no doubt mechanically more complex to consider that Nominal modified by considerable has been deleted. This would be in line with my analysis of

extremely as a verbal modifier. The fact that we do not get considerably little can be assumed to be the consequence of a selectional restriction.

- 7) The division into two types of 'Action' Verbs is not given any further correlation but simply corresponds to the fact that considerably functions differently for the two classes.
- 8) There seems to me to be reason to believe that the Frequentative Adverbial may occur at more than one position in structure. Chomsky argues that the adverbials which partake in verbal sub-categorisation must be considered expansions of the V.P. Yet, Frequentatives often display the properties of higher adverbials. For example they permute without great change in emphasis

a) Frequently, John played tennis in Spain

John played tennis frequently in Spain

John played tennis in Spain frequently.

Manner and Frequentative Adverbials can co-occur

b) John plays tennis slowly frequently.

It may be necessary then to recognise three places in structure in which adverbs like considerably can occur: the Direct Object position, the Manner/Degree Adverbial position, and the Frequentative Adverbial position.

- 9) One notable exception is the adverb greatly which though apparently a member of set does not occur as a

Direct Object or a Frequentative Adverbial. It should also be noted that the analysis I am according to considerably must not be considered unique since it is necessary anyway to account for more common adverbials such as "very much" very little etc. It seems to me that much and little must be assumed to be Adjectives in uses such as

a) There isn't very much bread today  
yet there must be available some mechanism that converts them into N.P.s to account for their use in

b) Too much was eaten by everyone.

10) The badly referred to here is one that is used with a very limited set of verbs such as want, need, and not the Manner Adverbial.

John badly needs a haircut

is subject to interesting selectional Restrictions.

See Greenbaum, 1970.

11) See Greenbaum (1969) pages 132 and 144.

12) Chomsky (1969) "DEEP STRUCTURE, SURFACE STRUCTURE, AND SEMANTIC INTERPRETATION" Mimeographed by Indiana University Linguistics Club.

13) By this I mean simply that it does not arise from the same D.S. categories as the traditional Degree Adverbial.

14) "Action" verbs are a sub-set of the Non-Static class. Semantically these verbs denote a physical-type process.

Syntactically they are distinguishable by their potential for co-occurring with kinetic adverbials such as slowly and quickly. Contrast

( i ) John is defying his father slowly

(ii) John is playing slowly

15) See R.S. Jockendoff (1968) for a discussion of the source of quantifiers.

16) Recall that it is a property of Degree Intensifiers that it can precede the verb. completely happy is grammatical in this context, but is analysable as an Adjectival Degree Adverbial.

17) The derived usage of Female meaning "with an unspecified number of the properties of a woman", i.e. which is equivalent to feminine, and which therefore can occur with very, cannot be considered the same for this discussion.



They can however be given a unitary analysis if like is considered to be an adjective, <sup>and</sup> /in conformity with the Revised theory being preposed here, we allow adjectives to be introduced in the Base directly dominated by the node which dominates Manner Adverbials. In short, the facts of Like, prima facie, support the Revisions I am proposing. To bring them into line with Current Theory would involve one in dealing with suspicious and essentially ad hoc rules.

Let us assume nevertheless that it should be claimed, that there was motivation for considering that Manner preposition phrases could occur in copular sentences but were obligatorily converted to Like phrases in this instance. That is to say that sentences such as (4) did occur at some stage of the process but only appeared in surface structure as (3). (There are many cases of this type of phenomena). Observe that this revision would obviate the difficulty presented by (5) but, I think, would later be confronted by certain insuperable problems that I now outline. These problems are related to the fact that Like has the syntactic properties of an Adjective, properties for which it seems impossible to account if its underlying structure were that of a Prepositional Phrase. Thus it is that Like may be qualified by a Degree Adverbial.

(6) John is extremely like his father

(7)\*John is extremely in the manner in which his father is

It may take a Result clause

(8) John is so like his father that they are often confused

(9)\*John is so in the manner in which his father is that they are often confused.

In certain contexts it has an adjectival negative suffix.

(10) John is completely unlike his father.

Like occurs in Sentence adverbials

(11) Like his father, John left school at fifteen.

The supposition that like is an adjective has certain testable consequences. Is its distribution that of an adjective? It will be recalled that under the Disjunctive analysis being advocated here, an adjective could occur "directly"<sup>2</sup> both in attributive and predicative positions, as say, defined by a rule such as (12)

(12) Adj. Phrase  $\rightarrow$  (Adj.<sub>1</sub>) - Adj<sub>2</sub>

That like phrases can occur in either of these positions (but apparently not both at the same time) is borne out by the following sentences.

(13) John is extremely like his father (where Adj.<sub>2</sub> = like phrase)

(14) John is happy like a sandboy (Where Adj<sub>1</sub> = like phrase)

In this last example I analyse the phrase like a sandboy as a re-order from the underlying

(15) John is (like a sandboy) happy.<sup>3</sup>

This analysis is moreover supported by the fact that the like phrase in this usage is subject to the same restriction as the Degree Attributive Adverbial, namely, that it cannot itself be modified by another adjective.

(16)\* John is terribly extremely happy

(17)\* John is happy extremely like a sandboy

Let us for convenience call the occurrence of a like phrase as  $Adj_1$  a "Degree Like Phrase", as in (14), and where it occurs as an  $Adj_2$ , as in a copular sentence a "Predicative Adjective Like phrase" e.g. (13), and of course, where it occurs as in (18) below, a "Manner Like Phrase".

(18) John plays like his father.

The fact that like phrases do not occur in attributive nominal position, does not run counter to my claim, since there appears to be a general constraint in English to the effect that complex nominal modifiers may not be fronted.<sup>4</sup>

(19)\* A like a scarecrow man came into the room

(20) A man like a scarecrow came into the room.

There is a usage of the like phrase which differs from those treated above. An example of this is (21).

(21) Like his father before him John died at the age of 68.

In this usage it is characterised by the following properties,

- a) It is very freely permutable
- b) It is not modifiable by an attributive adverbial.

(22)\* Very like his father before him John  
died at 68.

Now, these two properties are those of certain Sentence Adverbials. Let us call this usage therefore the "Sentence Adverbial Like Phrase."

The above considerations not only suggest that Like Phrases are expansions of the category Adj, but thereby also corroborate the suggestions that the Category Adjective may be brought directly into the Verb Phrase.

If, as I have suggested, Like phrases function as Adjectives by what Syntactic mechanism are they created? The traditional analysis which considers like to be a preposition with a N.P. complement will not hold, since it does not account for the adjectival properties of like.

The most immediately obvious solution appears to be an analysis of like as an adjective which takes a sentential complement, i.e. as would be made explicit by a rule such as (23)

(23) Adj --- like +S

What appears to me to be right about such a suggestion is that it does analyse the complement of like as being a sentence. Therefore, although we may have a sentence such as

(24) John played like Peter



is however not the case here, as the unacceptability of (27) shows

(27)\* John swam like his father swam quickly

(28)\*Mary is like her mother is good.

The unacceptable element is precisely that which I have analysed as Adjective, that is the predicate adjective in (28) and the Manner Adverbial in (27)

Such a restriction on the occurrence of a category in an embedded sentence is not without precedent in the grammar of subordination, and is most readily compared with the restriction on certain nominals in Relativisation

(29)\*The boy who the boy hit Peter is Jack.

We account for this restriction by surmising that who is the shape taken by the noun in the subordinate clause, which is identical to the one in the main clause.

It therefore seems necessary to consider this process which I shall call "Like conjoining" to be closer to Relativisation than Complementation, and perhaps that like is a word similar to who, standing for a lexeme that has been (partially?) deleted under conditions of identity with another.

What is the category which dominates this lexeme? Under established theory the category must be N.P., but like as I have shown has all the properties of an Adjective. Such facts lead us inevitably to the

assumption that there may be a process of embedding, similar to relativisation, where the condition is that the sentences to be conjoined contain identical adjectives.

#### The Source for "Like"

We can account for the restriction on categories occurring in the second sentence, and the ungrammaticality of (27), by assuming like to be the realisation of that restricted category (in the same way that who is supposed to be the deleted N.P.) As an approximation,

(30) John plays slowly like his father  
may be considered to have underlying it

(31) John plays slowly + His father play like+  
[slowly]

where like has been substituted for the second token of slowly under the conditions of identity.

I suspect this is not the case for the following reasons.

a) The interpretation of (30) is only two ways ambiguous. The two readings being i) Sentence Adverbial and ii) The Degree (Manner) Attributive Adverb. We know that the Sentence Adverbial reading, must be brought about by a mechanism in which no adjective need be posited in the main sentence, to account for

(32) Like his father John died at the age of 68  
 The analysis of (31) implies that (30) is three ways  
 ambiguous<sup>5</sup>

b) it would be difficult to account for a sentence  
 such as

(33) John plays extremely like his father  
 without setting up an arbitrary deletion

and c) There is also the sentence without an adjective  
 in the upper sentence,

(34) John plays like his father.

These facts are more easily accounted for if we assume  
 that like is not only the realisation of the Adj in the  
 second sentence but that of the Adjective of both the  
 upper and the lower sentence,

Thus, if this supposition is correct "like  
 Conjoining" would occur if the structural description is  
 the following.

(35) John plays  $adj_1$  + His father plays  $adj_2$

$\implies$  John plays  $adj_1$  +  $adj_2$  his father plays  
 (where  $adj_1 = adj_2$ )

There will subsequently be a spelling out rule converting

$[adj_1 + Adj_2] \rightarrow \underline{\text{like}}$ .

Under prevailing theory there is however one  
 condition that must be placed upon this transformation.  
 The two tokens of Adjective to be so conjoined must be

+pro. This is to meet the condition that deletions be recoverable. If, for example we assumed that two tokens of the adjective slow could be so conjoined, to yield like, the lexicosemantic features which constitute this lexeme would be ~~lost~~ under the transformation.

It is my assumption that the lexical representation of this pro-adjective, under ordinary conditions is so. This status of so is revealed in sentences such as

(36) John is happy and Peter is even more so.

It is to be understood therefore that when so is written into a structural description I am in effect referring to the pro-adjective so.<sup>6</sup>

By the analysis just proposed the different types of "Like phrase" would have the following underlying structures.

PREDICATIVE LIKE PHRASE:

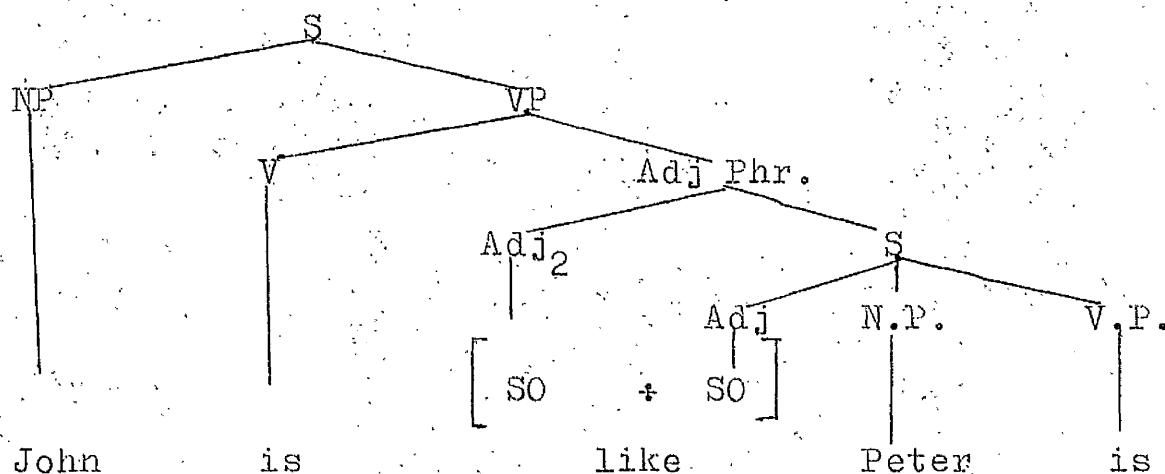


Fig. 2.

