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**LINGUISTIC THEORY AND THE
FUNCTION OF WORD ORDER IN DUTCH**
A Study on Interpretive Aspects of the Order
of Adverbials and Noun Phrases

A. Verhagen

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LINGUISTIC THEORY AND THE FUNCTION OF WORD ORDER
IN DUTCH

VRIJE UNIVERSITEIT TE AMSTERDAM

LINGUISTIC THEORY AND THE
FUNCTION OF WORD ORDER IN DUTCH
A Study on Interpretive Aspects of the Order
of Adverbials and Noun Phrases

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doctor in de letteren
aan de Vrije Universiteit te Amsterdam,
op gezag van de rector magnificus dr. P.J.D. Drenth,
hoogleraar in de faculteit der sociale wetenschappen,
in het openbaar te verdedigen
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De Boelelaan 1105

door

ARIE VERHAGEN
geboren te Vlaardingen

Promotoren: prof. dr. D.M. Bakker †
prof. dr. Th.A.J.M. Janssen
Referent: dr. E.C. García



for Anneke, Ewold and Lennart

Samenvatting

Taaltheorie en de functie van volgorde in het Nederlands

Een onderzoek van interpretatieve aspecten van de volgorde van
bijwoordelijke bepalingen en naamwoordgroepen

Het beschrijvingsterrein van deze studie betreft het verband tussen enerzijds de plaats in de zin van bepaalde zinsdelen, en anderzijds de interpretatie van de betreffende zin. De primaire aandacht gaat uit naar het verband tussen de plaats van bijwoordelijke bepalingen en de interpretatie van de zin. In de inleiding van hoofdstuk 1 wordt vastgesteld dat de beschrijving van de 'syntaxis' van bijwoordelijke bepalingen traditioneel niet centraal staat in taalkundige theorievorming, en als oorzaak daarvan wordt gezien dat het eigenlijk onduidelijk is of er wel systematische verbanden tussen de distributie van bijwoordelijke bepalingen en als relevant beschouwde interpretatieve aspecten bestaan, terwijl de taalkunde juist specifiek belang stelt in systematische relaties van 'vorm' en 'inhoud'. Zo is er in het Nederlands niet of nauwelijks sprake van enig verband tussen de interpretatie van een bepaling als een zgn. zinsbepaling of als een zgn. predikaatsbepaling, en de plaats van de bepaling in de zin. Als dit representatief is betekent het dat de syntaxis van bijwoordelijke bepalingen niet of nauwelijks relevant is voor specifiek taalkundige probleemstellingen.

Eén van de doelstellingen van deze studie is echter te laten zien dat die relevantie er wel degelijk is, en dat die zelfs vrij groot is. Maar met het oog op de diagnose van het 'probleem' van de syntaxis van bijwoordelijke bepalingen wordt eerst ingegaan op de algemene vraag op welke wijze verbanden tussen aspecten van 'vorm' en aspecten van 'interpretatie' in beginsel geanalyseerd (kunnen) worden. Op grond van overwegingen van algemene aard wordt vastgesteld dat een interpretatief aspect beschouwd kan worden als onmiddellijk opgeroepen door een bepaald vorm-verschijnsel (in welk geval men van de 'betekenis' van die 'vorm' spreekt), of als een indirect effect van het (gecombineerd) optreden van bepaalde eenheden van vorm en betekenis, of juist als 'bron' of 'aanleiding' voor een bepaald

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vorm-verschijnsel (dat dan zelf een 'symptoom' genoemd zou kunnen worden). Relaties tussen vorm-verschijnselen en interpretaties die als vorm-betekenis relaties gezien worden, kunnen verder nog op verschillende manieren in een taalbeschrijving gepresenteerd worden, nl. als uniek, als geval van homonymie, van synonymie, of van beide, waarbij duidelijk is dat hoe meer men homonymie en synonymie toestaat in de beschrijving, hoe minder systematisch het betreffende verband tussen 'vorm' en 'betekenis' in feite voorgesteld wordt. Deze overwegingen maken duidelijk dat de systematisch relevante relaties tussen 'vormen' en 'inhouden' waar de taalkunde belang in stelt, geen eenvoudigweg te observeren verschijnselen betreffen, maar slechts als produkten van analyse beschikbaar komen. Meer specifiek kan het 'probleem' van de syntaxis van bijwoordelijke bepalingen aangeduid worden als de situatie waarin niet zonder een grote mate van 'overlap' (zowel synonymie als homonymie) een verband gelegd lijkt te kunnen worden tussen de positie van een bepaling en bepaalde relevant geachte aspecten van interpretatie, waarmee het karakter van dat verband dus weinig systematisch en daarom taalkundig niet bijster interessant zou zijn. Er is in de hedendaagse taalkunde echter een antwoord op deze diagnose denkbaar dat er op neer komt dat de 'waargenomen' posities van bepalingen niet geacht worden elk voor zich rechtsreeks in verband te staan met een bepaald aspect van interpretatie, maar beschouwd worden als 'oppervlakkige' manifestaties van 'onderliggende' vormen waarin wel een systematisch verband tussen positie en interpretatie bestaat.

Hoofdstuk 2 behelst een kritische standpuntbepaling ten aanzien van deze gedachtengang, in algemene zin en in termen van de geschiedenis van enkele centrale concepten in de theoretische stroming die dit idee in de moderne taalkunde ingevoerd heeft: de generatieve grammatika, waarmee de naam van N. Chomsky onverbrekelijk verbonden is. Er wordt betoogd dat in een situatie van een waargenomen 'chaotisch' geheel van relaties tussen vormelijke en interpretatieve verschijnselen, er twee principieel tegen-gestelde strategieën denkbaar zijn om daar systematiek in aan te brengen: veronderstellen dat de waargenomen relaties (geheel of grotendeels) manifestaties zijn van relaties tussen vormen en betekenissen - die dan wel een zeer complex geheel moeten vormen gezien het chaotische karakter van de waargenomen verbindingen - of veronderstellen dat lang niet alle geobserveerde verbindingen als vorm-betekenis relaties gezien moeten worden, waardoor die niet opgevat hoeven te worden als een zeer complex

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geheel vormend. Het eerste is het standpunt van de generatieve grammatika, het tweede wordt o.a. in deze studie aangehangen. In hoofdstuk 2 worden enkele achtergronden uiteengezet van beide benaderingen, en wordt betoogd dat het uitgangspunt van een complex geheel van vorm-betekenis relaties tot een tegenstrijdig onderzoekprogramma leidt in de generatieve grammatika, omdat de gedachte van een dergelijke complexiteit in strijd komt met het specifiek taalkundige streven systematiek aan te brengen in de aangenomen vorm-betekenis relaties. De samenhang van dit uitgangspunt met andere grondgedachten van de generatieve grammatika wordt in enig detail uitgewerkt en er wordt een poging ondernomen de beweerde tegenstrijdigheid in het generatieve onderzoekprogramma aannemelijk te maken door een analyse van de geschiedenis van enkele centrale theoretische concepten van de TGG.

In hoofdstuk 3 wordt betoogd dat generatieve voorstellen voor de beschrijving van de syntaxis van bijwoordelijke bepalingen, hoewel ze geen belangrijke rol spelen in centrale theoretische discussies, desalniettemin de trekken vertonen die in hoofdstuk 2 als karakteristiek voor de TGG zijn aangewezen en dat enkele wezenlijke problemen waar die voorstellen mee geconfronteerd worden geduid kunnen worden als samenhangend met die karakteristieke trekken.

Hoofdstuk 4 vormt het eerste deel van de eigen analyse van het verband tussen de positie van bijwoordelijke bepalingen en de interpretatie van zinnen. Er wordt een generalisatie geformuleerd die inhoudt dat zogeheten zinsbepalingen een modifikatie inhouden van de wijze waarop het 'nieuws' van de zin geacht wordt in relatie te staan met het 'discourse' waarin de zin optreedt: dat is dan geen probleemloze relatie, maar één die gekarakteriseerd wordt als aan te duiden met bijvoorbeeld de uitdrukking "waarschijnlijk", of "helaas". Zinsbepalingen kunnen dan dus meer specifiek begrepen worden als bepalingen bij de zgn. "comment" van een zin. Een tweede generalisatie is dat de comment van een zin zich in het algemeen rechts van een dergelijke comment-bepaling - indien aanwezig - bevindt (4.1.1). Het grootste deel van hoofdstuk 4 is er dan aan gewijd te laten zien dat op basis van deze generalisaties, in combinatie met een bepaalde semantische analyse van aksentuatie in het Nederlands (4.1.2), al veel van de verbanden tussen volgorde en interpretatie te begrijpen valt, voor zover het het zgn. middenstuk van de zin betreft. Dit wordt voor een aantal aspecten uitgewerkt in 4.1.3. Vrij uitvoerig wordt stilgestaan bij de

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betekenis van het onbepaald lidwoord, in verband met het verschijnsel dat de interpretatie van zgn. onbepaalde NPs nogal drastisch lijkt te verschillen afhankelijk van de plaats t.o.v. een comment-bepaling. Betoogd wordt dat de geformuleerde generalisaties, samen met de voorgestelde betekenis van (o.a.) het onbepaald lidwoord, in staat zijn de waargenomen interpretatieve verschillen begrijpelijk te maken, dus zonder dat 'ambiguiteit' in de functie van (de positie van) een comment-bepaling of in de betekenis van het onbepaald lidwoord aangenomen hoeft te worden; er zijn dan ook aanwijzingen te geven dat geheel vergelijkbare verschijnselen zich in feite ook voor kunnen doen in het geval van niet onbepaalde NP's (4.2). In 4.3 worden enkele voorlopige opmerkingen gemaakt over de onderlinge volgorde van subjecten en comment-bepalingen; deze blijkt niet alleen samen te hangen met eigenschappen van de betreffende subject-NP's zelf (bv. hun al of niet onbepaald zijn), maar ook met de vraag of er verder in de zin al dan niet een object voorkomt. Als dat het geval is, is de positie van een comment-bepaling links van het subject 'moeilijker' dan bij afwezigheid van een object (intransitiviteit van de betreffende zin). Deze observatie wordt bovendien ondersteund door bepaalde kwantitatieve gegevens. Dit is niet geheel onbegrijpelijk in het licht van in de literatuur aanwezige suggesties dat de aanwezigheid van een object het 'moeilijker' maakt voor het subject om voorgesteld te worden als 'niet reeds onder de aandacht' - wat het geval is wanneer het subject tot de comment, d.w.z. het 'nieuws-gedeelte', van de zin behoort. Het verband tussen comment en transitiviteit komt in hoofdstuk 6 opnieuw aan de orde. De laatste paragraaf van hoofdstuk 4 (4.4) laat zien dat niet alleen bepaalde min of meer traditionele generalisaties omtrent de onderlinge volgorde van zgn. zinsbepalingen en zgn. predikaats-bepalingen te begrijpen zijn op basis van de in 4.1.1. geformuleerde generalisaties, maar juist ook een aantal 'uitzonderingen' daarop.

Op een aantal punten in hoofdstuk 4 wordt vastgesteld dat de geformuleerde generalisaties niet in alle gevallen een adequate voorstelling van zaken geven. Met name gaan ze niet echt op voor gevallen waarin een comment-bepaling helemaal aan het begin of juist helemaal aan het eind van de zin staat, terwijl er verder ook verschijnselen zijn die er rechtstreeks mee in strijd lijken. In het begin van hoofdstuk 5 worden daar nog verschijnselen aan toegevoegd die juist wel van hetzelfde type zijn, maar zonder dat ze onder de gegeven formuleringen gevangen kunnen worden. Hieraan wordt de

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konklusie verbonden dat deze generalisaties geen formuleringen kunnen zijn van strikt systematische vorm-betekenis relaties. Bovendien kan betoogd worden dat een dergelijke voorstelling van zaken ook op grond van algemene, conceptuele overwegingen weinig aantrekkelijk zou zijn. Daarom wordt in hoofdstuk 5 een poging ondernomen de generalisaties en de 'uitzonderingen' erop te beschrijven als voortvloeiend uit meer algemene en meer fundamentele principes en betekenissen. Vastgesteld wordt dat ook de plaats in de zin van andere 'typen' bepalingen dan de zgn. zinsbepalingen aanleiding kan geven tot interpretatieve verschillen als behandeld in hoofdstuk 4, en dat die alle geformuleerd lijken te kunnen worden met behulp van het idee dat de gedachte die door een eerder geproduceerd woord (of samenstel van woorden) wordt opgeroepen voorgesteld wordt als op de een of andere manier (in het betreffende 'discourse') waarneembaar onafhankelijk van de perceptie van gedachten die door andere, er op volgende (samenstellen van) woorden in de zin worden opgeroepen. Dit gaat ook op in de gevallen waarbij de comment (kontra de generalisaties van 4.1.1) wel degelijk aan een comment-bepaling voorafgaat, zij het dat het totaal-effekt anders is dan wanneer de comment aan het eind van de zin staat: de voorstelling van het 'nieuws' van de zin als in feite onafhankelijk van de zinsinhoud waarneembaar (doordat het 'nieuws' voorafgaat aan 'oude' informatie) staat gelijk met een zgn. contrastieve interpretatie van de zin, terwijl de voorstelling van het 'nieuws' als niet (per se) onafhankelijk van de zinsinhoud waarneembaar, neutraal is - dat is niet anders te verwachten. De abstrakte functie van volgorde betreft dus de presentatie van informatiedelen in de zin als al dan niet waarneembaar onafhankelijk van andere (en daarmee de totale) informatie in die zin. Dat hoeft niet per se te korreleren met de presentatie als 'oud' vs. 'nieuw', al is dat in feite vaak wel het geval. In hoofdstuk 5 wordt tevens betoogd dat deze voorstelling van zaken, ten dele in combinatie met een bepaalde analyse van de betekenis van het voorkomen van een werkwoord voorbij de tweede plaats in de zin, het in termen van hoofdstuk 4 'uitzonderlijke' gedrag van comment-bepalingen aan het begin en aan het einde van zinnen als 'gewoon' doet verschijnen. Wat betreft de status van de voorgestelde functie van volgorde wordt opgemerkt dat die bij voorkeur niet opgevat zou moeten worden als de betekenis van een volgorde-vorm, maar als onmiddellijk samenhangend met de aard van het lineariseren van informatie (wat het eerst gezegd wordt, wordt ipso facto waarneembaar gemaakt onafhankelijk van wat nog moet volgen), hoewel de omgekeerde stellingname op zich wel denkbaar

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zou zijn en op basis van de onderhavige studie ook niet strikt uitgesloten kan worden.