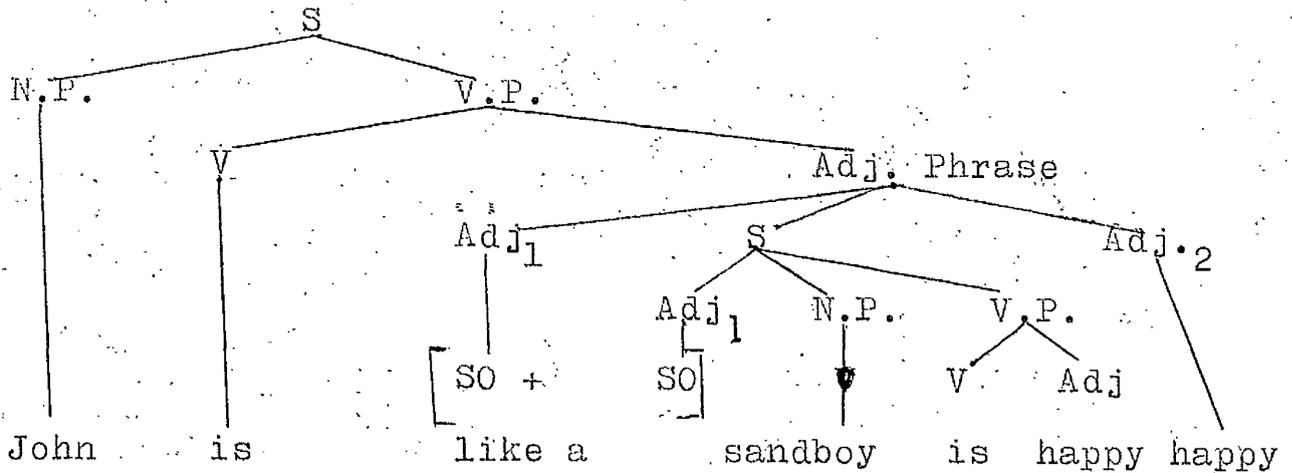
Attributive Like Phrase

Fig. (3)

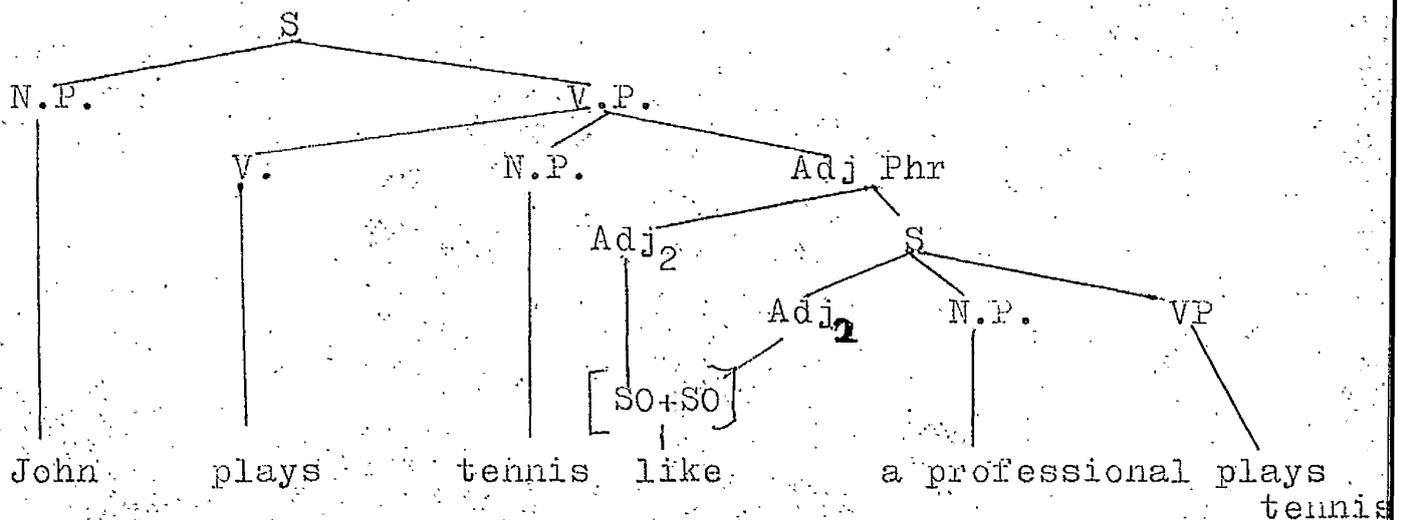
Manner Like Phrase

Fig. (4)

Observe that in the above I have made what I consider to be a necessary assumption, namely that there is a transformation that removes the relevant adjective of the subordinate sentence from its position and places it before the sentence. It will be recalled that a transformation of this sort also occurs in

relativisation.<sup>7</sup> Let us term this the 'Fronting Transformation.'

The Like Phrase as a Sentence Adverbial

The surface Sentence Adverbial was analysed as arising from a variety of underlying structures. There appear not to be Like-Phrase Adverbials corresponding to each type. Thus, corresponding to the Performative Adverbial

(37) Honestly did you do it?

there is no Like Phrase

(38) Like an honest man, did you do it?

Yet, to me at least, this sentence is not Grammatically aberrant. There seems to be little doubt however that Like-Phrases do function as Subject-Selected Sentence Adverbials, since

(39) Intelligently, John fell on the soft ground  
in paralleled and almost paraphrased by

(40) Like the intelligent man that he is, John  
fell on the soft ground.

It also seems probable that like-Phrases function as Sentential-Predicate Sentence Adverbials. Thus (41) is paralleled by (42).

(41) Surprisingly, Bill went to Italy for his  
holidays

(42) Like a prayer answered, his money arrived on time.

Though it is difficult in this case to find convincing examples, it can certainly be shown that at least Like Phrases occur in which I have supposed to be the source sentence for Sentential Predicate, Sentence Adverbials, i.e. in sentences such as the following

(43) For Mary to pass her exam was like a dream  
come true.

(44) John's arriving at the party was like a damper.

What is perhaps worthy of note is that no Like-Phrase Adverbial occurs with a sentence with "That" Complementiser. There is no sentence of the following form

(45)\*That John did to this is like (a fact  
God's truth

This is surprising, since the properties of the Adjective in these structures affect the choice of the complementisers. Certainly occurs with a "That" complementiser, and necessary usually with a For-to or poss-ing. Now, the 'that' complementiser is considered the Unmarked form.<sup>8</sup> It would be therefore most natural to expect that the pro-adjective being the least specified of all adjectives, would occur with the unmarked complementiser.

The types of Sentence Adverbials most usually represented by Like Phrases are therefore the Subject Selected Sentence Adverbial and the Sentential Predicate. The structures underlying them are the following.

SENTENTIAL PREDICATE

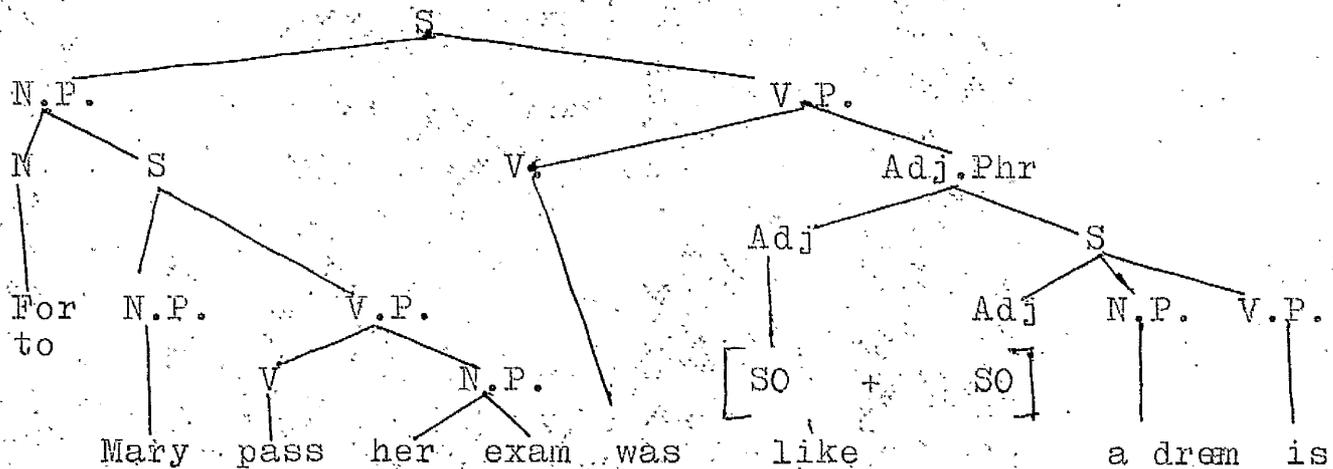
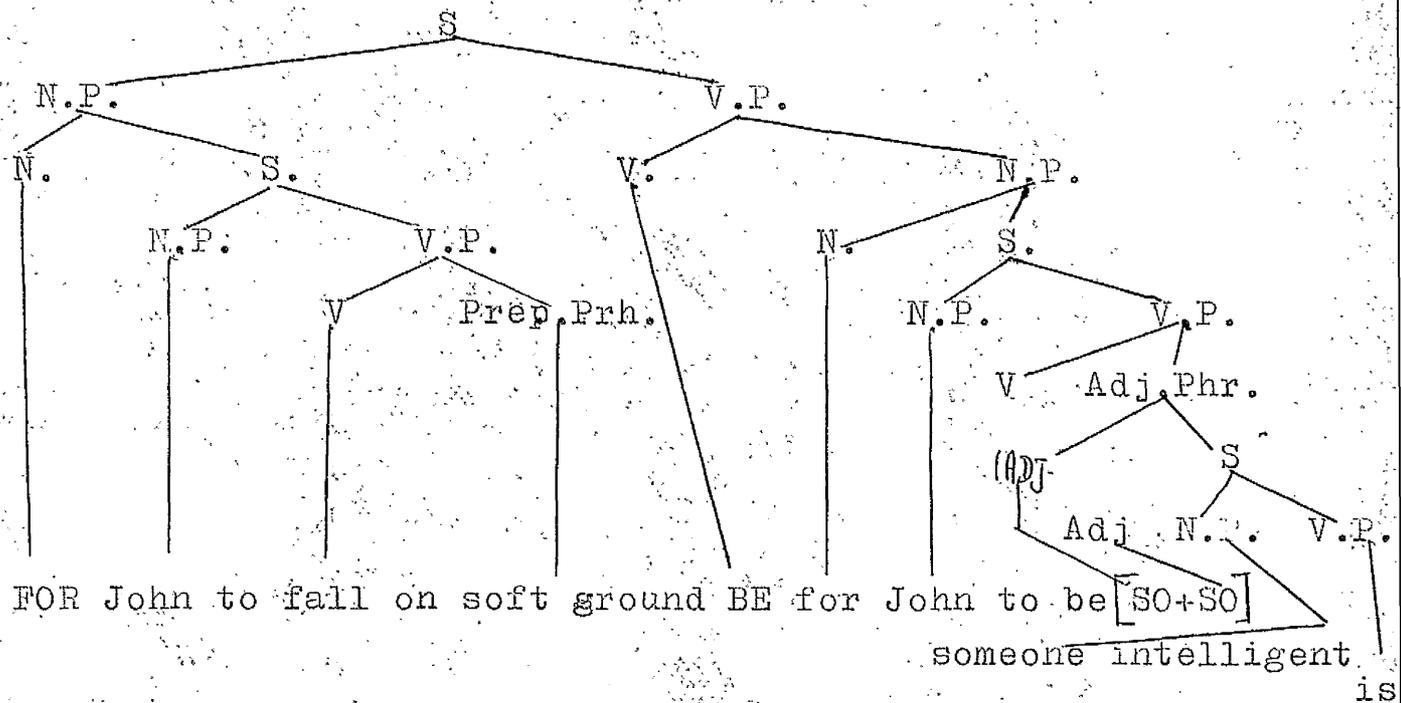


Fig. (5)

SUBJECT SELECTED SENTENCE ADVERBIAL



(Fig. (6))

THE RELATIONSHIP WITH "AS"

That there is a close and apparently regular relationship between as and like has been often observed by grammarians. Their distribution has generally been accounted for by means of a rule which informally stated is the following:

(46) As occurs when a Verb follows and like elsewhere. This rule is not really an adequate description of practice in many, if not most, dialects where like appears to be alternate with As in the case of a following verb.

(47) John plays like his father used to play. Nevertheless, I find little to contradict the general principle of the analysis; namely that like and as are the same in Deep structure. Their phonological forms varying in accord with certain surface structure conditions.

Since as is the shape taken, where no deletions occur, we might assume that it is the more basic of the two forms. However, if we retain our assumption about their being the same, we have to assume that LIKE the adj. precedes AS the surface structure conjunction. In other words, one of the conditions on AS appearing in surface structure is that it has no Degree (or other adjectival qualification).

(48)\*John plays extremely as his father plays

In other words, if we assume like to be basic, no stage of the derivation is unacceptable as a surface form, if we assume as to be more fundamental we must have a stage (48), which is unacceptable as a surface form. Therefore, unless further evidence appears to disprove this, for this trivial but to me aesthetic reason I will assume the underlying morpheme to be LIKE.

#### THE EMBEDDED S IS A N.P.?

The facts so far outlined appear to assume that the embedded S is the direct S complement of the Adjective So (see Fig. (2) ). I think, however, that there is evidence which must indicate that in fact like takes an N.P. complement which is subsequently developed as an S. This evidence is provided by the following examples.

(49) What is John like?

(50) John played badly that day but he didn't play like it again.

I interpret the occurrence of What to be the question pre-form of N.P. As in

(51) What did John eat?

The same conclusion is indicated by it in (50).

I assume therefore that the structure represented in Fig. (7) actually underlies a Sentence such as (52)

(52) John plays like his father plays.

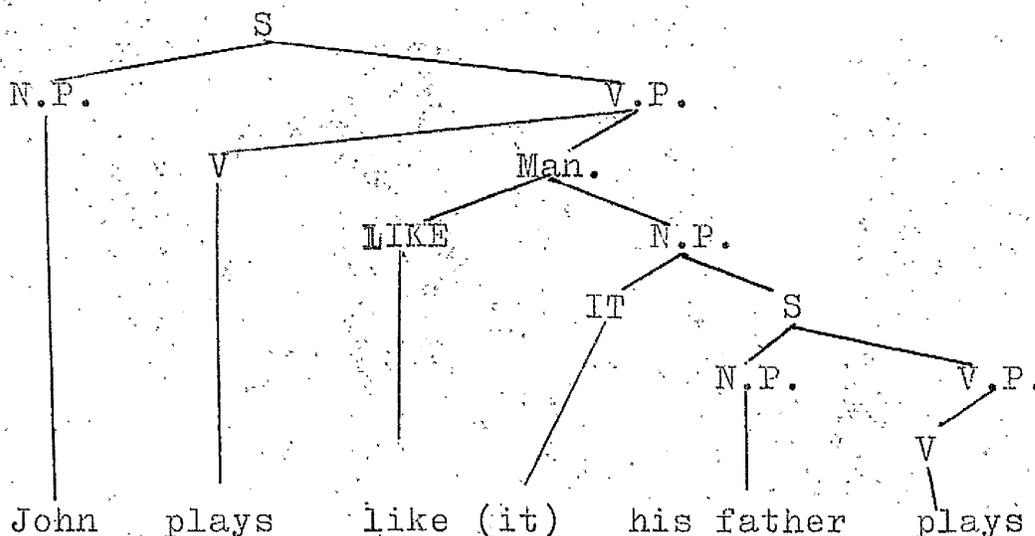


Fig. (7)

The underlying surface Structure is therefore more like (53)? John plays like what his father plays

Interestingly enough this form (53) is acceptable as normal in certain dialects. However, it must, if we accept this hypothesis, be assumed to be incorporated or deleted in Standard English.

This assumption that like is followed by a N.P. does appear to involve us in another problem, that of characterising any development of N.P., other than into S, as ungrammatical, since although N.P.'s do appear in surface Structure as concrete nouns, their interpretation (as well as grammatical simplicity) shows them to be reductions of Sentences. Thus, to disprove this, one would have to find a sentence of the form (54)

(54) John plays like N.P.

in which the N.P. is not also associated with the verbal action.

Such expressions can be found in English, but they appear not to be a productive process.

(55) John swam like hell to win the race.

It therefore seems intuitively better to assume that like is followed by the elements of a sentence.

The occurrence of what and it can be accounted for in another way if the ordering of the rules so permit it. Assume the structure of Fig. (8) to underly (52)

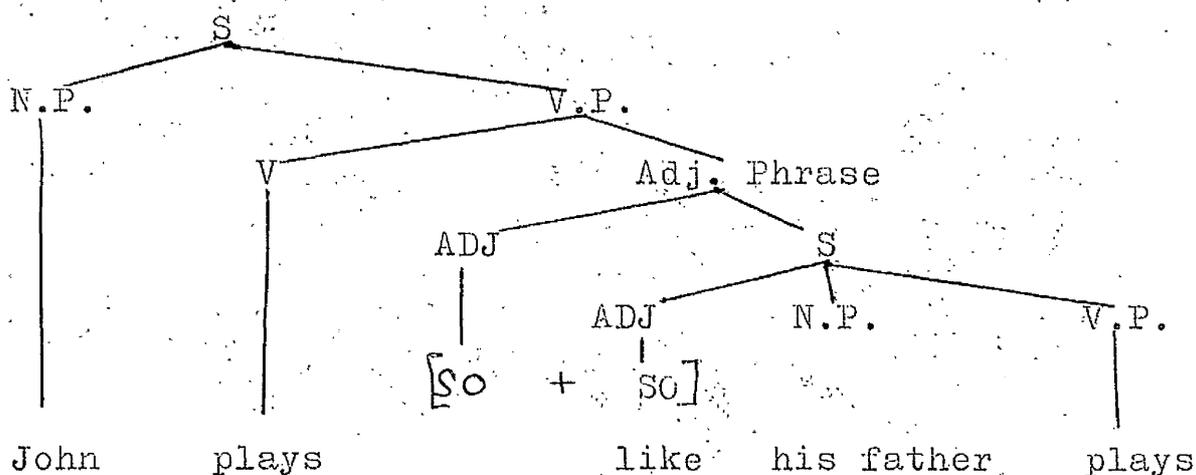
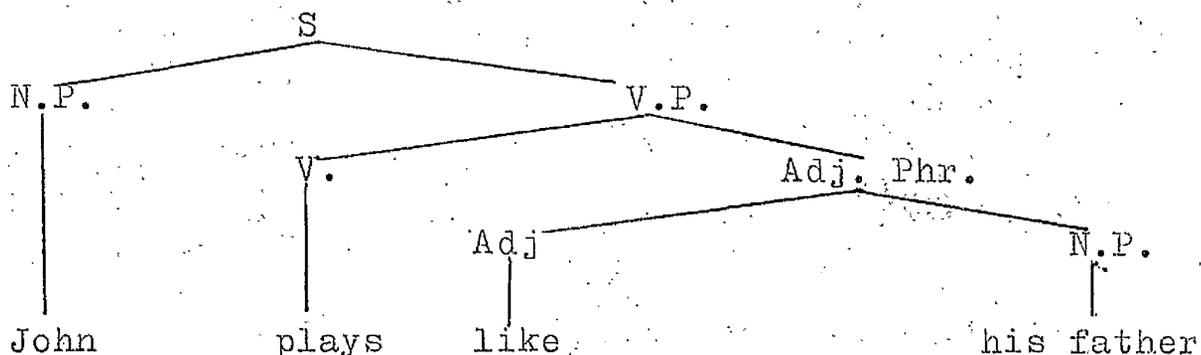


Fig. (8)

We know that here is a process that eliminates the V.P. under identity with the V.P. of the upper sentence. It is also assumed that the Adj. Node of the lower sentence is also moved out of this sentence to be incorporated into LIKE, by SO+SO being conjoined. The lower sentence now contains an S that does not branch. It is by the Ross convention, deleted.<sup>9</sup>

The resultant structure is now that of Fig. (9)



(Fig. (9))

We have now only to substitute for the lexeme father an inanimate pro-form nominal, and we have the structure underlying

(56) What does John play like?

and with slight additions the underlying structure of (57)

(57) John didn't play like it again.

In other words (56) and (57) are not the pro-forms of an embedded S nominal but are exactly parallel to (58) and (59).

(58) Whom did John play like?

(59) John didn't play like him again.

My claim is therefore that Like is not followed by an N.P. Sentential Complement, but arises from a structure defined by the rule

(60) Adj. Phrase  $\rightarrow$  Adj-S

where the S is a direct (i.e. dominated directly by the same category that dominates Adj.) complement of the

Adjective. A structure, which I think can be justified on independent grounds, as being the necessary underlying structure of

(61) Mary was slow to jump off the boat

Part of the theoretical importance of the Like Phrase for this study hinges on the fact that it can be shown to be more adequately analysed as an Adjective than as a Preposition Phrase. It provides therefore useful confirmation of the suggestion I am making that Adjectives may be "directly" introduced as an expansion of the V.P. Some of the evidence supporting its status as an Adjective comes from the claim that it occurs as a Sentence Adverbial. This claim is only valid however, if it can be shown that Prep. Phrases do not occur as Sentence Adverbials. There is however one phrase of Prep. Phrase structure which might be taken as counter evidence.

"IN THE SAME WAY AS"

(62) In the same way as a professional John plays on Sundays.

(62) appears to be a perfectly acceptable sentence in many (if not all) dialects. The problem posed is that of analysing the origin of the prepositional phrase "in the same way as." This might appear to be a counter-example to my claim that prepositional phrases did not occur in de-adjectival sentence adverbials. Is the deep structure that represented by Fig. (10)?

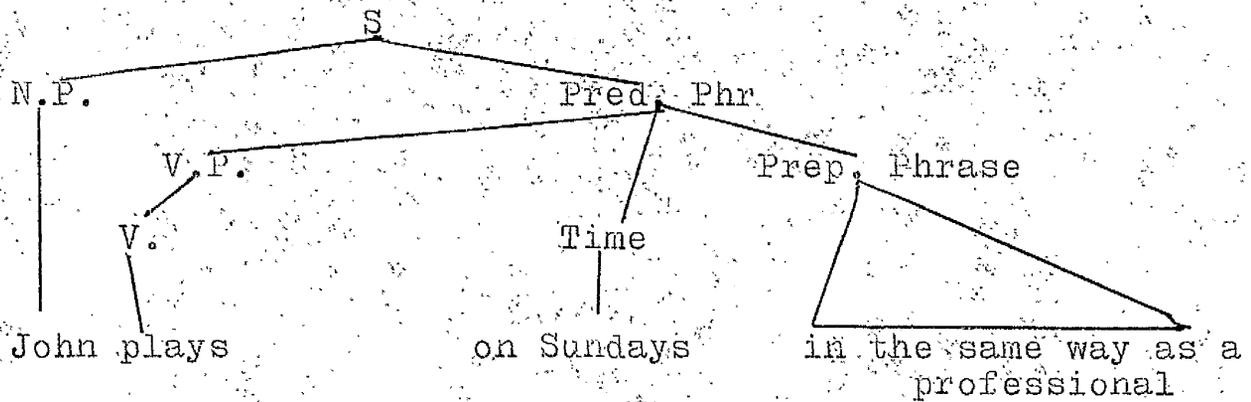


Fig. (10)

If this should be the case then there is indeed a possibility of assuming that adjectives appear only as the predicates of Nouns (as is generally held) and counters my claim that they may occur with verbs, and this would also constitute evidence for the Katz and Postal claim that all adverbials originate in D.S. as prepositional phrases.

I feel, however, that this cannot be the very Deep Structure of (62); the reason being that the prepositional phrase is not freely expandable in the way to be expected of a category of the Base. As evidence of this note the unacceptability of the following

(63)\* In a terrifyin way John plays on Sundays

(64)\* In a way which made me laugh John plays on Sundays.

It is possibly the case that the following are grammatical

(65) In the same stupid way as a professional  
John plays on Sundays

How to account for "In the same way as"

The only way that I can see at this moment for accounting for this is to consider that it is a lexical substitution. That it is introduced at the stage of lexicalisation. This would account for the fact that although in surface structure a prepositional phrase it has a "formula-like" surface form.

This may be compared with other compound syntactic forms that nonetheless function as a single category e.g. (66)

(66) Be that as it may.

In other words there is a rule of Lexical substitution in English to the effect that wherever like + S appears we may substitute for like the phrase in the same way as.

CONCLUSIONS

I have argued that Like Phrases function as Manner Adverbials, Degree Adverbials, Sentence Adverbials and as a Predicate Adjective, and display in these usages the syntactic properties that characterise the category adjective. Under Current Theory a unitary analysis cannot be given to Like Phrases in all four of these functions nor can its adjectival properties be accounted for.

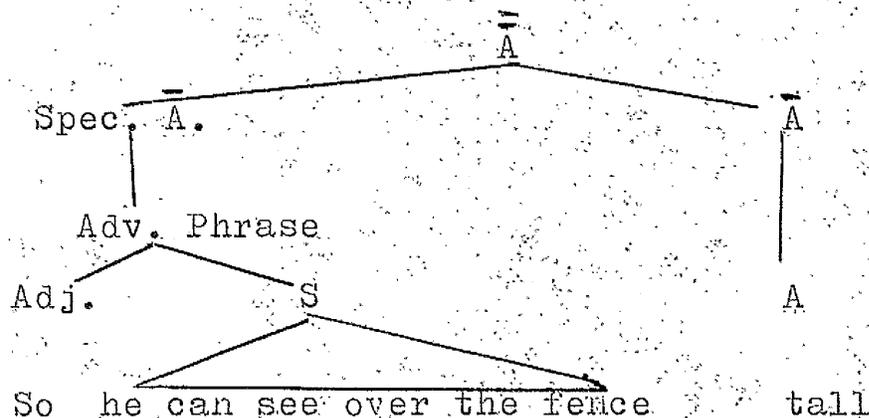
If however, Like Phrases are analysed as adjectives and Adjectives are permitted directly to form

part of the V.P., as I suggest, then the functional distribution and the syntactic characteristics of Like Phrases can be adequately and unitarily accounted for. It therefore provides support for the revisions to the theory that I am proposing.

The Syntax of Like Phrases, as developed here, involves, however, certain innovations. It supposes that there is a recursive process by which two tokens of pro-adjectives can, under certain conditions, be conjoined. The syntactic facts have obliged me rather reluctantly to make this proposal. If verified, it will alter the prevailing neat concept of the tryad of sentence conjoining mechanisms.<sup>10</sup>

FOOTNOTES TO CHAPTER 7

- be
- 1) It should be noted that there is a negative form unlike which is used in the Predicate Adjective function, but not, in my dialect at least, as a Manner Adverbial.
  - 2) "Directly" is here used in a special sense. Let us define it. A category A occurs "directly" in a category B, if in Deep Structure A is an immediate expansion of (i.e. immediately dominated by) B.
  - 3) J. Bowers (1970) gives a similar analysis for these modifying phrases. Thus underlying "so tall that he can see over the fence" is the following underlying structure.



- 4) Adjectives which modify nouns and whose source is a Relative Clause may be analysed as arising in front of the Noun, as part of the Det. constituent or post-nominally. Depending on which of these assumptions is made, the transformation involved will either be considered post-posing or fronting. Bowers (1970) makes the former assumption, (which I now think is essentially correct) and posits an "Adjectival Movement" Transformation -

a) Art.-A-N-e  $\implies$  Art- $\emptyset$ -N-A

It will convert c) into d)

c) A yellow with age book

d) A book yellow with age

5) Examples of this in which phrases other than Like Phrases are concerned are,

i)\* The on the corner boy is my best friend

ii)\* The in England weather is terrible.

There have been some proposals from Rose (1967) on how the notion of complexity might be defined.

6) So is apparently the realisation of other categories.

e.g. a N.P. in ( i )

( i ) I told you so

a V.P. in

(ii) John kissed Mary and so did Peter.