Hoofdstuk 6 behelst een toepassing van het met name in hoofdstuk 5 ontwikkelde begrippenapparaat op de volgorde van zinsdelen die traditioneel als 'onderwerp' en 'voorwerpen' aangeduid worden. Met name van het zgn. (niet-prepositionele) meewerkend voorwerp is algemeen bekend dat de positie ervan, vooral t.o.v. het onderwerp, niet echt vast is, waaraan de konklusie wordt verbonden dat het op zijn minst problematisch is om de inhoud (welke dan ook) van de aldus aangeduide grammatikale funktie op te vatten als een betekenis. Om het verband tussen positie en interpretatie op een andere manier te kunnen opvatten worden zowel de 'vormelijke' (volgorde) als de 'interpretatieve' kanten van het meewerkend voorwerp aan een nader onderzoek onderworpen. Het blijkt mogelijk een verband te leggen tussen de interpretatie van de referent van een NP als niet-volledig-beheerst objekt van een proces of toestand en de plaats van zo'n NP t.o.v. andere NP's in termen van dezelfde abstrakte funktie van volgorde die in hoofdstuk 5 werd voorgesteld. Tegelijk daarmee wordt in feite een volledige beschrijving gegeven van het verband tussen volgorde en de interpretatie van NP's, waarmee de aanname van op de een of andere wijze 'syntaktisch' gekodeerde rollen als 'onderwerp' en 'lijdend' of 'meewerkend voorwerp' onnodig en onwenselijk wordt. Het is dus mogelijk het eigenlijke verband tussen volgorde en interpretatie als tamelijk eenvoudig op te (blijven) vatten en tevens als een konstante faktor in verschillende zinnen, mits men bereid is de grammatikale status van noties als 'subjekt' en 'objekt' ter diskussie te stellen. Deze begrippen hebben kennelijk betrekking op aspecten van de interpretatie van een hele zin, die de gedachte oproept aan een situatie waarin één participant betrokken is, dan wel meer dan een, waarbij in het laatste geval altijd een zeker 'hierarchisch' verschil tussen de rollen van de participanten geïnterpreteerd wordt. Met behulp van deze inzichten wordt tenslotte opnieuw een verband geformuleerd tussen transitiviteit en de interpretatie van zinnen in termen van comment en comment-bepaling, zoals dat aan de orde was in hoofdstuk 4.

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Acknowledgements

One of the things I vividly remember of Dick Bakker is his saying to me once that he thought he ought to read more of generative grammar, "for it is really linguistics, after all". It was one of those moments that one suddenly sees that much in the world that one takes for granted might conceivably have been very different. In this case, it made me wonder what it actually is that makes us call some of our activities "linguistics". Some results of my wondering so far about this question as well as others are presented in this dissertation; although it is sad that Dick Bakker will not see it in print, I am glad that it could be completed under his supervision.

The origins of my concern with adverbials and word order can be traced back to the writing - in 1976 - of an application for a research period. After the Free University had granted it (BRO 76/4), this concern rapidly became the dominant one in my research. But the Faculty of Letters of the Free University made it possible, by allowing me a 10 months study leave, that this book actually got written. One linguist has been there from the very beginning up till today, and I am very much indebted to her in a general way; Saskia Daalder contributed much to my present view of the field, as those who participate(d) in the thursday-afternoon sessions on "Grammar and Pragmatics" that she has now been organizing for a number of years will recognize at several places in this dissertation. It is not useful and not possible for me to indicate in detail in what respects the views expounded here draw on those discussions on thursdays (as well as others), but I embrace this opportunity to acknowledge the fact that it is largely due to her original, often both provoking and stimulating ideas that being a linguist at this university is sometimes quite exciting.

The last part of the research reported in this book was carried out in the framework of the Free University research programme "Functional Language Research: Grammar and Pragmatics" (LETT. 83/9, financed by the Dutch Ministry of Education), and I am indebted to a number of participants in this programme in particular: Theo Janssen, Margreet Onrust, Elseline Vester, and Mariette Willemsen for making me try to clarify my ideas on a number of issues, Lachlan Mackenzie and especially Mike Hannay for correcting my English. Comments by Nel Keijsper, Bob Kirsner, Margreet Onrust and Sandra Thompson on a preliminary version furthermore contributed significantly to the present formulation of some ideas in this book that I would like to think of as 'central'. I owe a special debt to Theo Janssen who, from the day he became involved in the guidance of the work on this thesis, has shown a very stimulating interest in it. Of other people involved in getting this book finished I want to mention Bernard Al in particular, who was there for providing moral support on one or two occasions that I needed it. Also José Birker, for helping me getting started with the translation of the examples; and my wife's parents, who enabled me to produce this book with the help of modern technology.

My wife Anneke has been the only person in the course of the years with whom I have discussed all my attempts to describe the interpretation of a specific sentence in relation to the order of the words; some of these attempts were never committed to paper (or even to the keyboard) as a consequence of her convincing comments, and personally I feel that the book has only benefited from it. I have a lot more to thank her for, but there are also a lot more and better occasions to express that gratitude.

Introductory Notice

The following conventions are used in the presentation of examples:

- marking of an example with a question mark or some other special symbol does not indicate that the example is assumed to have some inherent special property ('ungrammatical', for example), but it only indicates that at that point of the discussion, the interpretation of the example is unclear, or contrastive, or something like that. Thus it may occur that an example which is first introduced with a question mark is later presented without any special marking (after a plausible interpretation has been established, for example).
- the position of a pitch accent is indicated by means of underlining of the syllable bearing the accent;
- when only one accent is indicated, it represents the last accent in the example sentence; it is not implied that it is the only accent in the sentence;
- when more than one accent is indicated, the last one indicated represents the last accent in the example sentence;
- the notation of intonation contours is according to IPO-conventions (cf. also Keijsper (1984));
- examples may be accompanied by material from the immediate context; this material is between square brackets: [and].

Examples are followed by glosses (word for word translations); so-called particles for which no translation is readily available are indicated as "PART". If the interpretation of the sentence is not 'odd', an English translation is given too (between double quotes), except in a few cases where this would have been identical to the translation of an immediately preceding example, or redundant in view of the gloss. In cases where no straightforward translation was possible, attempts have been made to capture in the translation those interpretive aspects which are specifically relevant to the discussion at that point.

Chapter 1

On Describing the Syntax of Adverbials in Dutch: the Nature of the 'Problem'

1.0 Introduction

The subject matter of this study, in terms of the descriptive problems that are addressed, consists of a certain set of relations between word order and the interpretation of sentences in Dutch. The main problem is the analysis of the relation between a certain position of an adverbial modifier in a sentence and the interpretation both of the adverbial, of other sentence elements, and of the entire sentence. As for the interpretation of the adverbials themselves, an important issue is constituted by the traditional distinctions between different types of adverbials, the main one being between those that are said to modify the entire sentence and those that are said to modify only the predicate part, i.e. the alleged distinction between sentence modifiers and predicate modifiers. As for the interpretation of other sentence elements with respect to an adverbial occurring in a certain position and for the interpretation of the entire sentence, attention is paid to several different aspects, with the 'information structure' of a sentence, the interpretation of different types of NPs, and transitivity playing an important role.

Throughout the book, attempts will be made to make the analysis of the specific descriptive issues bear on fundamental conceptions in linguistics. As far as I can see, this is not very generally the case with problems involving the analysis of adverbials, and it seems legitimate to ask why. In other words, why is it that the study of the 'syntax' of adverbial modifiers, at least for a number of decades now, has not formed an area of central interest for the development of linguistic theories (unlike, say, the syntax of subjects and objects, passive constructions, anaphora, etcetera)? Part of the answer, in rather abstract terms, seems to be that, on the one hand, linguistics is conceived as a discipline investigating relations between certain aspects of form (in sound and/or writing) and certain aspects of interpretation, looking for systematic relations of this

kind, while on the other hand, relationships between the distribution of adverbials within sentences and the interpretation of these sentences and their elements do not appear to show any interesting systematics at all. For example, saying that misschien ("perhaps") modifies the contents of the entire sentence in (1), while met de hand ("by hand") modifies only the predicate, is one thing, but what is the systematic relevance of the observation?

- (1) Nu heeft hij misschien de uitslag nagerekend
Now has he perhaps the result checked
"Now he has perhaps checked the result"
- (2) Nu heeft hij met de hand de uitslag nagerekend
Now has he with the hand the result checked
"Now he has checked the result by hand"

The difference does not appear to have important consequences in terms of distributional possibilities, as the parallels between (1)a - (1)c and (2)a - (2)c suggest:

- (1)a Misschien heeft hij nu de uitslag nagerekend
Perhaps has he now the result checked
"Perhaps he has now checked the result"
- (2)a Met de hand heeft hij nu de uitslag nagerekend
With the hand has he now the result checked
"He has now, by hand, checked the result"
- (1)b ?? Nu heeft misschien hij de uitslag nagerekend
Now has perhaps he the result checked
- (2)b ?? Nu heeft met de hand hij de uitslag nagerekend
Now has with the hand he the result checked
- (1)c Nu heeft hij de uitslag misschien nagerekend
Now has he the result perhaps checked
"Now he has perhaps checked the result"

- (2)c Nu heeft hij de uitslag met de hand nagerekend
 Now has he the result with the hand checked
 "Now he has checked the result by hand"

There may be examples of less parallelism, but it nevertheless seems clear that the difference is not very important from a syntactic point of view, otherwise the observed distributional differences would have been bigger; there does not seem to be a canonical position for either type of adverbial, for example. And even when a subtle distributional difference might be observed, as between (3) and (4), it is not at all clear that this difference has anything to do with the distinction between modifying the sentence and modifying the predicate:

- (3) Nu heeft misschien niemand de uitslag nagerekend
 Now has perhaps no-one the result checked
 "Now perhaps no-one has checked the result"
- (4) ?Nu heeft met de hand niemand de uitslag nagerekend
 Now has with the hand no-one the result checked

If this impression of the lack of something comprehensive and systematic in the distribution of adverbials is correct, then the syntax of adverbials simply does not bear on the central problems of linguistics.

However, one of the purposes of this study is to show that the impression is false, at least as far as adverbials in Dutch are concerned. In order to achieve this purpose, it is necessary first to discuss at a rather general level the question in what way systematic relations between aspects of form and aspects of interpretation could in principle be analyzed at all: if we are not to stop at 'simply' establishing such relations, but rather wish to try to make sense out of them, to understand why these relationships are found, then we must have an idea as to the options available, so to speak; if we want to answer the question, for example, of whether there is any connection between different types of observed regularities, we must at least have some idea of what might determine what, whether one aspect could appropriately be called the source of another, what kind of interpretations

could be systematically related to what kind of formal phenomena. In short, there must be some general ideas, independent of a specific model of grammar, as to conceivable significant relations between form and function in language.

An actual analysis, however, presupposes that certain choices have been made in these matters, i.e. one cannot start out to analyze facts with only the facts themselves available and no analytic tools: an analysis simply is a description of certain phenomena in terms of assumed types of recognized relations between forms and functions. The first two chapters of this study are meant to provide a general discussion of these issues. The remainder of chapter 1 will contain an attempt to characterize the ways in which form and function might in principle be conceived to be related. In chapter 2, it will be argued - not for the first time, obviously - that choices made on these issues are intricately related to general views on language, on knowledge and the use of language, thus, ultimately, on human beings, as the entities knowing and using languages. One specific approach embodying such a complex of assumptions, to be labelled the "formal approach" and elaborated most strongly in generative grammar, will be examined in some detail, and ultimately rejected,¹ with special attention being paid to some specific issues in the history of generative grammar, in order to substantiate claims about the general character of the "formal approach". Those readers who are not immediately interested in the substantiation of these claims, but rather want to move on to the actual analysis as soon as possible, may find it useful to skip 2.4, and especially 2.4.2; the other sections of chapter 2 are organized in such a way that this should be possible without crucial problems in understanding the general argument.

In chapter 3 we will return to the problem of describing relations between the position of an adverbial phrase and aspects of the interpretation of the sentence. This chapter investigates proposals for this description which have been developed within the generative framework. It provides an illustration of how the general character of generative linguistics as analyzed in chapter 2 is manifested in the analysis of the distribution of adverbial phrases in Dutch. At the same time it also introduces some important observations on this distribution.

The chapters 4 and 5 contain the core of our analysis of the distribution of adverbial phrases within sentences and of the way this relates to the interpretation of the sentence and its elements (including the adverbial phrase itself). Chapter 4 describes a number of phenomena occurring in a limited part of sentences (the so-called middle part), in terms of, on the one hand, an assumed specific function of so-called speaker oriented adverbials as modifiers of the 'comment' of a sentence, and on the other hand, specific hypotheses about the meaning and the use of other aspects involved (accentuation, pronouns, articles, and so on). Chapter 5 tries to provide a more general analysis, in terms of both descriptive and conceptual content: it also takes into account those positions of adverbials which chapter 4 did not say anything about (roughly, the first and last position in a sentence), and it attempts to answer the question of where the assumed specific function of comment modification comes from.

Chapter 6 contains an extension of the methods and concepts applied in the analysis of adverbials to the analysis of the relation between the interpretation of nominal phrases and their position relative to each other within a sentence; this chapter thus concerns the relation between the traditional grammatical functions ('subject', 'object') and the positions, within a sentence, of the NPs performing such functions.

1.1 Meanings and effects

In 1.0 we said that linguistics is conceived as a discipline which investigates relations between certain aspects of form (in sound and/or writing) and certain aspects of interpretation, and which looks for systematic relations of this kind. This general purpose of linguistics is not as unproblematic as it might seem at first sight. This becomes evident as soon as we try to answer the question in what ways the relation between an aspect of form and an aspect of interpretation may in principle be conceived.

Firstly, the co-occurrence of an interpretive aspect with some 'external linguistic phenomenon' - for example, a sound or complex of sounds, some (simple or complex) intonational phenomenon, a certain sequence, or some particular combination of elements - must exhibit at least some regularity

in order for this co-occurrence to be considered a potential object of linguistic description and analysis. But the observation of such a regularity does not at all mean that it is already clear what an analysis would have to achieve with respect to the observed relationship: it would be if the task for a grammar were conceived as no more than to present rules which stipulate the relationship. But more or less systematic relationships between aspects of interpretation and external phenomena may be conceived in four fundamentally different ways:

(A) I. The interpretive aspect may be construed as the meaning of some linguistic form manifested in the external phenomenon. In that case, it is the immediate and irreducible function of a certain linguistic form that the interpretive aspect is produced whenever an expression exhibiting this form is used: the relation between form and interpretation is conceived as immediate. Consider a possible example: if a speaker uses a preposition like gedurende ("during"), we know that he presents a state of affairs as 'protracted' over a certain period.

II. The interpretive aspect is not held to be brought about exclusively through the occurrence of one particular linguistic form - so it is not construed as a meaning -, but rather is construed as the joint result of several forms that are present within the same utterance: the interpretive aspect is conceived as an indirect effect, which might be said to be determined 'positively' (through the presence of a combination of elements).² An example might be the interpretation of non-durative Aspect in Dutch, which has been shown to be "compositional" in nature (Verkuyl (1972)).

III. The interpretive aspect is neither construed as the meaning of some linguistic form, nor as the result of co-operating meanings of several elements, but rather is construed as a result of the absence of certain elements, i.e. it is said to be 'entailed' by the meanings of one or more of the elements that are actually used as long as it is not 'blocked' by other factors: the relation between interpretation and external phenomenon is again one of an indirect effect, but this time determined 'negatively'. As an example, consider the fact that the contents of a declarative sentence are generally taken to constitute a presentation of a state of affairs as simply being the case, unless the speaker has used some explicitly modal expression.

IV. Finally, there is the possibility that a certain external phenomenon does not determine (immediately or indirectly) some aspect of interpretation, but that just the reverse is the case; that is to say, the phenomenon is brought about by meanings and effects of other elements in the utterance: the

external phenomenon might then be characterized as a symptom of the interpretive aspect involved. An example can be found in Kirsner's (1985) discussion of the fact that the demonstrative deze ("this") tends to occur earlier in the sentence than the demonstrative die ("that"); this difference is analyzed as a consequence of the difference in use between deze and die for referring to entities mentioned earlier in the discourse (which relates directly to the difference between the meanings postulated for these elements), rather than as an independent factor which is the cause of the observed difference in use.

The fact that relations between aspects of form and aspects of interpretation may be conceived in such divergent ways implies that proposals about parts of the grammar of some language, and especially hypotheses about immediate relations between form and interpretation, can hardly be evaluated in isolation; this is only possible within the context of an evaluation of more comprehensive sets of connected ideas on the grammar and the use of that language, and on language in general. There is no way to observe immediateness or indirectness of relations between form and interpretation.

Thus, this exposition reveals the risk of what might be called the "concreteness fallacy": some concrete aspect of interpretation, relatively easily observable in some set of data, may wrongly be taken for the meaning of some category, i.e., it may be taken to be an immediate result of the use of formal means without further analysis, while such a further analysis might have convinced one that it is actually better regarded as an indirect effect. As long as the options presented in (A) are not sharply distinguished, and the term "meaning" is used, consequently, in a rather loose sense, this fallacy may be expected to occur quite easily.

Furthermore, it is clear that it is necessary to distinguish sharply between the notions 'interpretation' and 'external phenomenon' on the one hand, and both 'meaning' and 'form' on the other. The latter two are used to suggest abstract analytical concepts, while the former are closer to the domain of observation. When we talk about 'form', we actually mean 'form class': a set of elements, manifested in external phenomena, which is identified as having meaning, i.e., as relating immediately to (one or more) aspects of interpretation. The basic elements constituting form classes may be of several different kinds: sound segments and their distinctive features (phonological features), morphemes (including

lexemes), positions ("first", "final", "second", "element of ...", "before", "after", etc.), accentuation and intonation (pitch, rise, fall (fast or slow), etc.). When a set of such elements is recognized as a unit in a linguistic description, it constitutes a (postulated) category. Word classes and 'syntactic categories' projected from them, like NP or PP, are examples of such categories, but also things like "sentence accent", defined, for example, as "the last perceptively relevant fast change of pitch in a sentence" (a combination of positional and intonational features), "finite verb in first position" (a combination of morphological and positional features), and "dental suffix" (the set of (alleged) morphemes consisting of -t, -d, and -n, which is defined by a combination of phonological and morphological features).

Suppose an interpretive aspect M is analyzed as relating immediately to a set F of such externally manifested features; then M is, by hypothesis, a meaning, and F is a form class. As to the 'uniqueness' of the relation between F and M, there are four logical possibilities:

(B) I. F has one and only one function: producing the interpretive aspect M, and M cannot be produced by the use of elements of another form class; i.e., if we have some form F, then we also have the interpretation M, and if we have interpretation M, then we also have some form F. In other words: the form class F is not homonymous, and there are no synonyms for M.

II. F has one and only one function: producing the interpretive aspect M, but M is not necessarily produced exclusively by a form F; i.e., if we have some form F, then we also have the interpretation M, but if we have M, then we do not necessarily have some form F. In other words: the form class F is not homonymous, but there may be synonyms for M (or, perhaps, indirect ways of producing M).

III. F does not have precisely one function - sometimes a form F produces M, but sometimes it produces something else -, but the interpretation M can only be produced by the use of some form F; i.e., if we have a form F, then we do not necessarily have the interpretation M, but if we have M, then we do have some form F. In other words: the form class F is homonymous, but there are no synonyms for M.

IV. F does not have precisely one function, nor is the interpretation M produced exclusively by a form F; i.e., if we have some form F, then we do not necessarily have the interpretation M, and if we have the interpretation M, then we

do not necessarily have some form F. In other words: the form class F is homonymous, and there are also synonyms for M.

Given these possibilities,³ it is clear that, even when the choice has been made to regard an aspect of interpretation as immediately determined by form, there are still other choices to be made in the construction of an analysis, choices which are just as much underdetermined by the data as the ones on the (in)directness of the relationship between form and interpretation.

Although the two types of options presented in (A) and (B) are not logically interdependent, they are so to a large extent in practice. The reason is that the degree of complexity implied in a specific choice on the one issue generally is inversely proportional to the degree of complexity implied in choices on the other, as the following line of reasoning makes clear. If one does not want to allow for indirect effects as an important part of relations between aspects of form and aspects of interpretation, then one views the way interpretations come about as relatively simple: they are all, or mostly, determined immediately by forms; but on the other hand, this will generally imply that one has to allow for more complexity in the description of these alleged immediate relationships, for example in the sense that one has to assume a relatively high degree of homonymy. The reverse holds as well: if one does not want to allow (for whatever reason) for much homonymy, this will generally imply that one views the way interpretations come about as relatively complex, in the sense that a relatively large part must be assumed to consist of indirect, derived effects, rather than meanings.

The latter position thus represents a more strict view on immediate relationships between 'form' and 'meaning': an aspect of form, as the formal side of a category, is viewed as constituting a sign for some concept, some mental operation to be performed, or whatever else may constitute the substantive side of the category. The former view cannot be said to embody such a conception: if there is a relatively high degree of synonymy and/or homonymy, then relationships between 'form' and 'meaning' are generally not viewed as constituting the formal and substantive sides of signs, for this notion of sign presupposes a certain constancy in the relationship between its formal and its substantive side; this must be 'reliable', so to speak, in order for it to be legitimately called a sign.

We will return extensively to these issues, and several related ones, in chapter 2; what I want to do here is to elaborate a little further on how these distinctions apply to the descriptive domain of adverbials and word order.

1.2 Extending the diagnosis of the problem of adverbials

The exposition of the previous section allows for a certain sharpening of the tentative diagnosis of 1.0. It was said there that the reason that the 'syntax' of adverbials is not of central interest for the development of linguistic theories is that it is unclear whether there is anything systematic in relations between allegedly relevant interpretive distinctions and the distribution of adverbial phrases, while the nature of linguistics only turns such relations into areas of central interest if they are systematic. We are now in a position to see several aspects of this problem more clearly.

Suppose one wants to locate some intuitive difference between certain adverbials in the grammar rather than in the lexicon, analogously to the difference between subjects and objects, for example. In terms of 1.1, that would involve considering this interpretive difference as a meaning, the immediate result of some set of external phenomena. One possibility, for example, would be to assume that there are different word classes of "Adverbs", from which all adverbials may then be assumed to be projected. It is clear, however, that this presupposes something which results quite easily in the assumption both of many homonyms and of many synonyms: the very idea that "Adverb" should be considered a word class from which all adverbial modifiers are projected. For this would mean, for many lexical elements, that they are capable of signalling more than one function, and for elements from different word classes that they may signal the same function. In fact, it seems that elements from all major word classes (and, by extension, all major syntactic categories) except verbs may perform adverbial functions; thus, a noun phrase like iedere minuut ("every minute") may function as a subject or object, and also as an adverbial of time. One could of course think of ways to avoid the necessity of so much homonymy; however, the question of the relation between word classes and the interpretation of adverbials is not part of the subject matter of this

study, so I will not go into this point any further.

More important from the point of view of the problem of the description of word order is the possibility of locating some interpretive difference between different adverbials in the syntax, i.e., of assuming that certain distributional phenomena immediately result in certain specific interpretations. In view of the relatively big overlap of positional possibilities, this would, at first sight, also lead to a description with relatively many homonymous signs (the same position being able to signal different functions), and synonymous ones as well (different positions being able to signal the same function). In this case, however, it is not so difficult to see how this potential objection could, in principle, be countered, given the development of transformational grammar: one might assume 'underlying structures', which do not in themselves exhibit (that much) homonymy and synonymy, from which the (homonymous or synonymous) 'surface structures' may be derived by means of 'movement rules'. We will be dealing extensively with this kind of 'strategy' in a general way in chapter 2, and more specifically with respect to adverbials in chapter 3.

From the point of view of an approach which adopts a relatively strict view on relationships between form and meaning (the 'sign view' from 1.1), and therefore prefers not to adopt the idea that semantic differences between adverbials are directly 'coded' in word order, there are different problems, to be summarized as "But word order does make some difference". Recall (3) and (4), for example:

- (3) Nu heeft misschien niemand de uitslag nagerekend
 Now has perhaps no-one the result checked
 "Now perhaps no-one has checked the result"
- (4) ?Nu heeft met de hand niemand de uitslag nagerekend
 Now has with the hand no-one the result checked

Although (4) is not to be called ungrammatical, it is still 'worse' than (3); ⁴ how should one go about explaining this difference if there is no immediate relation between the position to the left of the subject (niemand) and the type of the adverbial? We face the task, then, to develop a more abstract analysis of the function of word order which makes

such differences comprehensible without assuming that word order is a sign (in the strict sense) for differences between types of adverbial functions.

Furthermore, an analysis of the role of word order in that respect should not be totally unrelated to a description of other interpretive differences, as between (1) and (1)c:

(1) Nu heeft hij misschien de uitslag nagerekend
Now has he perhaps the result checked
"Now he has perhaps checked the result"

(1)c Nu heeft hij de uitslag misschien nagerekend
Now has he the result perhaps checked
"Now he has perhaps checked the result"

There seems to be an interpretive difference between these sentences, let us say as to the question of what the adverbial primarily relates to. How does one relate this difference to the one exemplified in (3) and (4)? If this latter difference is not to be attributed to the meaning of some word order sign, but is rather an indirect effect, then the question is what the forms and the contents of the factors in the explanation of this effect actually are, and also whether they can plausibly be argued to underly the difference between (1) and (1)c, too.

Questions like these will be our main concern from chapter 3 on, while chapter 2 addresses, among other things, the question of the status of the concept of 'underlying form' in linguistic theory.

Chapter 2

General Considerations on a Formal versus a Functional Approach to Grammar

2.0 Introduction

We will leave the more concrete perspectives mentioned in the final section of chapter one for some time now. In this chapter we will be confronting two opposite approaches to the problem of the relation between form and function (cf. 1.1) in terms of goals of linguistic theorizing, elaborating some general points of chapter one. Specifically, we will develop a conceptual criticism of formal linguistics on the basis of both abstract considerations on the nature of linguistic theory (2.4.1) and the actual history of generative linguistics in particular (2.4.2).

2.1 The correspondence between innateness and complexity

Recall the four ways that an aspect of interpretation may in principle relate to some external linguistic phenomenon, outlined in 1.1:

- I. The interpretive aspect might be a meaning, i.e. determined immediately by the occurrence of some linguistic form.
- II. It might be an indirect effect (not the meaning of some linguistic form) which is positively determined, i.e. present because of the presence of certain linguistic elements.
- III. It might be an indirect effect which is negatively determined, i.e. present because of the absence of certain types of elements.
- IV. The external phenomenon may be determined by (constitute a 'symptom' of) the interpretive aspect, which is somehow produced by other formal elements.

As was already hinted at in 1.1, the existence of these four possibilities rules out the existence of any simple method to determine which relations between aspects of interpretation and external phenomena must be attributed directly to the linguistic system and which relations come about in a more indirect way. To put it differently: observables, on the side of 'content', are at best aspects of interpretation, not the meanings of linguistic elements behind them (these are not accessible without analysis); on the

side of 'form', observables are at best external phenomena, not the formal categories behind them (these are not accessible without analysis, either). Thus there is no way to establish a priori, and without analysis, what are the units of some language (i.e., more or less fixed combinations of form and meaning). It is a crucial, by no means trivial part of the scientific study of a language - when confronted with all kinds of possible combinations of forms and meanings (many of them actually proposed) - to form some ideas as to the nature of the units of the language.

In a sense, this task resembles the one set to the child who is to acquire his/her mother tongue: from a vast stock of linguistic material surrounding him/her, and all kinds of interpretive aspects that go with it, the child will have to distil what are the forms and what are the meanings that are directly linked, i.e., what are the units of his/her language. This is a way of saying that theories about language are also about language acquisition and, consequently, about 'knowing a language as a native speaker': the linguist, by presenting analyses, is also making some specific claims about what a native speaker of the language knows, specifically about the knowledge he/she possesses of fixed connections of certain formal elements with certain meanings. To be sure, this is not to say that linguistic hypotheses more or less directly reflect the knowledge that native speakers have of their languages: first of all, the tasks involved are not identical, and second, attributing the content of an analysis to the mind of the native speaker would involve the same fallacy as, say, attributing the conceived content of the law of gravity to the objects said to be 'governed' by it. There might be a certain tendency to think the content of a linguistic analysis 'into' the native speaker, because both the analysis and the analyzed linguistic material are products of certain human activities, while there is no such 'parallel' in the case of, for example, the analysis of planetary motion and planetary motion itself; but in all kinds of science, including the humanities, the principled gap between the analysis and its object should never be denied, at the cost of attributing the 'mental capacities' involved in the construction of the analysis to the object itself, i.e. of indulging in philosophical 'Idealism'. What I have in mind is simply this abstract relationship: a certain view of language embodied in a theory also implies a view of the way language is acquired and of what it is to 'know' a language.