7) Klima (1964) called it "WH-attraction".

8) See R. Lakoff (1968) pg. 24.

9) See J.R. Ross - "A Proposed Rule of Tree-Pruning" in Riebel & Schane 1970.

10) The three recursive processes in language are conjunction, relativization and complementation" R. Lakoff (1968)

## CHAPTER 8

### A GENERAL PROCESS & RESTRICTION

#### "-LY" ATTACHMENT

One of the pervading conclusions of this study has been that -Ly adverbials are in all cases derived from tokens of the category Adjective. The entailment of this conclusion is that there is in the Grammar at some stage a process which attaches -LY to these adjectives. Let us refer to this process as "-LY Attachment".

It would be desirable to analyse "-LY Attachment" as a single process occurring at a determined stage in the Grammar, such that all the tokens of adjective that undergo this do so at the same time and in accord with some common set of syntactic conditions.<sup>1</sup>

To my knowledge, no attempt has yet been made in the framework of Transformational Grammar to define this process as a unitary phenomenon. Implicit in Current Theory is the assumption that such a process must exist for Sentence Adverbials, but it has never been made clear, nor has it been indicated, how the supposed Prep. Phrase underlying the Manner and Degree Adverbials became, optionally, Adj +LY.

I shall approach this problem therefore with the assumption that it is a Transformational process and that it is a comparatively late rule, the latter consideration being an implication of the fact that so many transformations

must occur to the structures that underly these adverbials before they become subject to "-LY Attachment." With these assumptions let us examine the Derived Structures at the stage of which "-LY Attachment" is most likely to occur. These Derived Structures are, surprisingly, not so varied as their Deep Structure sources, a fact which I find interesting and which I shall return to later.

The Structure of the Sentence Adverbial is represented in Figs.(1) - (3).

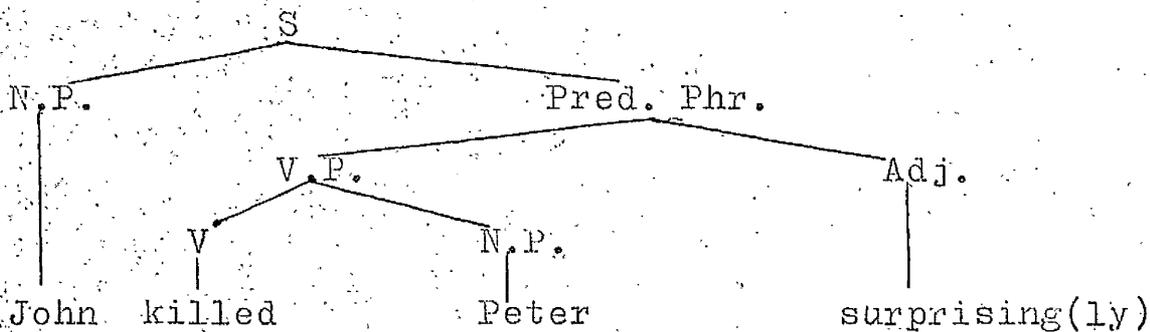


Fig. (1)

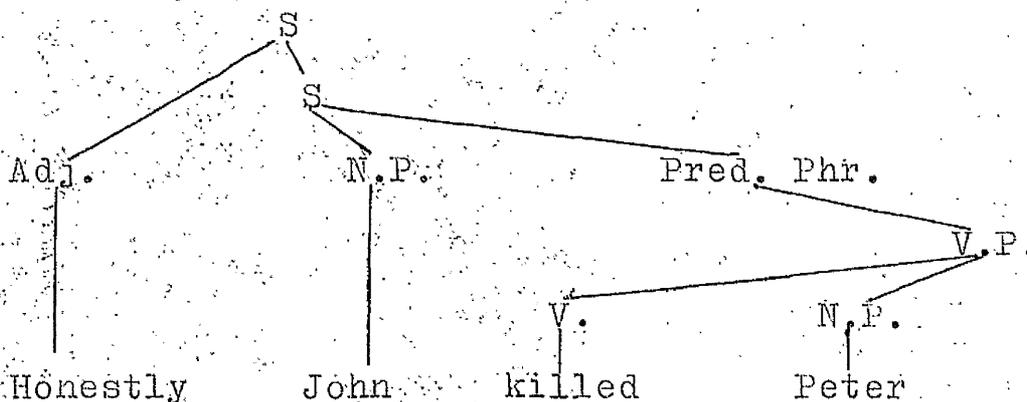


Fig. (2)

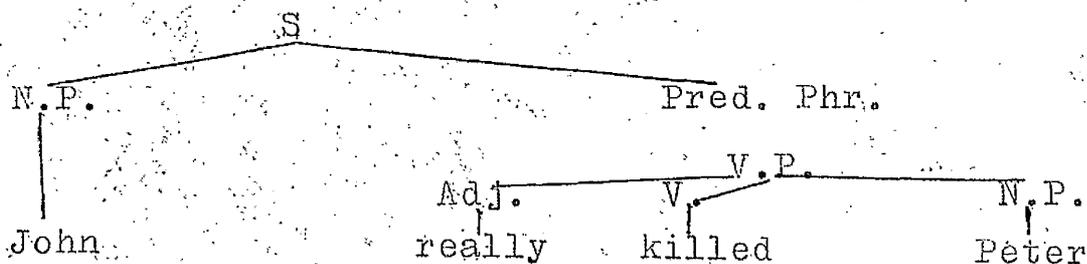


Fig. (3)

Fig. (1) represents the structure of the Sentential Predicate and the Subject-Selected Sentence Adverbial, Fig. (2) that of the Performative and Fig. (3) that of the Attributive Sentence Adverbial.

Both the Subject-Selected and the Natural Manner Adverbial appear to have the same derived Structure at the moment of -LY Attachment. This is represented by Fig. (4).

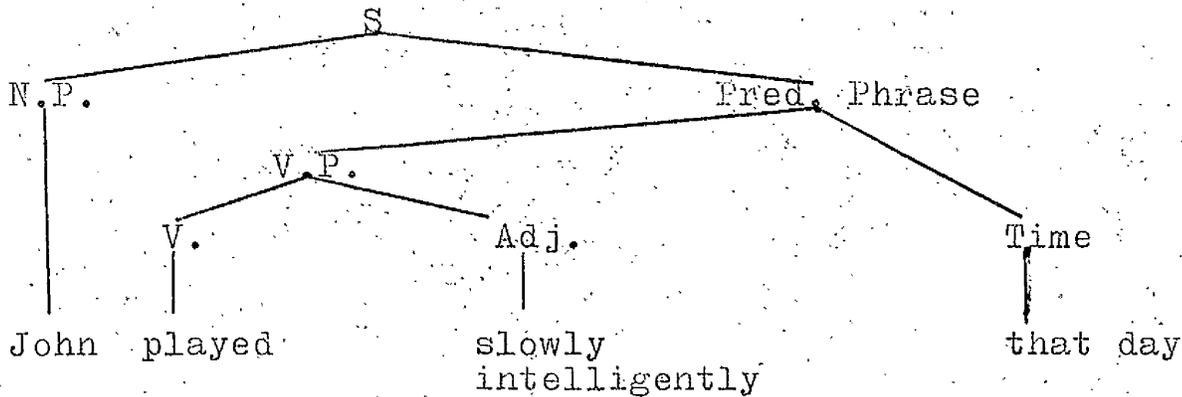


Fig. (4)

We see therefore that "-LY Attachment" occurs to Adjectives dominated by V.P., those under Pred. Phrase and also (though perhaps for not the same reasons) to the Performative Adverbial,<sup>2</sup> which I assume to be a direct daughter of the S node. Before making an attempt at surmising what the conditions of this transformation might be it should be noted where "-LY Attachment" does not occur. Two of these environments are exemplified by sentences (1) and (2).

(1) Bill is considerate

(2) The happy man is a joy to behold.

Under prevailing theory, the attributive adjective is derived from the predicative, so the fact that neither considerate

nor happy undergoes its -LY Attachment is probably part of the same constraint.

Given the above facts, it is no doubt possible to hypothesise various sets of conditions that would adequately account for the distribution of -LY. There are certain facts that I think are crucial. These concern the Adjectives, dominated by the category I have been calling Adjective Phrase. When this Adjective Phrase is expanded into two adjectives, there are the following possibilities, with regard to \*ly Attachment. Either both Adjectives undergo -LY Attachment, in which case there is an Adverbial Phrase such as that of (3).

(3) John played extremely slowly

This happens, of course, when the main verb is not a copula or, if the verb is a copula verb only the attributive adjective undergoes -LY Attachment

(4) John is extremely slow

The structures of (3) and (4) are represented in Figs.

(5) and (6).

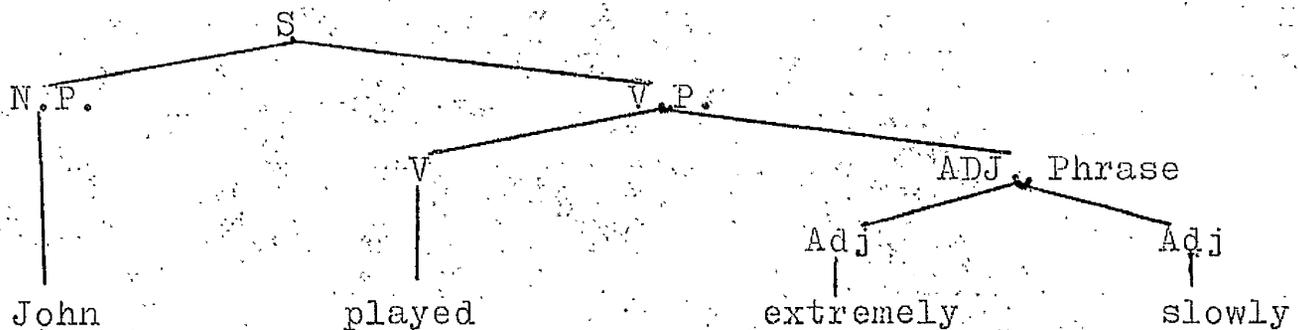


Fig. (5)

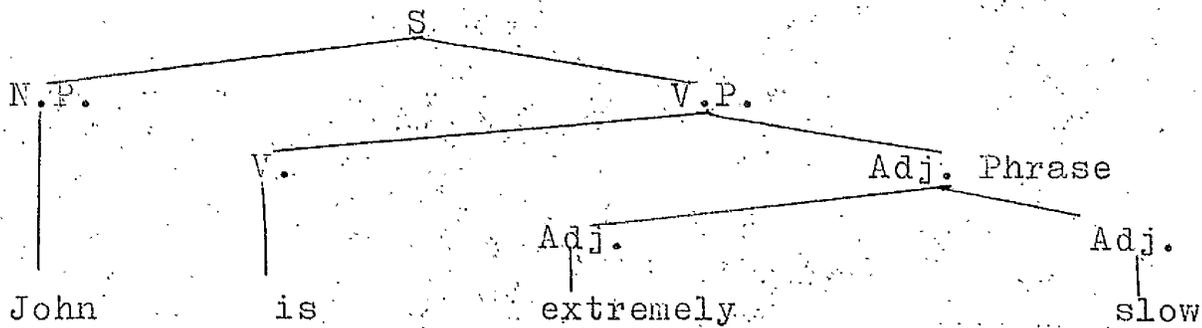


Fig. (6)

Whereas, before, it might have been possible to define a Transformation over the facts presented in Figs. (1) to (4), by stating the single condition that an adjective which is the predicate of a copular sentence does not undergo OLY Attachment - a notion which is easily made formal - and by ordering the transformation which places the adjective in front of the noun to follow \*-Ly Attachment, to account for Attributive Adjectives, the facts represented by Fig. (5) and (6) no longer make this possible.

What is particularly unfortunate is that not only has the consideration of the structure of Fig. (5) destroyed a neat and unitary explanation of a -LY Attachment, and one which seemed intuitively reasonable, in my opinion, but it has also destroyed the possibility of making any unitary statement over these structures, since there is no non Ad hoc manner of specifying that both adjectives take -ly in (Fig. (5) but only the first in Fig. (6) and using the same statement to account for the absence of -LY in (5).<sup>3</sup>

(5) John is slow

We shall probably be obliged therefore to state each type



For the moment, however, let us be content with a formulation of "LY Attachment" which states that all Adjectives in a Sentence undergo this transformation except those that at this stage modify nouns.

Even thus informally stated there are sentences that present themselves as possible counter-examples. Such a sentence is (8).

(8) Furious (with everyone) John stalked out of the room. The Derived Structure of (8) would appear to be that of Fig. (7).

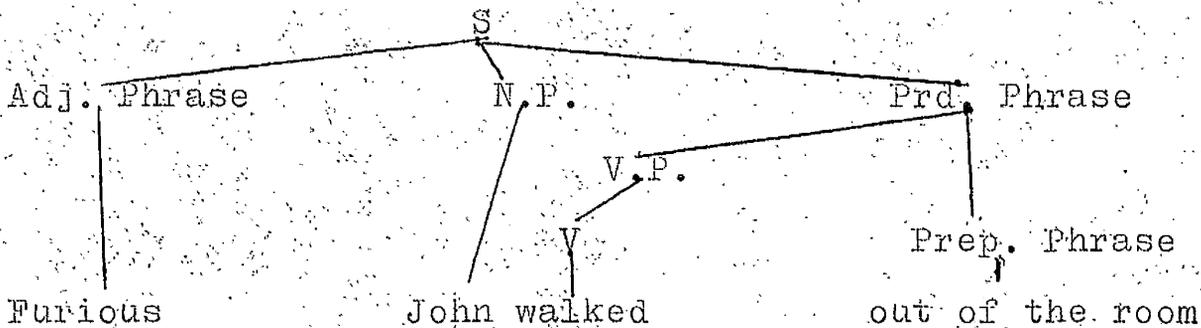


Fig. (7)

What is puzzling is that this is similar to the Derived Structure accorded to the Sentence Adverbials which, as we know, do undergo "-LY Attachment". The main source of the problem is that we do not know, for sure, the Deep Structure Source of (8). One suspects that the initial Adjective Phrase is the reduction of an Embedded Sentence. Perhaps, the Deep Structure is the underlying structure of (9).