Thus, suppose we were to propose analyses containing the hypothesis that the relation of form to meaning in a given linguistic system is essentially simple (say, in principle one-to-one); then we are also saying that the structure of the 'linguistic competence' of a native speaker of that particular language is essentially simple. But if we were to propose analyses containing the hypothesis that the relation of form to meaning is essentially complex, then we are also saying that the 'linguistic competence' of a native speaker is an essentially complex system as well. In both cases, questions arise as to why -- because of what principles -- things should have to be as they are said to be. At this point, linguistic theories do not only become widely divergent in themselves, but they also appear to embody quite conflicting general views on language and, ultimately, on human beings: those who consider the system of the language as essentially complex will generally tend to assume that human beings come equipped with special capacities for learning a language, i.e. they will tend to assume a fairly intricate innately given language faculty, since there could hardly be another way for such a complex system to be acquired in a relatively short amount of time, while those who do not want to assume (many) highly structured innate capacities will try to describe language systems as essentially relatively simple.² The next two sections will elaborate on some of the consequences of both positions.

2.2 The functional approach: background assumptions

If a system of linguistic units is essentially simple, the question of what provides the basis for this simplicity naturally arises. Now 'learning a linguistic unit' means: learning to recognize a class of external phenomena as a form class, i.e. as the formal side of a linguistic category. And a category will generally not be constituted for reasons intrinsic to the external phenomena. To give a simple but clear example, take the phenomena of attaching an element te or de (in Dutch) or ed (in English) to a verbal stem, the alternation of vowels in a verbal stem, the alternation of complete verbal stems, and several combinations of these. There is nothing in these external phenomena as such to unite them into one category 'past tense formation', which must nevertheless be done in any descriptively adequate grammar of Dutch (or English):³ what provides the basis for the

unity of a category is the unity of the meaning of a form class. Thus the explanation of why a linguistic system is essentially simple lies in a non-formal view of the acquisition of the categories. This principle also imposes a quite strong restriction on grammatical analyses: if it is impossible to find a unifying meaning for some alleged category, the hypothesis that it constitutes a real unit of the language will have to be dropped (cf. Daalder (1983: 60/61)). Simplicity in grammar thus means, specifically, that a constant, specific meaning is related to each form class, so that the members of that class can serve as means of recognizing and identifying the meaning, as a kind of 'anchorage' of the meaning. In order to fulfil this function, the members of a form class must be identifiable as such, which means that synonymy and especially homonymy are undesirable and will generally tend to dissolve - at least at the level of categories, not so much at the level of individual elements - though these phenomena are not absolutely excluded.

It will be clear that in such an approach, the unitary meanings involved (constant elements in all cases where a member of a certain category is used) must be of a relatively abstract nature. In practice, this implies a strict distinction between the meanings of linguistic categories (i.e., signs) and the ad hoc interpretations of certain combinations of signs (i.e. messages associated with sentences). Thus there is a considerable 'gap' between the simplicity of the supposed underlying system of forms and meanings and the complexity of observed external phenomena related to interpretive effects; this gap will have to be bridged, at least in part, by means of some notion of 'inference' from the (combination of) signs to the messages, which generally involves assumptions about 'normal' human intelligence, knowledge of the world, 'standard' behaviour of the entities referred to and the general nature of properties and processes designated by the signs. Thus the general idea is the following. A sign may occur, always with its one meaning, in different contexts (verbal and non-verbal), and the 'sum' of the sign and its context may give rise to interpretations which are quite different from one case to another. A concrete interpretation of an utterance is thus generally viewed as composite and complex, effected by several kinds of inferences on the basis of the meanings of the signs, plus context, knowledge and belief about the world, and perhaps other things as well.

Within this approach there is in principle yet another restriction on hypotheses about categorization in a language: that the categorization has to be pragmatically functional. Put extremely, this would mean that every category must constitute a useful instrument, at least in some respect, for the linguistic community (and in principle also for the individual); the idea behind this being that something would not be learned as a fixed unit if it did not have any more permanent use. Generally, however, this point is treated with caution, and understandably so, for, given that we could locate the 'usefulness' of learning the language at least partly in the fact that an individual is thereby socialized, becoming a member of the speech community, there is a certain risk of circularity: ultimately, the very existence of a category is then itself said to provide the basis for its existence. What is generally more relevant here is some notion of relative usefulness: to the extent that some instrument is more useful, or serves more general interests of speakers, the chances that it will be learned permanently, and that it will be wide-spread in time and space, will be bigger in proportion.⁴ So even if an answer to the question concerning the pragmatic functionality of a linguistic unit cannot be reasonably demanded in every separate case, the question is not without sense: this functionality will not consist in simply 'constituting the speech community' for all categories.

2.3 The formal approach: background assumptions

Now consider the point of view according to which a system of linguistic units is essentially complex. Then the question arises how the acquisition of this complex system could occur. The answer is, of course, well known: there is a highly structured innate language faculty, determining the process of grammar acquisition:

Given the richness and complexity of the system of grammar for a human language and the uniformity of its acquisition on the basis of limited and often degenerate evidence, there can be little doubt that highly restrictive universal principles must exist determining the general framework of each human language and perhaps much of its specific structure as well. [...] The child's initial state, it seems, must lay down the general principles of language structure in fair detail, providing a rich and intricate schematism that determines (1) the content of linguistic experience and (2) the specific language that develops under the boundary conditions given by this

experience. (Chomsky (1980b: 232/3)).

As an aside, let us immediately stress that the alleged 'complexity' is not, unlike what the term "given" in the first line of this quotation suggests, something simply observable, as we have in fact already been arguing: the sum of external phenomena and interpretive effects accompanying them may well be observably complex, but this implies nothing as yet about the underlying system of units of the language.

Taking this into consideration, the logic of the argument is clear: if the observed complexity of the phenomena is attributed directly to the form-meaning relations in the linguistic system themselves, i.e. if it is thought impossible to discover an overall simplicity in those relations, it is generally impossible to appeal to unity of meaning as the foundation of the categories postulated; therefore the form classes involved must be assumed to be autonomous, as a rule: they cannot derive their unity from anything but from themselves. And it is only one step from this autonomy of the form classes to the autonomous and highly structured innate language faculty: what else could make a language-learner acquire a formal categorization which does not directly correspond to meaning and which is therefore ⁵ not pragmatically functional either? What we see then is that there is a strong relationship between viewing language as essentially form, and viewing it as essentially autonomous: if form is dissociated from meaning and pragmatic function, the structure of the system of language, now conceived as a structure of form, can hardly be seen as non-arbitrary, as essentially motivated.

Now how does this view ('the underlying system is complex') relate to the way a grammatical description is organized? Recall the four logically possible ways forms and meanings (i.e. immediately determined aspects of interpretation) could be related in a linguistic description (cf. 1.1):

- I. Some form F is used only to produce aspect M and aspect M is only produced by form F (F is not a homonym, there are no synonyms for M).
- II. Some form F is used only to produce aspect M, but aspect M may be produced otherwise (F is not a homonym, but there may be synonyms for M - or perhaps indirect ways of producing M).
- III. Some form F is used not only to produce aspect M, but aspect M is only produced by form F (F is a homonym, but there are no synonyms for M).
- IV. Some form F is used not only to produce aspect M, and aspect M

is not only produced by form F (F is a homonym, there are synonyms for M).

At first sight one might think that attributing a great amount of complexity to the system of form-meaning relations itself would largely result in descriptions of type IV relations: these do not show one-to-one correspondences, which is precisely what is observed in the phenomena. However, this is not the usual procedure: in practice, there is a constant effort to introduce some systematics of forms and meanings into the apparent chaos of relations between external phenomena and interpretations and this is the case in generative linguistics too. That is to say, there is an effort to view the observed unsystematic relations (seemingly all of them of type IV) as ultimately based on systematic ones of type I or II. On some reflection, this is quite understandable, since with type IV relations it is implied that 'anything goes': no constraints whatsoever are imposed on postulating relations of forms and meanings, and therefore any conceivable set of concepts could be proposed as being embodied in a linguistic system (i.e. as constituting a set of meanings in some language). But in that way linguistics would in fact stop being linguistics; as linguists we are not interested in arbitrary sets of concepts - and in principle, there is an indefinite number of different ways to impose order on reality -, but we are interested in precisely those concepts which are 'moored' by the forms of the language, i.e., which no longer have an inherently momentary nature, but have acquired the more or less continuous status of objects of knowledge, as these concepts, unlike others, are known to be the meanings of certain forms. Whether these concepts correspond to philosophical, logical, scientific, or some other kind of category for analyzing reality is of no principled interest for the linguist as a linguist. In other words, if it is granted that the relations between form and interpretation in language are to be described by a linguistic analysis (and this is indeed the opinion in generative linguistics), then at least some regularity is to be presupposed.

This position is definitely not the privilege of functional linguists, although they usually stress it most strongly (cf. the "Introduction" of Bolinger (1977) for an eloquent way of putting it): it is also fundamental to Chomsky's rejection of model theoretical semantics as an approach to the analysis of natural languages. For example, it is elementary to the discussion in Chomsky (1977b: 197-199) that the semantic framework used in

analyzing natural language expressions such as quantifying ones is not a matter of arbitrary choice, but must take into account the actual behaviour of these expressions (cf. also Chomsky (1981c: 10/11)). The same point is brought up quite explicitly in Chomsky (1982: 90-94). At one point, Chomsky suggests: "Suppose we do try to approach the analysis of modalities like might have been in the linguistic sense, not in the logical sense" (1982: 91); he then goes on to point out several unanswered questions relating to the interpretation of such expressions if connected to a personal name like Nixon, and concludes by saying that these have to do "with the fact that language does not have names in the logician's sense. A name in the logician's sense is just a symbol connected somehow to an object, and language doesn't work like that. Language only has names that fall into categories: the name "Nixon" is a personal name [...] (if we didn't know that it was a personal name, we would not know how to use it)" (Chomsky (1982: 92/93)). Paraphrasing in the terms used above: the concept of "logical name" may be a conceivable one, but it is not rooted in the form-meaning relations of the language, i.e. it is not (part of) the meaning of some linguistic category. It will be clear that this position embodies the idea of the necessity of sharply distinguishing true linguistic meaning from linguistically speaking arbitrary notions - whatever their usefulness for different purposes (cf. also Koster (1983)). I think that these insights are important, for linguistics, and that they make it clear that it would at best be misguided to present Chomsky's position with respect to the problem of the relation between form and meaning as involving an a priori logically inspired view of meaning.

But the question still remains: if the complexity of the relations between external phenomena and interpretations is attributed to the form-meaning relations, how can one give descriptions which are not characterized mainly, or even largely, as type IV relations? The answer is that form itself is to be regarded as a composition of forms, such that each of the component parts of this composite form (e.g. 'phrase structure', 'underlying form', 'logical form' and the like) does maintain a one-to-one relation to some aspect of meaning. And there are 'rules' mapping these different 'levels of representation' ultimately onto a 'surface form'. Thus the complexity of the phenomena is viewed as a manifestation of the complexity of linguistic form, (i.e. within the linguistic system), and the description of the relations between forms and interpretations can be

literally reduced to the description of the relations between different forms. Thus the label "formal" for this approach is indeed quite accurate.⁶

This is in fact a constant property of generative linguistics from 1957 on. In chapter 8 of Syntactic Structures (with the significant title "The Explanatory Power of Linguistic Theory"), it is argued that linguistic levels are not only useful for capturing generalizations, but that they also provide means for the explication of certain interpretive phenomena - which in turn provides justification for the levels. The phenomena involved are those of 'homonymy' and 'synonymy', i.e. precisely those phenomena which constitute the core of the idea of the complexity of the system of form-meaning relations. The assumption of different levels enables the linguist to represent 'the same' expression in different ways at different levels (and identically on one), thus formally accounting for the phenomenon of ambiguity. At the same time, the very same assumption also enables the linguist to represent 'different' expressions identically at some level (and differently on another), thus accounting formally for the phenomenon of there being 'superficially different' sentences which are understood in the 'same' way (in certain respects). In this way, the distinction of levels of representation contributes to an explanation of what it is to understand a sentence: "What we are suggesting is that the notion of "understanding a sentence" be explained in part in terms of the notion of "linguistic level". To understand a sentence, then, it is first necessary to reconstruct its analysis on each linguistic level" (Chomsky (1957: 87)). And in chapter 9, containing the well known arguments against 'basing grammar on meaning', Chomsky formulates his own position as follows:

An investigation of the semantic function of level structure [...] might be a reasonable step towards a theory of the interconnections between syntax and semantics. In fact, we pointed out [...] that the correlations between the form and use of language can even provide certain rough criteria of adequacy for a linguistic theory [...]. We can judge formal theories in terms of their ability to explain and clarify a variety of facts about the way in which sentences are used and understood. In other words, we should like the syntactic framework [...] to be able to support semantic description, and we shall naturally rate more highly a theory of formal structure that leads to grammars that meet this requirement more fully. (Chomsky (1957: 102)).

As Chomsky rightly stresses, the purely formal character of the descriptions themselves is not at all altered by this criterion of semantic adequacy ('the more a formal grammar accounts for ambiguous and/or cognate interpretations, the more highly it is evaluated'). But we do have here the formulation of a research programme which has not changed in the history of generative linguistics, however radically this may have changed in other respects. Thus, one can encounter the following in more recent work: "What kinds of mental representation should we expect a grammar to generate? Suppose that we begin with the Aristotelian conception of language as sound with a meaning. Then the grammar will generate representations of sound and representations of meaning" (Chomsky (1981c: 9)). And after some elaboration of several points, the intermediate conclusion is: "the question of how form and meaning are related now resolves to the question of how S-structure is related to D-structure, and how these two levels are related to LF" (1981c: 21).

It will also be clear what is the source of the particular 'paradigmatic' nature of generative syntax that it has had from the very beginnings on: the effort to account for 'cognateness' of sentences with a different surface form, but in some respects the same 'meaning', by assigning to them the same form on some level of representation other than that of surface form, simply is a special case of the general effort to reduce relations between 'form' and 'meaning' to relations between different forms ('representations').

Summing up this general characterization of the formal approach to the complexity of the relations between external phenomena and interpretations, we may formulate the following. As this complexity is attributed directly to the linguistic system itself, the categories of this system cannot be based on unity of meaning, so they must be conceived as autonomous formal categories. But it is highly undesirable, given the nature of linguistics, to assign meanings randomly to forms; so forms are viewed as composite, such that the component parts (specifically, 'levels of representation') may relate systematically to some assumed aspect of meaning. Thus, in the Extended Standard Theory, and specifically in the so-called Government-Binding version, the level of D-structure (roughly, the former deep structure) gives a pure representation of the grammatical functions that determine 'thematic roles', the level of S-structure (more roughly,

the former syntactic surface structure) completely determines binding relations (essentially, co-reference) between noun phrases (c.q. noun phrase positions), and only the level of LF ('Logical Form'; roughly, the former semantic representation) gives a complete representation of the effects of quantifying elements on the interpretation of sentences (cf. especially Chomsky (1981c) for general discussion, (quasi) historical background and several details of this general picture).

2.4 A conceptual criticism of formal grammar

2.4.0 Introduction

Having sketched some very general outlines and background assumptions of both a functional and a formal approach to the study of grammar, we might wonder how to choose between them. It will be clear that any appeal to empirical evidence, at this very abstract level of discussion, will be futile. Moreover, both approaches share certain features as to their 'logical structure'. Specifically, both entail the assumption of a considerable gap between observed phenomena and the actual mechanisms of language; one might say that this feature distinguishes both approaches equally, as theoretical approaches, from any linguistic practice of just listing combinations of external phenomena and interpretations - in several respects indeed an important pursuit, but it is essentially different from a theoretical enterprise.

Now, does this situation mean that no arguments relevant to the choice at hand could be established at all? I would say not; it only means that arguments will never be conclusive, but it is still worthwhile and useful to try to make the - mostly quite general - considerations on which one bases a theoretical position as explicit as possible. The fact that such positions are ultimately matters of belief does not mean that all discussion should be avoided, if only in order to give new generations of linguists the opportunity to determine their positions for themselves.

I will now present some conceptual, partly historical considerations against the formal approach, thereby (in a 'negative' way) favouring the functional approach. In 2.4.2 this will be supplemented by considerations

based on certain traits in the history of generative linguistics in particular.

2.4.1 Programmatic contradictions within the formal approach

We have characterized the formal approach as a research programme seeking to reduce the description of the relations between external phenomena and interpretations to the description of the relation between several different aspects of form (especially, different 'levels of representation'), and we have argued that the logic of this move results from the combination of two views: (a) the complexity of the phenomena reflects the complexity of the linguistic system itself, but (b) it is highly undesirable to establish only, or mainly, many-to-many relations of form and meaning, for then no principled distinction can be made between notions which are the content of linguistic categories and any arbitrary set of notions.

I will now argue that this move does not provide solutions to the crucial problems involved, and specifically that it has led, in the actual history of generative linguistics, to a self-contradictory research programme.

First, the formal approach thus conceived implies a certain a priori limitation of the domain of facts one could try to make understandable, i.e. as somehow making sense. The point is that the ultimate ('surface') form of expressions is at least in part necessarily determined by rules which have no other function than to 'translate' a representation at one level into a representation at another one. It is a consequence of assuming that different aspects of interpretation are represented at different levels of form that a large part of a grammar must consist of essentially arbitrary mapping-rules, whose only function is to relate the different interpretive aspects expressed at the different levels to one and the same 'surface form'. That speakers express themselves in certain ways has to be seen to a large extent as a matter of blindly following rules, rules they cannot fail to have acquired, given the innate structure and the relevant experience. Thus it is largely excluded in advance that both the linguistic 'conventions' in a speech community and 'deviations' from them (whether collective or individual), could be made essentially understandable, in

terms of the functions associated with the linguistic elements involved in them. In the functional approach, this perspective is at least not excluded beforehand.

However, the following considerations constitute more serious objections, as they concern problems internal to the formal approach. We have said that a more or less necessary tendency, also in formal linguistics, is to limit the ways forms and meanings may be systematically related. We now have to say that the formal, multi-level approach as such does not contain such limits at all: for if it is possible in principle to postulate some formal representation for any arbitrary aspect of interpretation, then we still do not have a principled distinction between the conglomerate of notions for which the forms of the language provide 'anchorage', and all other kinds of (sets of) logical, philosophical or scientific - but not specifically linguistic - notions.⁷ It is necessary to set up limitations to postulating 'hidden' formal representations as real aspects of the form of some linguistic expression, and that in a relevant, non-arbitrary way. The only naturally possible way, of course, is to constrain 'hidden' forms to representations that are 'independently motivated', in the sense that they are directly related, or even identical, to surface representations (of different expressions). This is a generally applicable characterization of what actually happened in the history of generative linguistics. In the beginning of transformational grammar, all input to the optional transformations consisted of representations which each represented the structure of a simplex sentence (a "kernel sentence", cf. Chomsky (1957)). Around 1970, a comparable result was achieved by means of the condition of strictly cyclic rule application (Chomsky (1977a); cf. also Chomsky (1982: 61/62), for the essential equivalence of earlier and later theories on this point, and for further references). Other constraints that have, generally speaking, more or less the same effect in constraining 'hidden' forms, are the structure-preserving constraint (cf. Emonds (1976)), which requires that, in principle, no transformation may produce an output structure that could not have been produced independently by the phrase structure rules, and X-bar theory (cf. Chomsky (1972), Jackendoff (1977)), which does not allow categories of one type to be labelled as another type at the same time (specifically: NP's must have a nominal head, the category NP may not exhaustively dominate an S, or vice versa). Thus, representations of forms about which little or no controversy exists (i.e. 'surface forms') serve as

a 'standard' by which hidden forms are measured: the latter must somehow resemble surface forms, otherwise they are not altogether reliable as forms.

Admittedly, this practice is understandable from the linguistic point of view. Nevertheless, some principled objections have to be raised. For one thing, the whole practice is quite artificial. The necessity of this kind of constraint stems from the initial assumptions of the formal approach: that the complexity of relations between external phenomena and interpretations is attributed directly to the grammar, and especially to the compositionality of forms; that is why all kinds of things have to be stipulated explicitly, as abstract and irreducible theoretical principles, whereas the whole problem of constraining hidden forms does not arise in the alternative functional approach.

Furthermore, a certain tension, for which no principled solution is available, arises in this type of research programme between, on the one hand, the pursuit of immediate formal accounts of as many interpretive aspects as possible, and, on the other hand, the necessity to maintain some substance in the notion of linguistic form. Because of the first point, the formal linguist wants as few limitations as possible in postulating formal representations besides surface forms, but the second point precisely entails such limitations. In the next section we will have a look at some aspects of the history of generative linguistics from this point of view in some more detail, but it will already be clear that a principled choice in this dilemma is not available within the formal approach.

One way in which this tension and its consequences are manifested is that the 'scope' of explanations in the formal approach is limited in an essential way by the constraints on the use of hidden forms, and that this threatens the relevance of the entire approach. Limiting the use of hidden forms means that the description of several aspects of interpretation cannot be reduced to a description of forms; one is forced to consider certain interpretations as not (directly) formally determined. The 'remaining' formal description, and consequently the idea of innate structure, no longer offer a basis for the explanation of the connections of form and interpretation involved. Thus, in the course of the development of generative linguistics several phenomena have been excluded from the

domain of formal grammar, because keeping them within that domain had appeared to conflict with important general ideas on the way a grammar should be organized; see, for example, the history of pronominalization (Lasnik (1976), cf. Chomsky (1977b: 183)), of Equi-NP-deletion followed by "control" and "raising" (Blom (1982), Van Haaften & Pauw (1982), cf. Chomsky (1981b: 78/79)), of pseudo-clefts (cf. Blom & Daalder (1977)), of adverbial distribution (cf. Verhagen (1979)), and of several 'deletion'-type phenomena that could not be reduced to wh-movement⁸ (Neijt (1979), Van der Zee (1982)).

Now to the extent that more descriptive generalizations have to be kept outside the explanatory domain of a formal grammar in order to preserve the substantial content of the notion of linguistic form, the importance of the formal approach will decrease. For example, what is the value of a claim about richness of innate structure if the descriptive range of the claim is continuously becoming smaller? The research programme incorporating such a claim as a central issue will have continuously increasing problems in maintaining the pretension of embodying the view on the core of language. In short, it seems that the formal approach to the problem of 'form' and 'interpretation', by having to adopt constraints on the use of hidden forms if it is to lay claim to the title of science of language, in fact comes to contradict itself - not necessarily logically, of course, but programmatically.

2.4.2 A historically based criticism of generative linguistics

2.4.2.0 Introduction

As implied in the final paragraphs of the preceding section, it is characteristic of the development of generative linguistics at least since the mid-seventies that the descriptive range of the theory has decreased, which may be taken as a sign of a fundamental problem with the approach as such. We will now turn to the history of the contents (rather than the descriptive range) of some central concepts which were intended to constrain the ways different representations could be related to one sentence. This investigation will not only provide other indications for the presence of some fundamental problem, but it will ultimately also lead

to a more specific formulation of the nature of that problem.

2.4.2.1 A chronological description

1962: The Logical Basis of Linguistic Theory

In the paper he presented to the International Congress of Linguists in 1962, Chomsky formulated a general condition on the applicability of transformations, which was later to become known as the A-over-A principle. The context then was "[t]he problem of explanatory adequacy", explicated as "that of finding a principled basis for the factually correct description" (Chomsky (1964)a: 930). The description in this case concerned sentences with a preposed interrogative or relative pronoun of the following type:

- (1) Whom did Mary see walking to the railroad station?

The underlying form of this sentence - i.e. without wh-movement - is represented in a sentence like (2):

- (2) Mary saw the boy walking to the railroad station

Sentence (2) has two readings: one in which the -ing-phrase (together with the Prepositional Phrase that follows it) is taken as an adjectival modifier ("Mary saw the boy who walked to the railroad station"), and one in which the same phrase is taken as a predicative adjunct ("Mary saw the boy walk to the railroad station"). According to the traditional analysis Chomsky is following here, the first case involves one NP, containing both the boy and walking to the railroad station, while the second case involves an NP the boy and an independent complement walking to the railroad station. The difference between the two readings can thus be traced back to a difference of forms (not directly observable) in the syntactic structure.

Sentence (1), however, only has the reading with the predicative adjunct. A descriptively adequate grammar of English will have to account for this fact about wh-movement. But in order to reach explanatory adequacy, we will have to provide a principled reason for this fact. Chomsky now presents this fact as motivation for the hypothesis that NPs may not be extracted

from NPs, as part of universal grammar, i.e. as a general and necessary property of every possible grammatical system. For note that in order to get the reading of (1) with the adjectival modifier, it must be assumed that the NP which is ultimately realized as whom is preposed from within the NP properly containing it (NP walking to the railroad station). If there is a principle forbidding such extractions, this can be taken as the explanation that a reading of (1) with the -ing-complement as adjectival modifier is not possible:

This general condition, when appropriately formalized, might then be proposed as a hypothetical linguistic universal. What it asserts is that if the phrase X of category A is embedded in a larger phrase ZXW which is also of the category A, then no rule applying to the category A applies to X (but only to ZXW). (Chomsky (1964a: 931)).

It is important, in order to assess the scope of this principle correctly, to bear in mind what the context was in which this proposal was put forward, and especially what the nature of the descriptive instruments (the 'rules') was at the time. Contrary to more recent ideas, it was not assumed that the feature [+wh] was present in the base, and consequently there was not a rule of wh-movement, sensitive to this feature either; instead, an indefinite (but otherwise relatively unspecified) NP was assumed to be present in the underlying structure, which only received the feature [+wh] after preposing. Within this framework, the principle as proposed thus meant an absolute prohibition on extracting NPs from NPs, although precisely the same formulation would have far less radical consequences in another framework (for example, the present one).⁹ If seen in the right context, the cited phrases present a rather strong position for autonomy: the grammatical possibilities of nominal elements within another NP are completely determined by the nature of this containing NP, for no rule of grammar can relate them to elements outside this NP; in other words: the NP-boundary is not transparent.

1964: Current Issues

However, in a revised version of the same story, which was published two years later under the title Current Issues in Linguistic Theory, the idea of autonomy completely vanished. Instead, the process of moving a wh-phrase could in principle apply freely, though there were some rule-specific

limitations. Consider the following:

Once again, to achieve the level of explanatory adequacy, we must find a principled basis, a general condition on the structure of any grammar, that will require that in the case of English the rule [wh-movement] must be so constrained. Various suggestions come to mind, but I am unable to formulate a general condition that seems to me entirely satisfying. (Chomsky (1964b: 45)).

At the end of Chomsky's discussion of the phenomena involved, we now only find a footnote (no. 10), where the possibility which was raised two years before as being "natural" is now raised and rejected; it reads:

Alternatively, one might attempt to account for this distinction by a condition that relies on the fact that in the illegitimate case the Noun Phrase to be preposed is contained within a Noun Phrase, while in the legitimate case, it is not. However, the condition that a Noun Phrase contained within a Noun Phrase is not subject to [wh-movement], though quite plausible and suggested by many examples, is apparently somewhat too strong, as we can see from such, to be sure, rather marginal examples as "who would you approve of my seeing?", "what are you uncertain about giving to John?", "what would you be surprised by his reading?", etc. There is certainly much more to be said about this matter. (Chomsky (1964b: 46)).

1965: Aspects

Aspects does not contain discussions of phenomena and/or principles related to A-over-A, as far as I can see.¹⁰ However, it does contain a specific prohibition against processes crossing a clause boundary (an S-node), in part to compensate for the abandonment of generalizing (embedding) transformations and for the introduction of recursion into the base: in the former theory, there was never more than one S-node present in a structure submitted to a transformation (i.e. a non-generalizing transformation), and consequently these transformations could not cross clause boundaries. With recursion of S in the base, however, several S-nodes are already present in deep structure, so that there at least is a risk of 'too much' unwanted crossing of boundaries (cf. Chomsky (1982: 62)). The principle proposed to remedy this (at least partly) is the so-called Insertion Prohibition Principle:

The reflexivization rule does not apply to a repeated N dominated by an occurrence of S that does not dominate the "antecedent" occurrence of N. This particular remark about English is, apparently, a consequence of a more general condition on transformations, namely that no morphological material (in this case, self) can be introduced into a configuration dominated by S once the cycle of transformational rules has already completed its application to this configuration (though items can still be extracted from this constituent of a larger "matrix structure," in the next cycle of transformational rules). (Chomsky (1965: 146)).