(9) John was furious when John walked out of the room.

but, presumably it could also be either

(10) While John was furious he walked out of the room  
of

(11) Because John was furious he walked out of the room.

Another apparent counter-example is that represented by (12)

(12) The sentries remained rigid at their posts for hours

This however, appears to be an optional variant of (13)

(13) The sentries remained rigidly at their posts for  
hours

and both are apparently relatable to

(14) Rigid, the sentries remained at their posts for hours.

The last sentence seems to be structurally identical to (8).

The distribution of an adjective (or adverbial) such as rigid in relationship to the verb appears to be the following. In sentence initial and final positions, there is a preference (at least in my dialect) for the Adjectival form, with -ly attachment occurring only in case the adjective is sentence-medial. Those of (15) are therefore more acceptable than those of (16).

(15)i. Rigid, the sentries remained at their posts for hours.

ii. The sentries remained rigidly at their posts for  
hours

iii. The sentries remained at their posts for hours, rigid.

(16)i. Rigidly, the sentries remained at their posts for  
hours.

ii. The sentries remained rigid at their posts for hours.

iii. The sentries remained at their post for hours, rigidly.

Observe, however, if there is no Place Adverbial present in the sentence there can be no -LY form.

(17)\* The sentries remained rigidly for hours.

It seems to me therefore that we can explain this fact, i.e. that rigidly can occur with an apparent copular verb, that in the cases where a Place Adverbial occurs, the verb remain becomes a locative verb. This, in English, probably involves only a change in feature specification of the lexeme, but in some languages, e.g. Spanish incurs a change of lexeme, estar v. ser. Having thereby lost its purely copular use, -ly attachment can therefore now be considered possible by the normal rule.

This explanation, though sufficient to characterise (15)ii. as grammatical and (17) as ungrammatical, does not explain why (15)i. and (15)iii. are better than (16)i. and (16) iii.

Consider now our second problem which involves the question of why in

(18) Furious, John stalked out of the room.

the adjective furious, in this position does not undergo -ly Attachment. Consider the relationship of the pre-posed adjective in the following Sentences to the rest of the sentence.

(19)i. Obviously John had eaten at five o'clock

ii. Intelligently, John had eaten at home before leaving.

iii. Honestly, John had eaten already when he arrived.

iv. Furious, John had left home without eating.

In my judgement the relationship of obvious and intelligent to the rest of the sentence is structurally closer than that of furious in (19) iv. I believe that there need not be any pause at all between the former two and the following proposition, whereas in iv. a comma type pause is indispensable. If this is so then this implies that the structural relationship between the initial adjective and the rest of the sentence is in fact different for iv. than for i. and ii. Our solution might be to show that furious in iv. because of this relationship does not undergo -LY Attachment.

Before attempting this consider (19)iii. The relationship of the Adverbial to the rest of the sentence appears to me to be similar to that which characterises furious. It might therefore be considered to destroy the case I shall try to make, since it has undergone "-ly attachment."

But this is precisely the Sentence Adverbial which I had assumed was structurally different (see Fig. (2)). The fact that it has undergone "-LY Attachment" can be accounted for by the fact that it started out as a Manner Adverbial in the upper sentence, and consequently does not take -ly as the result of its derived structure. Now the structure of the Performative Adverbial was represented as

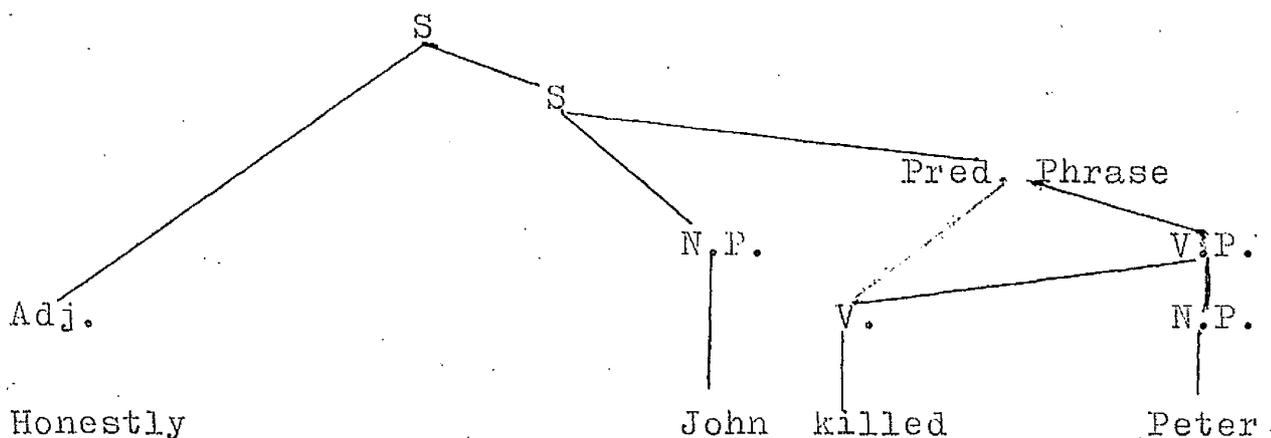


Fig. (8)

In all other cases of "-LY Attachment" the Adjective is dominated by Pred. Phrase. It is therefore possible to establish a constraint on the scope of -LY Attachment by stating that -LY Attachment occurs to all Adjectives dominated by Pred. Phrase that do not qualify nouns at the stage of derived structure at which this transformation occurs.

Sentences such as (18) would therefore have the derived structure similar to that of Fig (8), which, although we are uncertain of its exact origin, is borne out by the intonational facts discovered by contrasting the sentences of (19)

This explanation should also account for the fact that (15)i. and (15)ii. are more acceptable than (16)i. and (16)ii.

The definition of "-LY Attachment", must also define (20)i. as grammatical and (20)ii. as ungrammatical.

- (20)i. John ate his eggs raw  
 ii.\*John ate his eggs rawly

Although the exact source of the final adjective seems to me doubtful, it cannot be said with any certainty that it does or does not constitute a counter example to my claim. The most likely source appears to be either a Temporal or a non-restrictive relative clause, in which case, the assumption can be reasonably made that, in the one case, the adjective is dominated by a different token of S, and, in the other, that Conjunction deletion occurs after -ly attachment.

#### A Surface-Structure Condition on Well-Formedness

One of the facts noted earlier, which might be of some theoretical relevance, is that given the productive processes involved in Adverbialisation not all of them could be used in any one given Surface Structure Sentence.

To illustrate this, consider that there were considered to be at least three sources for Sentence Adverbials, i.e. Performative, Subject-selected, Sentential Predicate. The following, however, must be characterised as deviant.

(21) i.\* Honestly, certainly John killed Peter.

ii.\* Obviously, intelligently John killed Peter

Yet the presumed sources for these sentences are all well formed.

(22) i.\* I am being honest when I say that it is certain  
that John killed Peter

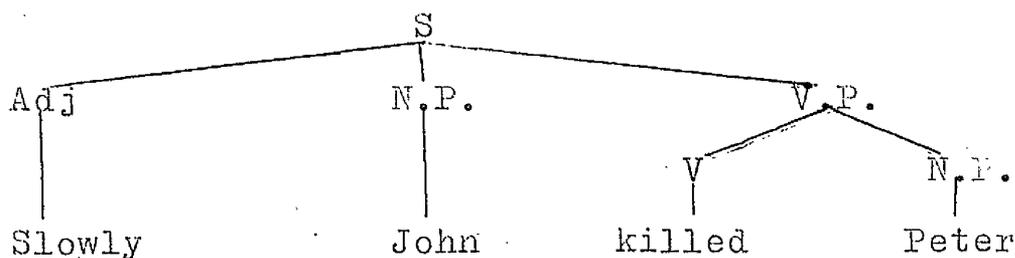
ii. It is obvious that it was intelligent of John  
to kill Peter.

Nor does it seem possible to block this in any principled manner. Not only is it the case that no sentence may have more than one Sentence Adverbial in a certain position in structure, but the condition is wider still, and appears to be that a Sentence may have only one of a specified set of adjectives at this particular slot in surface Structure, even if these are not Sentence Adverbials as in the case of the topicalised Manner Adverbial or the "Absolute Adjective".

The "Topicalised Manner Adverbial"

- (23)i. Slowly, Hank turned his horse towards the setting sun
- ii.\* Obviously, slowly, Hank turned his horse towards the setting sun
- iii. Obviously, Hank turned his horse slowly towards the setting sun
- (24)\* Certainly, happy, John walked out of the room.

This implies that there is a node in Derived Structure which, once filled, blocks all further lexeme occurring under that Node.



Dif. (9)

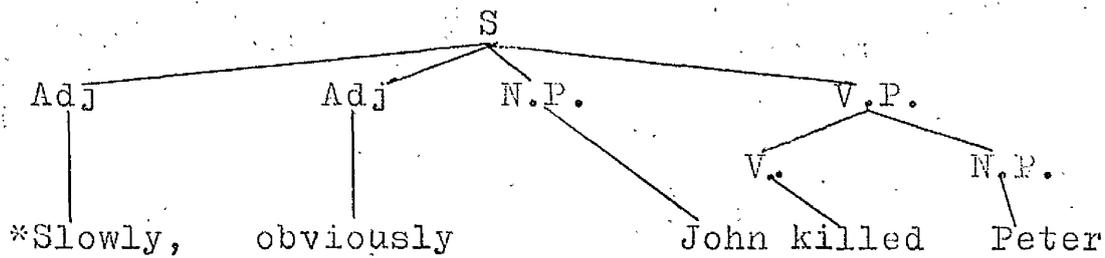


Fig. (10)

This restriction does not apply to two sentence Adverbials where one is in Sentence Medial position

- (25) i. Obviously John had really eaten the cake  
 ii. Certainly Mary had craftily stayed at home all day.

As I have already mentioned the only exception to this restriction appears to be the Scope Adverbial.

- (26) Obviously, technically, the Irish are not English.

Whatever the nature of the restriction it is obvious that one of the relevant notions on which the restriction operates is Adjective, applying both to the simple adjective as in (24) and to the de-adjectival Adverbials. Stated informally the restriction is therefore this

- (27) No surface sentence may have more than one preposed Adjective Phrase

Formally I cannot discover how this restriction is to be stated. It may perhaps be eventually possible to utilise the constraints on transformations similar to those suggested by Lmonds.<sup>4</sup>

As however, the transformations we are here discussing are Root Transformations, and the context here must, I think, be characterised as a Root S., a Structure Preserving condition is not here apparently applicable.

In this chapter I have considered two general aspects of de-adjectival adverbials. In the first place I have attempted to define the process or rather the conditions under which adjectives acquire the suffix -LY. I have claimed that informally this is best stated with the negative condition that adjectives outside of the predicate phrase and those qualifying N.P. do not undergo \*-LY Attachment. So far, no formal statement of this has been given because the requisite notion of "qualifying" cannot adequately be made formal in terms of the "Aspects" Model. I have considered possible counter-examples to this theory and have opted to retain my hypothesis since although little is known about the derivation of the adjectives, they appear to conform<sup>to</sup>/the above constraints.

In the latter part of the chapter I have considered a constraint that characterises as ungrammatical any sentence with more than one pre-posed de-adjectival Adverbial. This constraint is such that it does not appear to be amenable to a transformational statement.

In both of the above processes the important notion does not appear to be Adverbial or Prepositional Phrase but simply Adjective.

FOOTNOTES TO CHAPTER 8

- 1) There is of course no a priori reason for considering that all processes of -LY Attachment must be the same. That all instances of it should be stateable as one process is desirable from the point of view of simplicity.
- 2) By assuming that the Performative Adverbial arises in a higher sentence and since its derivation is less well defined theoretically, it is possible that it has undergone -LY Attachment while in the upper sentence.
- 3) Admittedly there is a possible definition of the conditions but one which I eschew, since to me it seems unnatural, that is, we could state that -LY Attachment does not occur to the right-most adjective in a copular sentence, but necessarily to all others.
- 4) See J. Emonds "Constraints on Transformations" 1970.

CHAPTER 9

THE REVISED THEORY

The Revisions to Current theory that I have proposed in the preceding chapters affect only the accepted analyses of Manner and Degree Adverbials, and constitute in effect a return to the Disjunctive type analysis current in the literature before the publication of the "Integrated Theory".

Instead of the rules (1) and (2) currently used to introduce the category Prep. Phrase from which Manner and Degree adverbials are respectively supposed to arise

(1) V.P.  $\longrightarrow$  V.(N.P.) (Prep. Phrase)

(2) Ad. Phr.  $\longrightarrow$  (prep. Phrase) Adj.

I have reverted to a formulation akin to that prevalent in "Primitive Theory".