In this view, S-domains are - in a very literal sense - relatively autonomous; depending on the type of operation involved (extraction or insertion), a clausal boundary may or may not be crossed: once an S has been dealt with by the transformations, it cannot be changed anymore, except by means of extraction. ¹¹

1967: Language and Mind

In 1967, Chomsky presented the lectures that were published a year later under the title Language and Mind. Here it was declared again that the approach of 1962 seemed to be the "most promising" one, in retrospect (Chomsky (1968: 56, note 21)), so we find the A-over-A principle back again, presented explicitly as the prohibition to extract NPs from NPs:

Suppose we were to impose on grammatical transformations the condition that no noun phrase can be extracted from within another noun phrase - more generally, that if a transformation applies to a structure of the form

$$[_S \dots [_A \dots]_A \dots]_S$$

for any category A, then it must be so interpreted as to apply to the maximal phrase of type A [...]. (Chomsky (1968: 43)).

Chomsky adds the following in a footnote:

We might extend this principle to the effect that this transformation must also apply to the minimal phrase of the type S (sentence). Thus, the sentence

$$[_S \text{John was convinced that } [_S \text{Bill would leave before dark}]_S]_S$$

can be transformed to "John was convinced that before dark Bill would leave," but not to "before dark John was convinced that Bill would leave," which must have a different source.

Like the original principle, this extension is not without its problems, but it has a certain amount of support nevertheless. (Chomsky (1968: 56, note 23)).

Adopting this suggestion would mean that transformational rules would have to operate on maximal constituents on the one hand, and on minimal S-domains on the other. Thus, grammatical processes would practically be limited to complete sentence elements (constituents) within the clauses in which their grammatical relations were defined, and this would be formulated in one principle. This is the strongest formulation of the idea of autonomy in Chomsky's work, as far as I can judge -- it has never risen above the footnote stage.

Exceptions to the A-over-A Principle that led to its rejection in 1964 ("who would you approve of my seeing?") are now being described in terms of special rules assigning transparency-properties to certain types of NPs (1968: 45-46). Thus, it seems that the position of Language and Mind may be summarized as follows: autonomy is the rule, transparency is the exception. However, at the very end of the text on A-over-A, Chomsky makes a considerable retreat from this position, and consequently from his initial assertion that the 1962-approach was the most promising one. First it is said that in view of the facts as presented, a descriptively adequate alternative would be to consider transparency as the normal situation and to assign non-transparency to certain NPs with the help of specific rules where necessary. This alternative would not be Chomsky's first choice, "precisely because the A-over-A principle has a certain naturalness, whereas the alternative is entirely ad hoc, a listing of nontransparent structures" (1968: 46). However, Chomsky immediately adds that "there is crucial evidence, pointed out by John Ross [...], suggesting that the A-over-A principle is not correct" (p. 46). And the exposition on A-over-A is concluded as follows: "Perhaps this indicates that the approach through the A-over-A principle is incorrect, leaving us for the moment with only a collection of structures in which extraction is, for some reason, impossible" (1968: 47). But apart from this final part, which leaves all options completely open again, the greater part of this text can be said to express mainly the idea of autonomy of constituents.

1970: Conditions

This is not the case with Conditions on Transformations (1970). In this paper, Chomsky retreats again from the idea of autonomy which is contained in A-over-A. The first sign of this is the replacement of the absolute interpretation of A-over-A with a relative one (cf. the discussion of 1962 above, in particular the comments on footnote 23). Chomsky uses the formulation from 1967 cited above (starting at "if a transformation applies to a structure..."), but now he adds the following comments:

Notice that the condition [...] does not establish an absolute prohibition against transformations that extract a phrase of type A from a more inclusive phrase of type A. Rather, it states that if a transformational rule is nonspecific with respect to the configuration defined, it will be interpreted in such a way as to satisfy the condition. [...] Alternatively, one might interpret the A-over-A constraint as legislating against any rule that extracts a phrase of type A from a more inclusive phrase A. (Chomsky (1977a: 85)).

The latter interpretation had previously, especially in 1967, been the intended one, but in 1970 the former is called "perhaps more natural", and it is the one which is used from then on: "the A-over-A Condition as interpreted here does not prevent the application of wh-Movement to form (Who would you approve of my seeing) from (You would approve of [my seeing who])" (Chomsky (1977a: 85/6)). What was at first a counter-example is now turned into an illustration of the same - but weakened! - principle.

The second way in which the distance to the original conception of A-over-A is increased is more implicit: the descriptive domain covered by the principle is considerably reduced because subordinate clauses are no longer assigned the status of an NP in the matrix clause; up till 1970, specifically in 1967, some impossible extractions of NPs from Ss could be analyzed as instances of violations of A-over-A, precisely because the embedded Ss were described as expansions of the category NP (and so that the impossible extractions were seen as involving extractions of NP from NP, violating A-over-A). But as a consequence of the development of the so-called lexicalist hypothesis on nominalization (cf. Chomsky (1972)), this position had become untenable: categories could no longer be expanded as any other arbitrary category, since at least the major syntactic categories were now all regarded as projections of a lexical category,

representing the head of the dominating category. Until 1970, then, we had a reasonably generalizing condition against extractions both from clauses and ('true') NPs, but then we were presented with a more disparate system: the insertion prohibition principle from Aspects (in Conditions: the principle of the strict cycle) for Ss, and the A-over-A principle for NPs.

Perhaps this is part of the reason for the set of new conditions that is introduced in this paper: they are to a certain extent part of a project to restore, as it were, the generalizations over NPs and Ss (taken together as "cyclic categories") at the level of universal conditions on rules of grammar.¹² Two major new conditions are the Specified Subject and Tensed-S Conditions, which assert that no grammatical relation is possible across the boundary of a cyclic category if the rule creating the relation would have to operate across a specified subject of that category, or if it crosses the boundary of a finite S, if the cyclic category is a so-called S-bar: the distinction between S ("S-reduced") and S-bar is the distinction between a clause excluding its introductory element, and including it, respectively, and it allows for certain relaxations in the effect of the conditions (see below). According to both conditions, a category is not to be regarded as autonomous because of what it is as a category (not as an S, or an NP), but at least one additional requirement must be met for extraction to be blocked: the presence of an intervening specified subject or tensed-S boundary. The distinction between S-bar as the cyclic category and S as the relevant boundary for tense furthermore allows for wh-movement from clauses to systematically escape the effect of the conditions: movement to the initial COMP-position of a clause does not cross a cyclic boundary (though it does cross a tensed S boundary and a specified subject) and subsequent extraction out of this position does cross a cyclic boundary, but 'no longer' across the subject or the tensed S boundary of this cyclic category; thus, constructions of the type "What do you think he is doing?" are considered as manifestations of a systematically possible case of extraction from a clause.

Another important condition introduced here, the so-called Subjacency Condition, states that movement may not take place over more than one cyclic boundary at a time, and therefore does not impose autonomy either: for one thing, because the condition is restricted to one type of rules (movement), and secondly, of course, because the condition explicitly

allows movement over one cyclic boundary (which may, by means of repetition, result in a phrase ultimately being realized in a 'surface' position which is several cyclic categories from its 'original' position).

In view of all this, it is hardly surprising to find an explicit rejection of the idea of the autonomy of clauses in Conditions:

It would be highly undesirable to extend the general theory of transformations so as to permit transformations to be restricted to a single clause, and so far as I can see, there are no strong empirical reasons motivating such an elaboration of the theory, given the general framework that we are exploring here. (Chomsky (1977a: 115)).

In 1970, clause boundedness could not, in Chomsky's view, appear as something else than a specific property of a certain subset of rules; it was simply not considered a possibility that clause boundedness might be the general case. If we make this explicit, we can see that the argument in fact runs as follows: if clause boundedness occurs at all, it is a priori clear that it is not general, hence allowing it - for a subset of rules - would mean an undesirable extension of the theory: the class of possible grammars would be extended, for both clause bound and non-clause bound rules will be permitted. Thus the possibility of the position that 'autonomy is the rule, transparency is the exception' is not even mentioned in something like these terms, though it had been defended only three years before.

The seventies: trace theory

With the development of the so-called trace theory, the distance to the idea of autonomy, observable in Conditions, increased and decreased at the same time. Firstly, the distance decreased because of a shift in the content of the notion "specified subject", which is perhaps represented most succinctly as: from 'phonetically specified' to 'semantically specified'; NPs lacking phonetic content (PRO, trace), but nevertheless assumed to be there and manifesting themselves in the interpretation of the sentence, also became instances of 'specified subjects', thus functioning as blocking factors in terms of the relevant condition. In that way, at least clauses were in fact asserted to be autonomous because of their categorial status, since clauses of all types were analyzed as having a

subject, sometimes phonetically empty, as in the case of infinitival clauses.

On the other hand, the distance to the autonomy idea also increased in this same period, as a consequence of the unification of the theory of transformations and the theory of rules of interpretation, which unification was made possible by the introduction of the empty elements PRO and trace. The point is the following. The effect of a condition on transformations can also be achieved by a condition on an assumed relation between a constituent and its trace, i.e. the empty category in its original position. If we consider such a relation to be anaphoric in nature (the reference of the trace being determined by the reference of the antecedent), then conditions on interpretation and conditions on transformations can be unified: there are in fact only conditions on anaphora. But this step, which constitutes the core of trace theory, restricts the scope of the conditions in the area of transformations to rules which result in a configuration that can plausibly be represented as one involving anaphora. Conceptually, formulating conditions on grammatical relations as conditions on anaphora cannot be said to express grammatical autonomy of clauses and NPs as such, but only for a specific type of phenomena.

However, the answer to the question how serious this conceptual limitation ultimately turns out to be also depends on the question to what degree transformational processes can be presented as creating a configuration of anaphora; at first sight, only relations so far described in terms of movement rules could be reinterpreted that way. Processes described with deletion rules do not create a relation between two positions, so if the conditions on grammatical processes are viewed as actually only conditions on anaphora, they would no longer be able to account for so-called deletion phenomena, which could result in the loss of important generalizations.¹³ Chomsky (1977c), however, has undertaken the task of re-analyzing such deletion phenomena as the result of two different processes, one involving movement, which creates the required anaphoric configuration, and one involving deletion of the moved element in its 'surface' position. Applying such a strategy to several different phenomena would make it possible in principle to bring more under the scope of conditions on anaphora than what one might think of at first sight,¹⁴ as well as under the scope of the

Subjacency Condition, which applies specifically to movement rules.

1978: On Binding

In On Binding, the distance to the idea of autonomy is again maximal in all respects. The Tensed-S Condition is abandoned in favour of a principle which only applies to subjects: the Nominative Island Condition, which states that a nominative anaphor cannot be free in S-bar (cf. Chomsky (1980a: 36)). Subjects of finite clauses are assumed to have (abstract) case, called nominative, thus they cannot be anaphoric without an antecedent being available within the same S-bar: the only possible structural position for an antecedent of a subject within the same S-bar is COMP, where only wh-phrases can be moved to; this is to account for the fact that the subject of a tensed clause can be questioned (in terms of trace theory: that the structural position of subject can contain an anaphor), while it cannot be a lexical anaphor. Since subjects of infinitival clauses are assumed not to have case, they may be anaphoric without an antecedent being required within the same clause; in other words, subjects of infinitives may be anaphors with antecedents outside their own clause. This is to account, first of all, for the phenomenon of 'control': the subject of the most common type of infinitive is assumed to have the status of an empty anaphor, with an antecedent in the matrix clause; secondly, it is also to account for the possibility of 'Passive', 'Raising', and the appearance of lexical anaphors in the position of the subjects of certain restricted classes of infinitives (we will return to these issues in the next section); thus, nothing essential is changed in the generalizations that formerly were accounted for in terms of the Tensed-S Condition, but the conceptual nature of the explanation is actually modified rather drastically. It is a consequence of the proposal in On Binding, that the ungrammaticality of (3) is totally unrelated to the ungrammaticality of (4):

- (3) *They₁ wish that Peter would describe each other₁
- (4) *They₁ wish that each other₁ would get a present

The first sentence is excluded because of the specified subject Peter blocking the rule of anaphora, the second because of the nominative case of the anaphor each other; the fact that in both cases the anaphoric

relationship is to be construed over the 'same' clause boundary is a pure coincidence according to this conception of constraints on grammatical processes: the role of the clausal boundary in itself is practically nil.¹⁵

1979: Pisa

The lectures presented by Chomsky in Pisa in 1979 already contained a certain reaction to this extreme conception of transparency. According to the Pisa theory, anaphors must be bound within the minimal S or NP containing a so-called governor of the anaphor, and as a consequence, both subject and object anaphors without antecedents in finite clauses are again prohibited for one reason: the minimal finite clause containing an anaphoric subject or object NP is called its "governing category" (cf. the discussion in the next section), and the theory stipulates that an anaphor must be bound in its governing category. On the other hand, however, the scope of this so-called binding theory is restricted further, because of a new limitation of the applicability of the notion "anaphor"; PRO (the empty subject of infinitives) and the trace of wh-movement no longer fall under the concept of anaphor, so that 'governing categories' are not presented as autonomous with respect to grammatical processes in general, but only with respect to a specific type of such processes (cf. the discussion on trace theory above): lexical anaphors and NP-movement (specifically Raising).

It remains true, nevertheless, that the Pisa theory embodies a stronger conception of autonomy than On Binding. This can be illustrated by the way anaphors within NPs are treated. Consider sentence (5):

- (5) Both participants in the discussion₁ admitted that the interest in each other₁ had been too small in the past

According to the Pisa theory, the NP the interest in each other is the governing category for the anaphor each other, so that the latter should find its antecedent within the former. This restriction is clearly stronger than the one imposed by the previous theory, and in some sense it is a return to an earlier position. In the Conditions framework, sentence (5) poses a problem, because the anaphoric relationship (as indicated by the indexes), appears to cross a finite clause boundary; in On Binding, the same sentence is completely unexceptional: each other does not have

nominative case and there is no intervening specified subject (precisely because the anaphor is contained in the subject of the clause). The Pisa theory in principle imposes an even stronger restriction than Conditions, since it is the subject NP within the subordinate clause that is designated as governing category rather than the clause itself, so that the subject would have to contain an antecedent for each other.

This does not seem to be a correct analysis, however, in view of the grammaticality of (5). Therefore Chomsky proposed, in 1979, that this be seen as a true exception, governed by a separate rule in the grammar of English, which had to be learned as such (cf. the "(marked) principle for English grammar" (30) in Chomsky (1981a: 143)). This idea involved a distinction between 'core' and 'periphery' in grammar: a certain relaxation of general conditions for the use of the reciprocal element is allowed as a peripheral phenomenon, while the 'core' of the grammar, determined by universal principles, still contains the more restrictive binding theory in an unaffected form.

1981: Lectures on Government and Binding

This is different in the version of the theory which was published in 1981. The exception, illustrated in (5), is again made into an instance of the general principle, but at the cost of the restrictiveness of this principle; in other words, it is a step which is in a sense analogous to the one in Conditions, which involved the A-over-A principle (cf. the discussion above). In this case, an extra requirement is incorporated into the binding theory: in order for a category to be designated as the governing category for an anaphor, it must also contain a so-called SUBJECT, "accessible" for the anaphor (cf. also Chomsky (1982: 109/10)). In order to see what is involved, some more detail of the theory must be added to the general picture.

The notion SUBJECT refers to what may be vaguely indicated as 'the structurally most prominent element relating to some entity' (Chomsky (1981b: 209): "the 'most prominent nominal element' in some sense"). In finite clauses this element is the complex of person and number features (called AGR), accompanying the feature [+Tense] within the bigger complex of features determining the type of the clause (this is called INFL, and

besides AGR, it contains features for finiteness and modality). Thus what is meant is that the finite verb is to be viewed as the most prominent element relating to an entity, because it expresses information on the number and (grammatical) person of the referent of the subject NP, and thus may be called the SUBJECT. In all other constructions, specifically infinitives and NPs, the notion SUBJECT coincides with the usual notion subject, because there is no feature [+Tense], which is a prerequisite for the occurrence of AGR.

Now, the requirement that a governing category must contain a SUBJECT in effect means the reintroduction of the Specified Subject Condition for NPs in the 'core' of the theory: an anaphor contained within an NP only has to have an antecedent within the same NP if this NP contains a subject; otherwise it does not qualify as a governing category. Thus, the theory is already weakened again: the NP boundary does not in itself constitute a blockade, but it is only made into one by a subject, if present.

In finite clauses, the property of 'accessibility' is crucial. This is defined in such a way that, if an element X is co-indexed with an element Y, Y is not accessible for any element Z contained in X, but only for X itself and elements outside of X (in as far as they are not 'lower' in the tree than Y). Schematically:

- (6) In the structure ... Y ... [_X ... Z ...] ... Y ... ,
Y is accessible for Z, unless X and Y are co-indexed. ¹⁶

It is assumed now that, for reasons of agreement, the subject NP and AGR, i.e., the SUBJECT, are co-indexed in finite clauses. According to the definition in (6), this implies that the SUBJECT is inaccessible for an anaphor contained in the subject NP. Consider structure (6)':

- (6)' [_S ... [_{NP₁ (=X)} .. each other ..] ... AGR₁ (=Y) ...]

The S in (6)' does contain a SUBJECT, but this SUBJECT is not accessible for the anaphor, because the NP containing the anaphor is co-indexed with the SUBJECT, and necessarily so, because this is simply the representation of agreement. Therefore, the S is not a governing category for the anaphor, and this holds generally: an S is never the governing category for any

anaphor contained in its subject NP. The requirement that the category within which an anaphor must find its antecedent contains a SUBJECT accessible for the anaphor means that anaphors contained in the subject-NP of finite clauses do not even have to be bound within their minimal S: ¹⁷ in that case, the SUBJECT is not accessible for the anaphor. Thus, sentence (5) is simply allowed; what was an exception in Pisa, has again become a case of the binding principles themselves. However, these have been seriously weakened. What it comes down to is that the content of the On Binding theory, specifically the Nominative Island Condition, is in fact built into the 'new' theory by means of definitions: the subject of a finite S may not itself be an anaphor without an antecedent in its clause, but it may contain an anaphor without an antecedent in S. ¹⁸

The very reintroduction of old principles also leads to redundancy appearing on the stage again, an aspect of the theory which was continuously presented as an objection to the system of Conditions during the seventies. For we now end up with a situation in which a category X, in order to count as a governing category for an anaphor, does not only have to contain the governor of the anaphor, but also an accessible SUBJECT. Chomsky shows that this second requirement implies the first one in all but one type of construction; thus, the first requirement is made largely superfluous. But because of the one construction for which it is not, it cannot be eliminated. The exposition of the binding theory in 1981 then terminates in a tone which is rather similar to the one which concluded the discussion of A-over-A in 1967 (see above):

It therefore appears to be necessary to introduce a crucial reference to government in the binding theory [...], though its effects are so narrow as to suggest that an error may be lurking somewhere. (Chomsky (1981b: 221)).

2.4.2.2 Diagnosis

The general pattern should be clear: for over 20 years there has been a constant coming and going between the idea of autonomy and the idea of transparency of clauses and noun phrases, without a really clear choice being made at any time. On the contrary, the best way to characterize this 'development' is to say that continuously no choice is made. Thus in this respect there is actually no 'development' in generative linguistics at

all. All different versions of the theory of conditions are but variants of the same theme: the pursuit of one set of conditions at the same time closing off clauses and noun phrases from most grammatical operations from outside, but not really from all of them.

What might be the source of this contradictory task of the conditions in the generative research programme? I will argue that it is to be traced back to the inherent dilemma in the formal approach, outlined in 2.4.1. In order to do so, we will first have a closer look at the analysis of infinitival clauses and then at noun phrases. I will limit the discussion to anaphora (as a clear case of assumed relatedness of two positions)¹⁹ and to the relatively simple version of the binding theory of Chomsky (1981b): the reconstruction to follow is of an exemplary nature and the reader may easily reconstruct the same argument in other, specifically earlier, frameworks for himself.

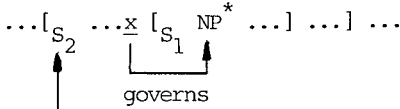
Let us first try to pin down more precisely in what sense the conditions do 'not really completely' close off a clause for external operations. Principle A of the so-called binding theory essentially says the following (cf. Chomsky (1981b: 187/188)):

- (7) An anaphor must have an antecedent within the minimal constituent X having the following three properties:
 - (a) it is of the category S or NP,
 - (b) it contains the anaphor,
 - (c) it contains a governor of the anaphor.

Without the requirement of property (c) the binding theory would, of course, simply state complete autonomy of clauses with respect to anaphora. But now there are two 'theoretical' possibilities for an anaphor not requiring an antecedent within its minimal S: if there is no governor of the anaphor at all, or if the governor is not contained in the minimal S containing the anaphor:

- (8) transparency option I: there is no governor of the anaphor, the anaphor is "ungoverned"; then there is no constituent X with property (c), and therefore the anaphor does not require an antecedent in any category;
transparency option II: the governor of the anaphor is not contained in the minimal S containing the anaphor, but - given the requirement that government is 'local' - in the second higher S with respect to the anaphor; then the anaphor does

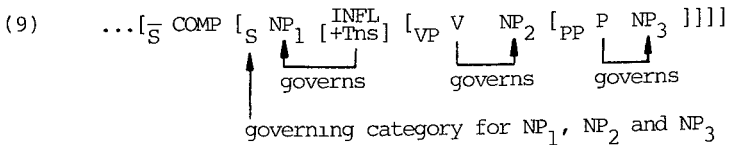
not require an antecedent within its own clause, but it does require one within the minimal S of the governor: this second higher S is the minimal constituent having all three properties listed in (7). Thus:



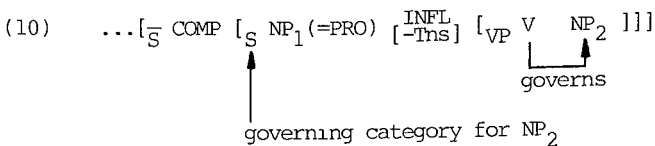
minimal S having properties (a), (b) and (c) with respect to NP^* , therefore the "governing category" for NP^* .

How are these options related to descriptive practice? As far as object noun phrases are concerned, both are excluded: they are always governed, by a verb or by a preposition, which is always contained within the same minimal clause containing the NPs. Thus this theory entails the effects of the former Specified Subject Condition.²⁰ That leaves subject noun phrases to be considered.

In finite clauses, the subject is also always governed within its minimal S, by the Inflection node which contains the feature [+Tense]. Thus the situation in finite clauses, for all kinds of NPs, can be represented schematically as follows:



But in infinite clauses things work out in a systematically different way. It is stipulated that INFL is not a possible governor if it does not contain the feature [+Tense]; then we will primarily have a case of option I (see (8)). Schematically:



The subject NP is ungoverned and may therefore be an anaphor, without an antecedent in S. This is the way PRO-subjects in so-called control infinitives are accounted for:

- (11) John persuaded him₁ [_S PRO₁ to stay at home]

In some cases, the COMP-position of S-bar may contain a possible governor for the subject NP. Then we will have one case of option II: the governor is outside the minimal S containing the anaphor (notice that principle A as formulated in (7) requires X to be an S, not an S-bar), which has consequences for the domain in which the antecedent must be found; schematically:

- (12) [_S₂ ... [_S₁ [_{COMP} for] [_S₁ NP₁ [_{INFL} [-Tns] VP]]]
- ↑
governing category for NP₁
- ↑
governs

This is the way so-called for-infinitives in English are accounted for:

- (13) They₁ want very much [_S for [_S each other₁ to win]]

Still another possibility is that the matrix verb governs the embedded subject, for it is assumed that certain verbs trigger deletion of the S-bar node of the embedded clause, thus deleting the "absolute barrier" for government constituted by such a node. Then we will have another case of option II:

- (14) [_S₂ ... V [_S₁ NP₁ [_{INFL} [-Tns] VP]]]
- ↑
governing category for NP₁
- ↑
governs

This is the structure attributed to so-called Raising-infinitives, where NP₁ in (14) is an empty anaphor (a trace of NP-movement), and to A.C.I. constructions (involving an 'accusative' object functioning as the subject of an infinitive); examples are given in (15) and (16), respectively:

(15) John₁ seems [_S [_{NP}₁ e] to be incompetent]

(16) John₁ believes [_S himself₁ to be incompetent]

Thus, the binding theory also entails the effects of the former Tensed-S Condition.

It is clearly the analysis of infinitival constructions which gives rise to the impossibility of presenting clauses as non-transparent as such. So the next question naturally is: why are infinitives analyzed the way they are? The answer has to do with the view of the relation between grammatical structure - an aspect of the form of sentences - and the assignment of semantic roles, so-called θ -roles (from "thematic roles") - an aspect of the interpretation of sentences. As Chomsky (1981c: 12) has pointed out, it has been assumed since the earliest work on generative grammars that semantic roles of NPs are determined on the basis of the grammatical functions of the NPs, which are defined structurally; for example, we have, in the well known notation from *Aspects*, [NP,S] ("NP immediately dominated by S") for subject-of-S, and [NP,VP] ("NP immediately dominated by VP") for direct-object-of-VP. Thus the structural relations, specifically those in D-structure, determine semantic roles such as Agent, Location, and the like, in co-operation with the verb, and sometimes other elements together with the verb: it is the structural position of an NP with respect to a certain predicate which determines its semantic role, which means that every role associated with a predicate is related to a constant and unique structural position.²¹ Thus the semantic nature, the substance of a specific role is of no practical or principled interest in a description: it can be identified as the role associated with a certain structural position with respect to a certain predicate; its identity is guaranteed without any reference to its semantic content.²² So we have here a clear case of the general pattern described in 2.4.1: the interpretation of semantic roles is seen as something to be accounted for in the grammar, which means, given the formal approach, that it must be reduced to the description of some aspect of form. Clearly, such a reduction cannot be said to be truly successful if it could not be effected completely, i.e. if the same formal description would not necessarily correspond to the same distribution of semantic roles. This is what causes infinitives to be analyzed the way they are. Take the case of the matrix verb believe, for

example, i.e. the A.C.I. constructions. Suppose, for the sake of the argument, that the direct object position with the verb believe determines that the semantic role of a constituent filling that position is SOURCE with respect to this verb. It is realized in a simple way in such sentences as (17):

- (17)a I don't believe his explanation
 b John always believed Bill

Now consider (18), with an infinitival complement:

- (18) John believed Bill to be incompetent

Whatever the precise nature of the semantic role SOURCE, it seems clear that the role fulfilled by Bill in (17)b is not fulfilled by Bill in (18), but rather by the string Bill to be incompetent; furthermore, Bill in (18) is not only not SOURCE with respect to believe, it also is, say, THEME, with respect to the predicate to be incompetent, which role must be assumed to be determined by the subject position with respect to be incompetent. If these interpretive factors are to be directly accounted for in terms of formal structure, it is clear that the structure can only be as in (19) (assuming that to is an infinitive marker at S-level, say in the same position as auxiliaries in finite clauses):

- (19) John believed [_S Bill to [_{VP} be incompetent]]

As we have seen, a reflexive pronoun may occur in the position of Bill in (19), with a matrix NP as its antecedent (cf. (16)).

Similar considerations apply to the other type of infinitival construction. For example, him in (20) does play the same role with respect to persuade (say, GOAL) as in the simplex sentence (21):

- (20) John persuaded him to stay at home
 (21) John persuaded him

Therefore, the structural position of him must be the same in the D-structure of (20) as in the D-structure of (21), so it cannot be in the

position of the subject with respect to stay at home. On the other hand, this predicate must have a subject, because the θ -role associated with it is present in the interpretation of (20), so the structural position will have to be filled by a noun phrase, apparently phonologically empty. Thus, (20) must have the structure (11), as given above.

What we have then is that the two assumptions -- 1) that semantic roles are structurally determined and 2) that anaphora is structurally determined too -- together lead to the consequence that clauses cannot be totally autonomous. But on the other hand it is clear that actual transparency is in fact quite limited, and in systematic ways, so that a general system of constraints on the way clauses may be treated in grammatical descriptions must in fact meet conflicting conditions: we have arrived at the source of the continuing 'tension' in the history of the theories of these constraints which was observed above. A system meeting conflicting conditions can hardly fail to be complex, and thus the theory produces its own background assumption: that the grammar, somehow present in the mind of mature native speakers, is a system of such complexity that an intricate innate schematism must be assumed in order to explain the possibility of its acquisition. One way out of the dilemma, in this case, would be to drop the assumption that the interpretation of the kind of semantic roles envisaged in these descriptions is reducible to unique structural positions.²³ But this would contradict a fundamental claim of the generative research programme, as argued above.