(3) V.P.  $\longrightarrow$  V (N.P.)  $\left( \left\{ \begin{array}{l} \text{Adj. Phrase} \\ \text{Prep. Phrase} \end{array} \right\} \right)$

(4) Ad. Phrase  $\longrightarrow$   $\left( \left\{ \begin{array}{l} \text{Adj.} \\ \text{Prep. Phrase} \end{array} \right\} \right)$  Adj. P.

The analysis I propose of Sentence adverbials, though perhaps more detailed than any that have yet appeared, is in no sense a break with previous theories, as is the introduction of the category adj in the Revised Theory of the Manner Adverbial.

In fact there are three contraventions of prevalent "syntactic practice" advocated in this study, the

refutation or confirmation of which is of some interest.

The contraventions of established practice are the following

- a) The introduction of the category adj as a "direct" qualifier of the verb, e.g. by Rule (3) above.
- b) The analysis of "Like phrases" as a relativisation process involving two pro-adjectives.
- c) The introduction of abstract nominal predicates, in which the same selectional restrictions prevail as between the subject of a copular sentence and its predicate adjective.

(5) John is of such intelligence

(6) John is so intelligent

and the positing of this nominal as the source for the with+N.P. manner Adverbial.

These are, I think, innovations, but innovations which are perfectly compatible with the mechanism of the 'Aspects' Model, and which should be confirmed or refuted by subsequent investigation.

#### AN ASSESSMENT OF THE REVISED THEORY

The proper yardstick to be applied to any theory is not that of "correctness", since this implies the omniscience of the investigator and hence the negation of the term "theory". Rather it should be judged by its usefulness,

that is to say the extent and accuracy of the predictions it permits.

It will be recalled that Katz and Postal claimed for their theory (which I have here termed the "Doctrine of the Unique Source") that it allowed them to predict the adjectives which could occur as -ly Manner adverbials as being coextensive with the set of adjectives that occur in the in adj-way construction. I have tried to demonstrate that this claim is wrong, and therefore cannot be held as a justification for their theory.

And again it might be said in justification of their theory that it was compatible with

- a) The interrogative theory of Katz and Postal
- b) Chomsky's theory of functional definition
- c) The derivation of Manner Nominals.

If eventually it can be shown that these three theories (i.e. a), b) and c) ) are the best accounts of these Syntactic facts. They purport to describe and if the "Doctrine of the Unique Source" is most compatible with these theories, then it is an argument in favour of the "Unique Source". However evidence of this type is seldom clear-cut. Hence it is worth while comparing two rival theories with regard to <sup>the</sup> syntactic facts they account for

THE EXPLANATORY POWER OF THE REVISED THEORY

The Revisions to Current Theory that I am proposing embody three points that enable one to explain certain facts for which there is no account in terms of the Unique Source Analysis.

I. Dual Categorical Source:

By assuming that Manner and Degree adverbials have underlying them two separate and independent categories Adj. and Prep. Phrase, neither of which is derived from the other we can account more easily for

a) The fact that there are adj+LY Manner Adverbials which are not paraphrased by the same adjective in the Prep. Phrase construction.

(7) John saw the match easily.

(8)\*John saw the match in an easy way.

b) Conversely, there are Adjectival type forms in the Prep. Phrase Manner Adverbial that have no corresponding Adj-LY form.

(9) John played in the usual manner

(10)\*John played usually.

c) By the same mechanism we can account for the fact that true Past Participles do not take -LY, though they occur in the Prep. Phrase form.

(11) The man walked in a contorted manner

(12)\*The man walked contortedly.

d) It allows us to posit two structurally different sources for Manner Adverbials, one of which is in a higher sentence, and which accounts for the contrast between Subject-Selected and Natural Manner Adverbials.

e) It obviates the necessity to posit some arbitrary spelling out rule that will rewrite in-adj-manner as adj+LY and to-adj-extent as adj+LY .

## II. The Dual Structural Origin

As claimed above, Disjunctive Development of the Adverbial category permitted us, through the transformation of V.P. Promotion to posit two separate sources for Manner Adverbials, one of which was the Adjective in a higher copular sentence.

It  
a) Permits us to account for selectional restrictions holding between certain Manner Adverbials and the Subject of the Sentence.

(13)\* The stone fell protestingly on the sofa.

b) It accounts for the fact that although Manner Adverbials can occur as the modifiers of Adjectives

(14) John is elegant in a nautical way

the adjectives in these Manner Adverbials are never subject selected,

(15)\* John is elegant in an angry manner  
and hence, accounts for the absence of the With+N.P. form  
in these expressions.

(16)\*John is elegant with nauticalness.

c) We can explain the layering of Adverbials of Manner.  
That is, if a Sentence has more than one Manner Adverbial  
which is un-conjoined by a conjunction (or equivalent) the  
subject-selected is exterior to the Natural Manner Adverbial,  
but never vice-versa.

(17) John spoke slowly angrily

(18)\*John spoke angrily slowly.

d) It accounts for the fact that we can have more than  
one Manner Adverbial (unconjoined) per Sentence.

e) It explains the difference in truth conditions between  
the Adj+LY and the Prep. Phrase, Subject-Selected Manner  
Adverbials.

(19) John played in an angry manner but he wasn't  
really angry

(20)\*\*John played angrily but he wasn't really angry.

### III. The 'Direct' Adjective

By allowing the category Adjective to be a Direct  
Expansion of the V.P. we can account for

a) "Like Phrases" occurring both as Predicate Adjectives  
and as Manner and Degree, and Sentence Adverbials.

b) Certain idiomatic Adjectival adverbials

e.g. (21) John slept deeply

c) The fact that Result and Final Clauses are the complements of Adjectives and appear to occur in the structural positions associated with the traditionally defined Degree, Manner and Sentence Adverbials (see appendix 11)

d) - LY attachment as a Unitary process

e) the Manner interrogative word how behaving like an Adjective and not a preposition Phrase.

The fact that the 'Revised Theory' explains such a variety of facts relating to de-adjectival adverbials, most of which cannot be accounted for by 'Current Theory', provides the strongest justification of this analysis.

#### Significance for the 'Model'.

Up to this point the assumption has been tacitly made that all the proposed revisions of the revised theory are formulable in terms of the Aspects Model. In fact I do not believe this to be the case, but rather that the facts to be handled by a grammar purporting to describe de-adjectival adverbials are critical in that the exigencies of the description reflect directly on the structure of the Model.

The significance of -LY attachment

It will be recalled that the main conclusion reached about the process of "-LY attachment" was that, in English all adjectives appear to be subject to this process except those which qualified nouns at the stage of derived structure at which -LY attachment occurred. Thus, adjectives which obviously started out their derivation in D.S. as qualifiers in a nominal expressions could find their structural relationship to the N.P. head so distorted that they became subject to "-LY Attachment". This was typically the case of the subject selected Adv. Thus, though the following pairs have the same D.S. and in both cases the adjective is a qualifier of the noun, only in the second does '-LY Attachment' occur.

- (22) For John to pay his debt was for John to  
be honest.

Honestly, John paid his debt

- (23) John was clever at playing tennis  
John played tennis cleverly.

I have suggested that a notion which is essential for the '-LY Attachment' process is that of "qualifying". Now, I think it is impossible for this notion to be made explicit in a Base of the type described in 'Aspects', since, though it could distinguish between the relationship in which the adjective finds itself in the following two sentences,

(24) John was angry

(25) John played angrily

it would be incapable of formally distinguishing between the adjectives of (26) and (27) which undergo '-LY Attachment' and those that don't by any uniform criterion

(26) John was extremely angry

(27) John played extremely angrily.

In other words, what is required in (26) are two related notions.

i. That angry is the qualifier of John.

ii. That extremely is the qualifier of angry.

and that the relationship which relates angry and John and extremely to angry should be describable in a unitary fashion.

There is a further theoretical problem connected with the phenomenon of the qualified adjective. The problem centres on the choice of rules for deriving the adjectival phrase which contains an attributive adjective such as extremely happy.

Firstly, it seems to me indisputable that they form a constituent, that is to say that there is a node that dominates them both and nothing else, and it is reasonable to assume that it is the same node in (28) and (29) and (30).

(28) John is extremely happy

(29) John plays extremely happily

(30) John is an extremely happy man.

For the moment it matters little how we label

this node. I shall here call it 'M'. The structure therefore of the adjectival (adverbial) phrases is therefore that of Fig. (1).

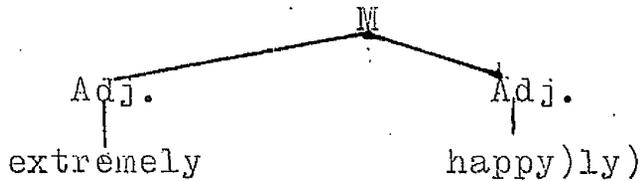


Fig. (1)

Now it is known that extremely in all cases is an optional element. We must therefore assume that the rule of the Base which introduces these adjectives is of the approximate form

(31) M (adj) adj

and, observe, this argument will hold even in the case of the Doctrine of the Unique Source being correct, i.e. for (adj) substitute (prep. phrase)

Now, if (31) is the correct rule then let us note what happens in case the derivation is such that the optional attributive adjective (or propositional Phrase) is not chosen. The structure is that of Fig. (2)

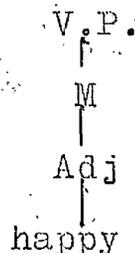


Fig. (2)

The objection to be made to this analysis is that the

intervening node M, now has no function whatsoever. It is generated by the Base as a superfluous node. It seems to me that there is something inherently wrong with some part of the Grammatical Model, that in order to show that extremely happy is a constituent/<sup>it</sup>needs the intervening node M, and in the case that Happy alone is generated cannot dispense with the node M.

This problem is inherently linked with optional expansion. In other words if at any stage in the Base rules there is say 'optionality' in the realisation of a category then it involves positing an intervening node which under certain expansions of the base has no justification.

I am claiming that the facts of de-adjectival adverbials indicate two conditions that the grammatical model should meet.

- a) It must have a uniform way of making formal the notion "a qualifies b"
- b) That the exigencies of optional expansion should not result in a superfluous node.

I am not sure how these conditions might best be formalised and incorporated into a grammatical Model. However, since the validity of my conclusions in a sense depends on their being compatible with an acceptable model of Language, I should like to show that the conditions a) and b) above are implicit in certain recent attempts to improve upon the "Aspects" Model.

In this regard I am referring in particular to suggestions by Lyons (1968), J. Robinson (1969) and Chomsky (1969). In the case of the latter, this work is closely related to the "Lexical Hypothesis" and is contained in his yet unpublished paper "Remarks on Nominalisation".

### CHOMSKY'S LEXICAL HYPOTHESIS

As I have already had occasion to explain in Ch. 1, an important part of the data on which this hypothesis is based is that presented by the derived nominal such as proof in (33) and its relationship to prove in (32)

(32) John proved the theorem

(33) John's proof of the theorem

The previously held assumptions about there being a transformational relationship between (32) and (33), in which (32) serves as the input to the transformation and (33) as its output is questioned by Chomsky. He reasons that the haphazard relationship between (32) and (33) type sentences is best accounted for by a non-transformational theory in which the relationship between the verb e.g. prove and the derived nominal e.g. proof is stated in the lexicon and in which their relationship is stated in terms of their having the same selectional and strict-subcategorisational restrictions vis a vis the subject and nominal complements.

In this paper Chomsky is at pains to demonstrate

that in English it is reasonable to assume that there is a very extensive range of complements associated with the three major categories, Noun, Verb and Adjective. Particularly he is concerned with the complements of the Noun, and he produces several sentences, which I think he rightly claims cannot be derived from relative sentences.

(34) The weather in England  
is not satisfactorily derived from

(35) The weather which is in England.

But, the solution of Chomsky is to permit these complements to be generated directly by the Base (instead of deriving them transformationally from embedded sentences).

Chomsky makes two statements concerning the revisions of the Model necessary to accommodate these properties

- a) "Let us refer to the phrases associated with N, A, V in the Base as the specifier of these elements."
- b) "The phrases immediately dominating N, A and V will be designated  $\bar{N}$ , A,  $\bar{V}$  respectively"

This conception of the Base will define the following structures

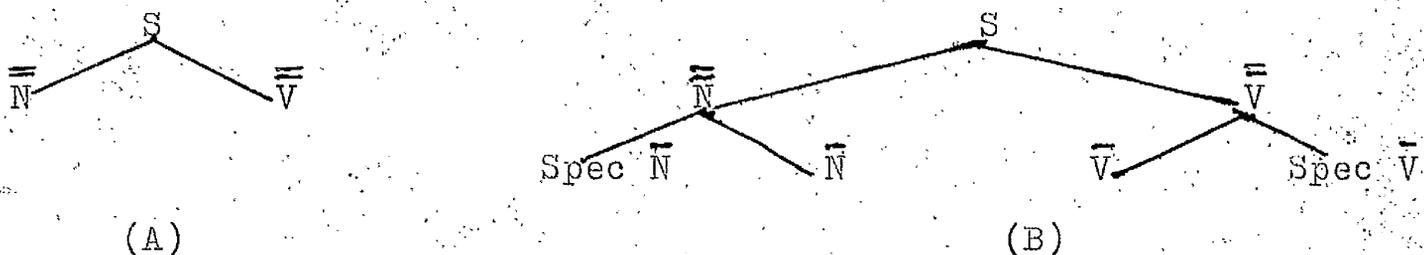


Fig. (3)

I interpret Chomsky to claim that Lexical Insertion can occur now under all of these Nodes.

Chomsky's remarks about the Base are extremely "general" but it is apparent that the following two properties are implicit in this new conception.

Firstly the notion of "qualifying" is considered to be of syntactic relevance and is stateable in the majority of cases as the relationship holding between the Major category N, V, A, and its "Specifier" (where instead of this latter term we may write "Qualifier"). Thus the problem posed in stating that in the case of the grammar generating extremely happy as a constituent extreme must always undergo "-LY Attachment", but not necessarily in the case of happy, since it is now possible to distinguish between these two adjectives in their relationship to any other category. In other words, it is now possible to state naturally that extreme qualifies happy and that happy qualifies the N.P. or Verb as the case may be.

Secondly, the formal properties of the Model designed to accommodate the Lexical Hypothesis are such that optional development of any category in the Base does not necessitate the assumption of there being any intervening category, whereas, formerly it was necessary to posit a category M dominating extreme and happy in order to account for the fact that they were a constituent, a category which it has been claimed was redundant in case the "qualifier" was not present. In keeping with the new formulation, the structural contrast between happy and extremely happy are

stateable in terms of configurations of Fig. (4)

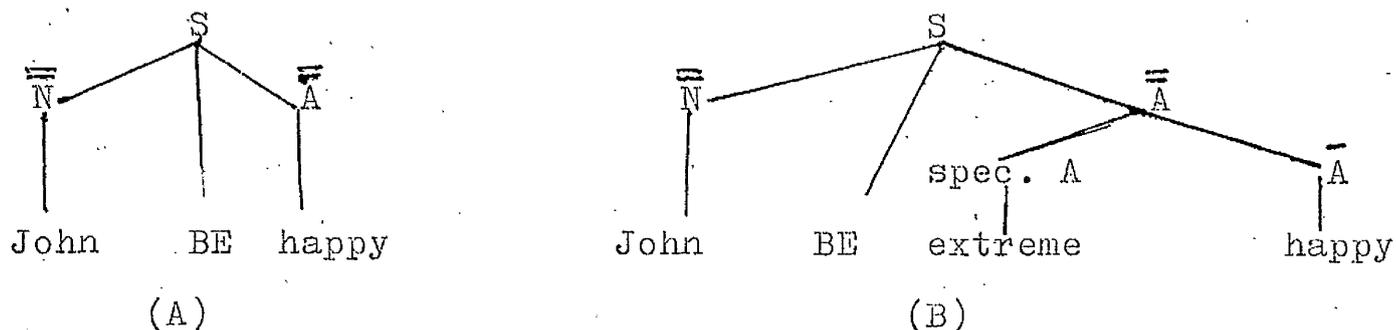


Fig. (4)

Interestingly enough, Lyons has criticised the Phrase Structure Base of the Transformational Grammar for what appear to be very similar reasons and has advocated certain aspects of a "CATEGORICAL GRAMMAR" as the Base composed. The advantage of this latter being

"...That the categorial grammar, unlike the re-write grammar, regards one constituent in each construction as dependent upon the other" (pg. 231)

"...The re-write system represents the notion of dependency only partially and indirectly."<sup>1</sup>

In other words, the P.S. Component of the Aspects Model has no means of formalising the notion "endocentric construction" and its converse "exocentric construction"

Jane Robinson almost paraphrases Lyons when she says

"The concept of governor or head is not formalised in current transformational grammars with phrase-structure categorial components, but there are indications that it is needed in order to account for certain observable facts about how transformations operate"<sup>2</sup>

My main reason for considering the implications of the Revised Theory for the grammatical Model has been one of self-defence. In other words, the inadequacy of my account of "-LY Attachment" is not necessarily due to the inadequacy of my analysis since it hinges on the notion of "qualifying", which cannot be adequately stated in terms of the present phrase structure model but rather that this inadequacy is inherent in the Model.

That this does constitute an inadequacy is now fairly widely recognised. I have quoted as evidence of this criticisms made by Lyons and even the revisions proposed by Chomsky himself. Both of these Linguists, implicitly if not always explicitly, are claiming that a notion such as 'dependency' (which is equivalent to claiming that in a structure some elements are head and others qualifying) is necessary in a grammar of natural language.

It is my claim therefore that in a grammatical model capable of making formal the notion of dependency, the conditions for -LY Attachment can be adequately stated.

On the other hand, it seems to me that the facts relating to de-adjectival adverbials provide empirical justification for incorporating these revisions into the grammatical Model.

Significance for Related Theories

In Chapter I it was shown that the "Doctrine of the Unique Source" was in a relationship of interdependence with other current syntactic theories, namely, those designed to account for a) 'WH-' interrogatives b) Simple Adverbials, and c) Functional definition. By claiming the "Doctrine of the Unique Source" to be erroneous, an important support has been removed from these theories. That is to say that theories of Interrogatives and Simple Adverbials must now be designed in such a way as to account not only for cases in which the Adverbial has an underlying nominal but also for those in which the underlying form is an Adjective.

The definition of syntactic function will have to be re-defined in order to account for the cases in which a functionally significant category is realised optionally by either of two categories. It would appear however that the revisions to the model being currently proposed by Chomsky (1969), Robinson (1968) and Lyons (1969), add a new functional dimension that should facilitate this. I refer to the notion 'head-qualifier' whose incorporation they suggest. Thus, whereas, in Chomsky's theory the definition of "Subject" and "object" seemed both simple and intuitively correct, the extension of configurational definition to other functional notions seems fraught with difficulties. Now, however, it seems possible to divide functional notions into

two types a) Major Functions, to be defined as those operative between major categories e.g. (N.P.S.)<sub>A</sub> (V.V.P.); these are essentially those for which the Chomskyan theory of definition seemed to work adequately (at least at a certain level), and b) Minor Functions, to be defined as the relationships holding between a Head of a constituent and its "specifier". Thus the notions "Manner" and "Degree" Adverbial could incorporate some notion such as that the former is a qualitative specifier of a Verb or Adjective, and the latter a quantitative specifier of either of these categories.

Naturally, syntactic theory would also have to face the problem of Derived functional notions in order to define "Subject-Selected Manner Adverbials" and of course, in particular the notion "Sentence Adverbial".

#### An observation

What has particularly struck me in the course of this investigation is the frequency of cases in which the grammar of English faces an option between Nominal and Adjectival form. I noted for example that the categories dominated by Predicate might be realised by either an Adverb in the case of (36)i or N.P. in (36)ii.

(36)i. Mary is so beautiful

ii. Mary is of such beauty

This, I have claimed, is transformationally related

to the choice in Subject Selected Adverbials

(37) i. John spoke intelligently

ii. John spoke with intelligence.

This choice is also inherent in the Natural Manner Adverbials

(38) i. John spoke adequately

ii. John spoke in an adequate manner

and in Degree Adverbials

(39) i. John was extremely happy

ii. John was happy to an extreme degree.

This choice was apparent in other types of Adverbials treated only peripherally in this study.

For Frequentative Adverbials there is an alternation between frequently and a lot or many times.

For Adverbs of Habitual Aspect one may choose either regularly or with regularity.

As there appears to be no overriding logical reason why this should be the case this fact seems to be of significance for Syntactic Theory.

#### Other Cases of De-Adjectival Adverbials

I have only so far attempted to account for Adverbials introduced into the grammar via the category Adj. Phrase. There are other examples of Adverbs obviously related to Adjectives for which the theories developed and discussed here appear unable to account.

Of these Adverbials some appear to have the following functions:-

TEMPORAL ADVERB

- (40) i. Mary is presently studying in France.  
 ii. The block is temporarily out of order.  
 iii. The President was momentarily delayed.

DIRECTIONAL

- (41) i. John ran diagonally across the field.  
 ii. They turned westwardly into the wind.

In all cases it appears that the Adjectival Adverbial realises a function which is optionally also carried out by a Nominal Expression.

Conclusion

The main purpose of this study has been to attempt to define the processes capable of enumerating all the grammatical strings of those adverbials which are composed of an adjective. This has involved considering prevalent theoretical attitudes and the refutation of the widely-held "Doctrine of the Unique Source" and the affirmation of its converse "The principle of Disjunctive Development". I have shown that an analysis that incorporates a disjunctive development of a category accounts better for the syntactic properties of de-adjectival adverbials.

I have claimed that other syntactic theories which are implicitly based on the "Doctrine of the Unique Source" will require re-definition. Finally, I have shown that a

certain area of the syntax of the de-adjectival adverbial has significance for the model, since it provides empirical evidence of the necessity for incorporating the notions "head-modifier" into the formal properties of the model.

FOOTNOTES TO CHAPTER 9

- 1) See Lyons, "Introduction to Theoretical Linguistics" (1968) pg. 231.
- 2) See J. Robinson, "Dependency Structures and Transformational Rules" 1968 pg. 1.

APPENDIX I

One of the claims of the Revised Theory for Manner Adverbials that I am proposing, is that they are to be sub-categorised along two distinct axes, corresponding to differences of structural source and of category.

The first of these axes is that which divides Subject-Selected from Natural Adverbials. The second is defined by the choice between Adjectival or Nominal Form. The four sub-categories of Fig. (1) are thereby defined.

	SUBJECT-SELECTED	NATURAL
ADJECTIVE	angrily	(sleep) deeply
NOMINAL	with anger	in a distressing manner

Fig. (1)

Observe that in English the distinction between subject-selected and Natural adjectival adverbial is covert. However, if my analysis is correct there may be some language that makes an overt distinction between these two types. If this should be the case, then it might be taken as evidence in support of my revised analysis. In Spanish, I believe I have found such a case, in which a syntactic, and even morphological, distinction is made between the Subject-Selected and the Natural Manner Adverbial.

I am referring to the set of adverbials in

Spanish which have the form of the Masculine singular of the adjective. Let us refer to these as the "MASCULINE ADVERBIALS"<sup>1</sup>.

(1) Maria habla muy bajo  
 alto  
 fuerte  
 claro  
 ronco  
 lento  
 despacio

Though, these adverbials, have not to my knowledge been the subject of any transformational analysis, their behaviour in traditional grammars has generally been held to be idiosyncratic, that is to say no rule has been given to predict their occurrence nor has any semanto-syntactic reason been given for them. It has generally been ascribed to one of the haphazard processes involved in the evolution of language. It is my claim that these adjectives are all members of the set of Natural-adjective-adverbials.<sup>2</sup>

The following criterial tests strongly imply that they can only be Natural Adverbials.

1) Only in a few cases is it possible to give a paraphrase of the form

Subject - BE - Adj - V.P.  
 + anim

(2)\* Juan era alto para hablar  
 fuerte  
 bajo

and even though in certain cases such a paraphrase is

possible this can be taken as a reflection of the fact that the adjective is selectionally predicable both of verbs and animate subjects.

(3) Juan es muy lento en el hablar

One implication of this is that potentially there is distinction between

(4) Juan habla lentamente

(5) Juan habla lento

but though I know of no syntactic or semantic frame that will make this contrast obvious, this should not be considered as a refutation of the analysis.

Secondly, not one of these adverbs is selectionally confined or restricted to an animate or inanimate subject. For example, one might suspect that ronco (hoarse-in-sound) might be so selected but in all cases, it can be shown that selectional restrictions hold only between verb and adverb.

(6) El piano sonaba

Juan hablaba

muy ronco

(7)\*Juan jugaba muy ronco

All the evidence I have found tends to support the theory that this set, The Masculine Adverbials, are Natural Adverbials. The fact that in many cases they have -mente paraphrases suggests that -mente is optional.

Nevertheless, this analysis is very much open to refutation. For example, one would have only to find a member of this set which is indisputably subject-selected (and not ambivalent, like lento) as are furioso, and inteligente and which could occur as a Masculine Adverbial and this would constitute a counter-example to my analysis. The fact that there is no example that comes easily to mind I shall consider as the strongest argument in favour of this analysis. In other words there is no grammatical sentence of the form

(8) \* Maria cantó furioso

The fact that this set of adverbials may optionally fail to undergo -mente attachment has never before been explained. My claim is that my analysis offers a framework in which this could be explained, and since at some stage of some process, the information must be available that this set is to be distinguished from other adverbials. I do not know how this information is signalled, since at the stage of -LY (or -mente) attachment the derived structure of the Natural and Subject-Selected adverbial would appear to me to be identical. Presumably this restriction functions at the feature level. In other words -mente attachment is optionally blocked if an adjective is characterised by the feature -animate.

APPENDIX II

One of the implications of the revisions proposed to Current theory is that Degree, Manner and Sentence adverbials, in that they are all potentially realisable by adjectives, may be categorially the same.

The accuracy of the above premise may in consequence be open to verification through the empirical testing of its implication.

Now, it is generally accepted that the Degree (or Attributive) Adverbial has certain clausal realisations such as Comparative, Result and Final clauses.<sup>3</sup>

Thus it is, that it is feasible to analyse the following sentences as having a certain underlying structure in common.

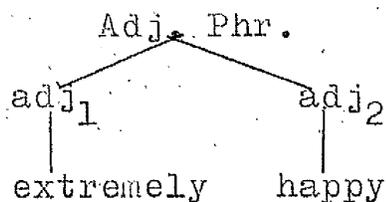
(1) John is extremely happy

(2) John is more happy than his brother

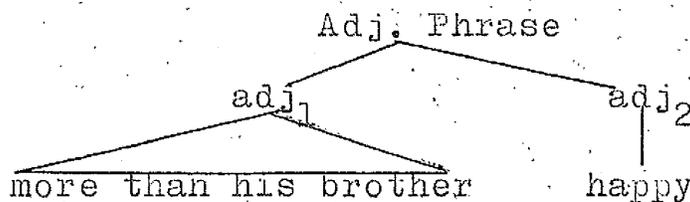
(3) John was so happy that he forgot his own name.

(4) John disguised himself so well that even his brother should not recognise him.

The structure of the above appear to be the following



(A)



(B)

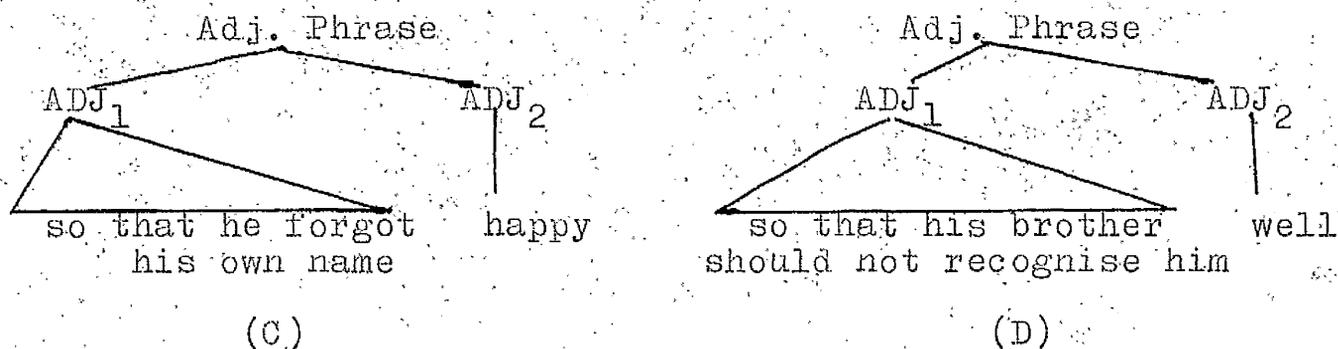


Fig. (1)

If in effect Comparative and Result clauses are realisations of the category ADJ as is claimed by the Revised analysis here being proposed then if it could be shown that these clauses could occur in other positions in structure where adjectives occur then these facts would be in keeping with our analysis and yet again, if it could be demonstrated that these clauses occur in contexts/which adjectives occur and from which, in general, prep. phrases are excluded then it seems to me that this would constitute even stronger justification of the Revised analysis. Result and Final Clauses (and of course also Comparatives, which I omit because of their complexity) as the realisations of Adjectival category might feasibly occur in a) any of the positions in structure associated with "Adj. Phrase" and b) either as an  $adj_1$  or an  $Adj_2$ , i.e. either as the head or the attributive adjective of the "Adj. Phrase."

The category "Adj. Phrase" is according to my analysis introduced by the Base Rules into two distinct environments.

- a) as a daughter of V.P.  
 b) as a predicate of a copular sentence.

As a daughter of V.P.:

There should be two possibilities associated with this context.

i) That where the Clause is an  $Adj_1$  complement and that where it is an  $Adj_2$ . These possibilities are, I claim, realised by (5) and (6) in the former case,

since the following Result and Final clauses appear to have precisely this function

(5) John played so (in such a way) that everyone applauded

(6) John played so (in such a way) that everyone would applaud

implying the following structure

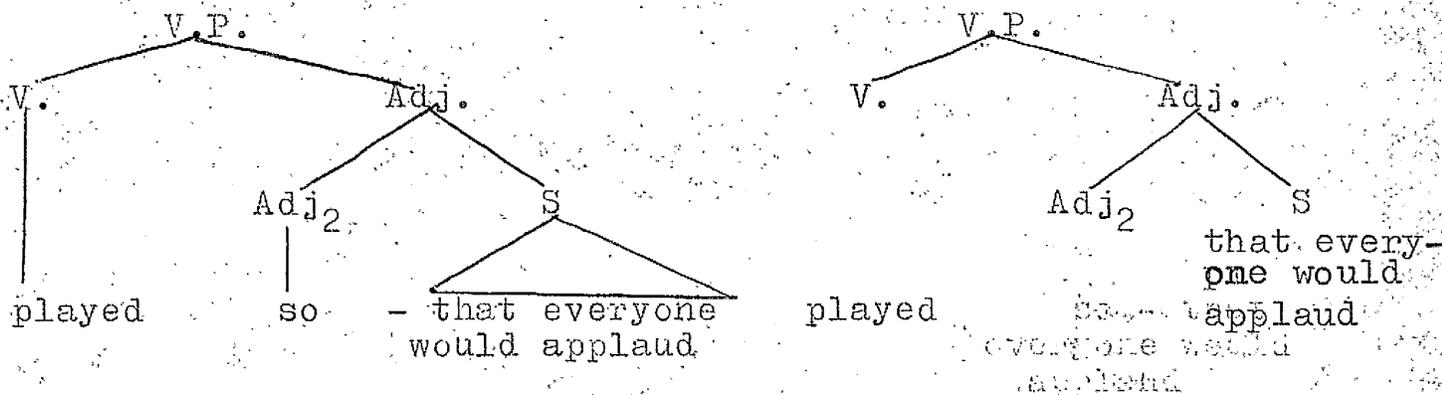


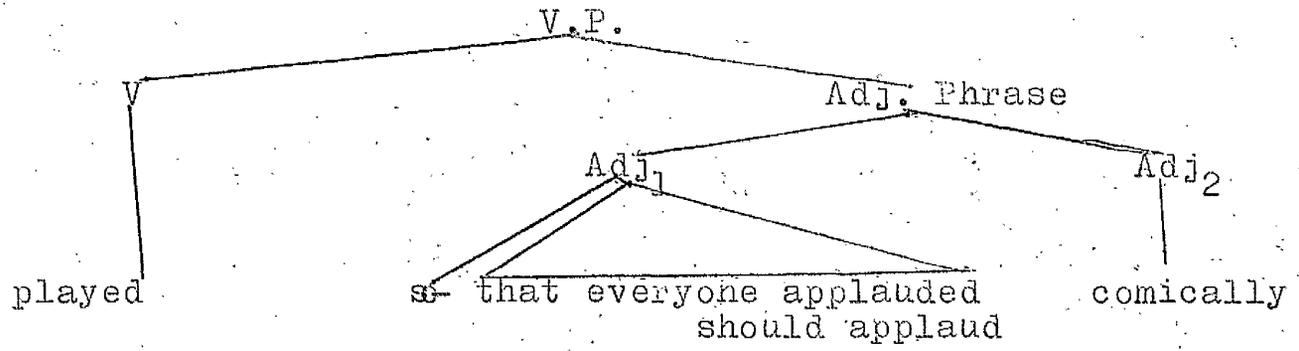
Fig. (2)

and by (7) and (8) in the latter

(7) John played so comically that everyone applauded

(8) John played so comically that everyone would applaud.

The structure underlying the latter is represented in Fig. ( 3 )



(Fig. 3)

As the Predicate of a Copular Sentence

Both possibilities do not appear to be realised for all examples. The clauses are realisations of Adj<sub>1</sub>

- (9) i. John was so rude that everyone should hate him
- ii. John was so rude that everyone hated him

The adj<sub>2</sub> possibility seems anomalous for this type of copular sentence

- (10) i. John was so that everyone should hate him
- ii. John was so that everyone hated him

Observe however, that the following can only be accounted for if we assume the possibility of the structure underlying (10)

- (11) So that everyone should applaud John played

This has not the same meaning as (6), and I assume it must arise from a structure similar to that underlying a

## Sentential Predicate Sentence Adverbial.

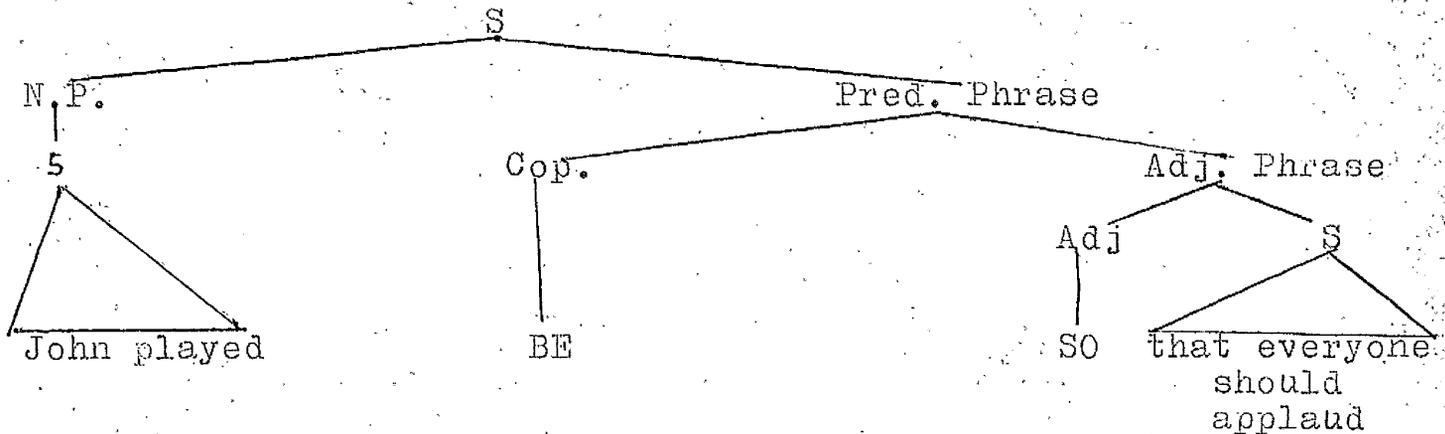


Fig. (4)

I think it may even be necessary to consider that Result and Final clauses, though expandable from the Degree and Manner modes, which both have optional realisations as Prep. Phrases, appear only when this option is realised as an adjective.

Thus, although there is a form

(10) John played so that they should applaud  
spoke

there is no acceptable form

(17)\*John spoke in a way that they should applaud

but only (18) John spoke in such a way that they should applaud  
which I interpret as meaning that the prepositional form of the Manner adverbial (in-S-Way) cannot have an Final clause as its complement unless the N.P. contains an adjective, which, when this is a pro-form, i.e. so, is in attributive position converted to such.

In other words the true analysis of Fig. (4)

is not

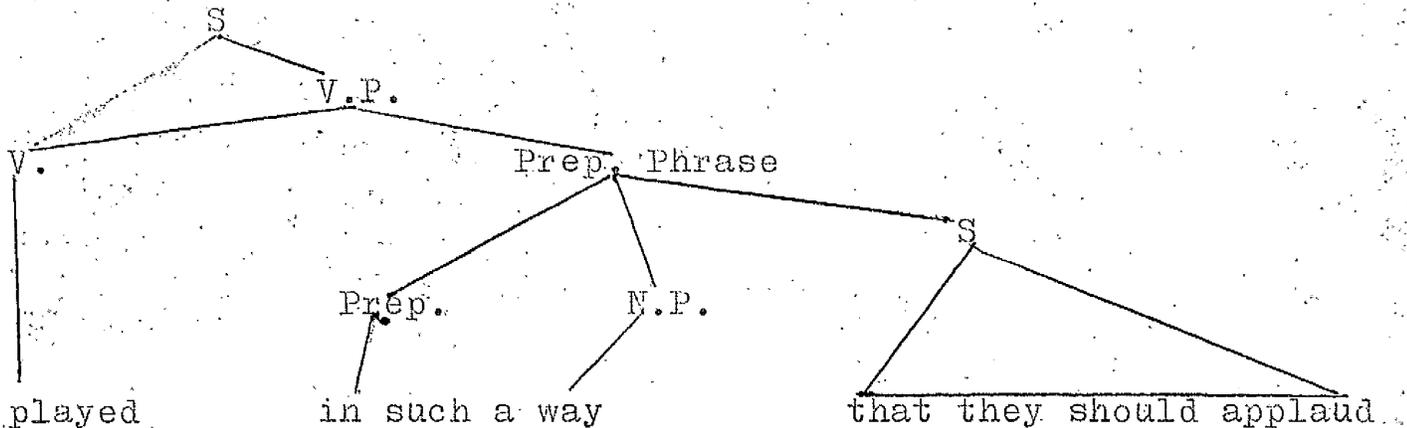


Fig. (4)

but rather,

(19) John played in such-that they should applaud-way

It seems reasonable to make the claim that the syntax of Final and Result Clauses arise from the structure (20)

(20) Adj + S

since it has been shown that prepositional phrases without adjectives do not have Final and Result Clause complements. I also conclude that these Adverbial clauses appear in three places in structure, viz. those places traditionally associated with the Degree, Manner and Sentence Adverbials. This is of course in keeping with the distribution of the category Adjective.

I claim therefore that the above facts are perfectly compatible with the revisions I am proposing to the theory of de-adjectival adverbials, and run counter to the postulation of a "Unique Source" Prepositional Phrase.

FOOTNOTES TO APPENDICES I AND II

1) Bello y Cuervo (1960) simply remark that

"otros adverbios hay que son originalmente  
adjetivos"

and dismiss the subject at that.

2) We believe that similar facts can be found in English.

I refer to those Manner Adverbials that occur without -ly.

John played hard and fast.

3) This analysis of these modifying phrases is in principle  
the same as that given by J. Bowers (1970)

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