Before leaving this topic and concluding this chapter, we will look at one other piece of evidence for the diagnosis presented here, the treatment of anaphora within noun phrases. Unlike the situation in clauses, the question of the transparency or autonomy of NPs is not limited to constituents functioning as subjects of the NPs. Recall the following example from 2.4.2.1 (the discussion of the Pisa-theory in 1979):

- (22) Both participants in the discussion₁ admitted that the interest in each other₁ had been too small in the past

Recall that the version of the binding theory presented above (cf. (7)) involves both S and NP: the first requirement for X to be a governing category is that X "is of the category S or NP", so NPs are possible governing categories too. In this conception, the minimal governing

category for the anaphor each other in (22) is the subject noun phrase of the subordinate clause: the minimal constituent which is an S or an NP containing the anaphor and a governor of the anaphor is the NP the interest in each other, the preposition in being the governor of the anaphor. Thus the theory would require the presence of an antecedent within this NP, i.e. the NP is declared non-transparent for anaphora. We have seen in 2.4.2.1 that this was the main reason why, in 1981, the binding theory was complicated and weakened through the introduction of the notion "accessible SUBJECT". But the question is whether the observation is correct that (22) is a case of a possible antecedent-anaphor relation over both an S and an NP-boundary. It seems crucial, after some consideration, that each other is understood as relating to the entities from which the interest involved originates. It is a matter of naturalness, not necessity, that those entities are interpreted as being identical to the referents of the subject of the matrix clause (the participants in the discussion); consider the interpretation of the following sentence:

- (23) The chairman contended that the interest in each other had been too small in the past

In general, if the meaning of the head noun of an NP suggests the notion of some entity as a determining factor for the occurrence of a referent of the NP, then this understood entity determines the possible interpretations of anaphors within the NP.²⁴ Consider the following sentences:

- (24) These statements about each other₁ did a lot of harm to the ministers₁
- (25) These statements about them₁ did a lot of harm to the ministers₁

At first sight, these sentences seem to constitute counter-evidence to the generalization that anaphors and personal pronouns are in complementary distribution, i.e. that where an anaphor is coreferential with some NP, a pronoun is disjoint in reference with that NP. However, there is a crucial difference of interpretation between (24) and (25). In (25), assuming coreference as indicated, the ministers are definitely not the ones who produced the statements involved, but in (24) they necessarily are. In other words, the anaphor each other is obligatorily related to the entities

responsible for the statements (in this case, probably the ministers), and the pronoun them is obligatorily not related to the entities (or entity) responsible for the statements (so only if someone other than the ministers is responsible for the statements, may the pronoun refer to the ministers).

Thus it seems that the interpretation of anaphors is completely determined within NPs after all. Given the descriptive practices in the case of infinitives, it might seem natural to propose the presence of an empty subject within NPs in order to account for this.²⁵ But this is excluded for reasons concerning the theory of the distribution of empty elements, the general idea being that they are essentially in complementary distribution with lexical NPs: empty NPs occur either in a necessarily ungoverned position (the subject position of infinitives, the exceptions being completely conditioned by factors external to the infinitive) where no lexical NPs may ever occur, or in a position 'vacated' by a lexical NP, which may, of course, in principle be lexically filled, but not once an NP has been moved from it. The actual mechanisms of the theory need not concern us here. The point is that the 'subject position' within noun phrases does not fit this pattern: first, it is not necessarily empty; second, when it is filled it is not because of external factors, and when it is empty it is not because of movement. As for clauses, it is in principle possible to hypothesize that they always have a structural subject, sometimes necessarily empty for specific reasons, otherwise necessarily lexical. But such a hypothesis is impossible for NPs. Thus it has to be assumed that the appearance of subjects within NPs reflects a true structural option: if a lexical subject is missing, there is no structural subject either.²⁶

The immediate consequence is that no structural antecedent can be found within an NP containing an anaphor. So it has to be assumed that a structural antecedent may be present outside the NP containing the anaphor, thus denying autonomy of the NP, if the assumption is maintained that the interpretation of antecedent-anaphor relations should be reducible to formal representations (say, as configurations of indices in a phrase marker).

The alternative is, of course, that we abandon the attempts for a purely structural account of anaphora, in order to be able to describe it as

essentially determined within the boundaries of a containing NP. But then the question of the substance, the content of the antecedent - anaphor relation has to be faced again in full, because it can no longer be taken as "coreference of two NPs", there being no antecedent NP for some anaphors: in (22) and in (24), there are NPs coreferential with the anaphors, but they are not antecedents, and in (23) there is not even a coreferential NP. In other words, it is the notion of coreference which allowed for the reduction of the description of anaphora to a purely formal one (in terms of indices on NP-nodes in a phrase marker), and as this reduction is not possible, the conclusion must be that the 'superficial' notion of coreference cannot constitute the content of the grammatical phenomenon of anaphora, and that the question what this content is is not only still legitimate, but a necessary one in actual grammatical investigation.²⁷ And once more, the conclusion that this aspect of the content of linguistic expressions is not reducible to some formal aspect contradicts a fundamental claim of the generative research programme, just as was the case with the conclusion that the interpretation of semantic roles is not reducible to form, as was argued above.

2.5 Conclusion

It should be noted that it has been the general tendency of this chapter, naturally, to be negative. We have established a general, abstract distinction between two views on the nature of central and interrelated problems of linguistics: how external phenomena (of sound and writing) relate to aspects of interpretation, what constitutes the skill of knowing a language and knowing how to use it, and under what assumptions this skill can be considered learnable. What has been called the functional view essentially holds the following: form classes are constituted on the basis of unity of meaning, so the system of relations of form and meaning is essentially simple; the meanings must generally serve useful communicative functions, there being no other reasonable grounds for a linguistic community to maintain the categories of its language. The meanings must also be rather abstract in order for them to be learned and to serve their purpose: providing simple signs, with the help of which complex messages may be built. Thus the actual use of language involves an inferential process, sometimes quite complex, such that concrete interpretations of

utterances are established by combining grammatical meanings, lexical meanings, general and specific knowledge of the world and the context, and general and specific values and interests of speakers and hearers as human beings and in more specific roles. These processes of inference may lead to quite different concrete interpretations of utterances involving the same linguistic sign, from one occasion to another; and indeed one should hardly expect otherwise.

What has been called the formal view, on the other hand, essentially holds the following: the system of relations of form and meaning is essentially complex, in that there is generally no one-to-one correspondence between form classes and meaning. So form classes are autonomous and have to be learned ('acquired') on the basis of an intricate innate schematism. The meanings need not be very abstract, precisely because the complexity assumption is constituted by the idea that many concrete aspects of interpretation are direct manifestations of the meaning of some category. Without further qualifications, however, this complexity assumption threatens the status of the formal approach as a programme in linguistics, for it might seem that, ultimately, any form can have any meaning. But any approach to linguistics tries to establish systematic relations between 'form' and 'interpretation': not all arbitrary sets of concepts are equally relevant from a linguistic point of view, but especially those are which are somehow 'fixed' in the system of forms of a language, and which are therefore called "meanings". Now, in order to avoid the consequence of complete arbitrariness in the relations between forms and meanings, the formal approach assumes the possible existence of several forms for one 'surface' phenomenon, such that there is indeed some systematics in relations between form and meaning, on each separate 'level of representation'. In short, the formal approach faces the possible objection that it presents relations between 'form' and 'meaning' as arbitrary, and it answers this objection with the idea that this is only apparent, since one should not only consider the 'surface' form of a linguistic expression, but also its 'deep structure' and other 'levels of representation'; thus, the observed complexity of relations between external phenomena and interpretive aspects is viewed as resulting from an assumed compositionality of form. Compared to the functional view, the actual use of language is seen as a much more simple process, involving several (essentially non-violable) rules and constraints which to a large extent

determine the ultimate form of an utterance, in the sense that a speaker does not freely combine distinct signs in an utterance, but several grammatical elements are necessarily present and others are necessarily absent.

Now the discussion so far, especially in 2.3 and 2.4, has been 'negative' in that we have not yet provided positive arguments for the functional view (which should consist in insightful descriptions based on these ideas), but we have mainly been arguing against the formal approach. We have argued that the formal approach results in an improper reductionism. This reductionism has two related aspects: the effort to reduce concrete compositional effects to single meanings of single forms, and its corollary, the effort to reduce the description of the relation between external phenomena and interpretations to a description of the relation between different forms. It has appeared that, as more interpretive aspects are reduced to forms, the less substance remains for the notion of form, and as more constraints are postulated on possible relations between different forms (for one expression), the effort of reducing interpretive aspects to forms becomes proportionally less successful.

In retrospect, this does not seem unnatural: if linguistics is to describe and analyze (inter alia) the way forms and interpretations are related, it seems contradictory to the very nature of the discipline to try to reduce one to the other. That this formal approach has nevertheless come to dominate the field will probably only be completely understandable from its history: an important part has been played, I think, by what was called "the concreteness fallacy" in chapter 1.

Despite the mainly negative nature of the argument, the discussion in the preceding sections has produced more results than just reasons for not adopting the formal approach. Perhaps the most important general result is that it has become increasingly clear that several assumptions on apparently unrelated issues are in fact closely connected.²⁸ By way of concluding, I want to return to one, perhaps the most general case of this relatedness of different issues: the fact that the conceptual difference between the formal and the functional approach relates to a difference, in certain respects a conflict, between general views on the nature of

linguistics, embodying different views on the nature of language and of human beings, who know and use language.

Consider the widespread view that there is a fundamental difference in the two approaches with respect to 'explicitness' or its counterpart, 'vagueness'. The functional approach, crucially assuming abstract meanings, is often denounced for the 'vagueness' of its crucial explanatory concepts and confronted with the alleged 'explicitness' of formal grammars. We are now in a position, on the basis of the discussion in this chapter, to show that this criticism misses the essential point.

As was already stated in 2.4.0, the two approaches have a certain 'logical structure' in common: in one case, the assumption of abstract meanings is essential in the analysis of complex data; in the other case, the assumption of hidden forms is just as essential for the same purposes. In principle, the problems of establishing these 'unobservables' are necessarily of the same magnitude in both cases; formalization does not make the relation between 'explicans' and 'explicandum' "more explicit" - it is even unclear what this phrase might mean here.

Again in principle, there are no more problems with providing some formal notation for abstract meanings than there are for hidden forms and the like. The reasons that the two approaches nevertheless may differ in this respect has nothing to do with vagueness, but with the view on the role of the content of linguistic categories in explaining language use. Formalized systems, by their very nature, are unable in principle to capture the content of the concepts formalized; they never add explanatory value to these concepts. Thus it is always a matter of interpretation: it requires an interpretive act to say that some system formalizes some theory. There is no principled difference here between the use of a formal or a natural language as a means to communicate something about the content of an (allegedly) explanatory theory: ²⁹ understanding some external phenomenon as 'expressing' some theory ultimately depends on interpretive acts on the part of the person trying to understand.

In the general characterization of the formal approach (see also the first objection to the formal approach in 2.4.1), I implied that the two views

differ in their view on the degree of 'freedom' of speakers in using their language: the formal approach, assuming 'intricate innate structure' and 'rules' mapping one level onto another, naturally describes speech behaviour as controlled by principles outside the control of a speaking subject - this is manifested in descriptions to the effect that some element 'requires' or 'allows' the presence of some elements and 'forbids' the presence of other, i.e., it is manifested in the idea of the predictability of certain aspects of utterances, specifically whether certain elements will or will not co-occur. This is the point where formalization does make a difference: if one wants to make predictions, formalization is useful, for it makes it possible to calculate them: given the value of certain variables and certain inviolable rules of calculation, the (possible) values of other variables can be calculated, and therefore also those (combinations of) values that are said to be impossible - in the case of language: those combinations of linguistic elements which are said to be 'ungrammatical'. Formalization does not make a theory 'more explicit' (what a theory says ultimately depends on an interpretive act), but it allows for the 'automization' of making predictions, so it is useful if one wants to make predictions.

But if one's purpose in linguistics is not to predict aspects of human behaviour, things are quite different: if a speaker is essentially free to use a specific sign if (he thinks) it suits his purposes, he cannot be 'forbidden' in principle to use it even if he has already used a sign with a more or less 'opposite' effect in some respect. In such a view then, there is no useful notion of grammaticality with any linguistic import, i.e. there is no well defined (somehow enumerable) set of grammatical sentences, and therefore no clear notion of predictability either. If one's explanatory purposes involve trying to make the actual use of linguistic signs understandable, then the full explanatory value must be sought in the meanings of the categories themselves, not in 'rules' for combining them. A central problem is then to develop an understanding of the very content of the meanings involved in the use of language. To that purpose, formalization is of no use, precisely because it has nothing to add to the notional content of a concept - and it is here that true explanations may be found, in this view. In short, the use of formalization in linguistics has nothing to do with differences in degree of abstractness, or

explicitness: these depend crucially on other factors. But it does have to do with its appropriateness in view of the question whether human beings are essentially free in using the language available to them, or essentially bound by 'constraints' and 'rules'.

On Transformational Approaches to the Interpretation and the Distribution of Adverbials

3.0 Introduction

In this chapter we will first of all introduce some apparent descriptive generalizations concerning adverbial positions in Dutch and the effects that these positions have on the interpretation of the adverbials themselves, of other constituents, and of the sentence as a whole. More specifically, we will examine some attempts to construct descriptions embodying these generalizations within the framework of transformational grammar. The emphasis will be on general features of these attempts only, because our purpose is not to decide between different generative proposals, but rather to illustrate that specific approaches to this particular area of word order also exhibit the general traits of the nature of generative grammar as characterized in the previous chapter, even though this descriptive area has not been of central interest in theoretical debates.

3.1 Deep structure positions for adverbials

As remarked in chapter 1, a general feature of many approaches to adverbials is the distinction between 'sentence modifiers' and 'predicate modifiers'; it is typical for generative grammar however, to correlate this distinction with positional differences. As far as Dutch is concerned, for example, sentences like the following are adduced to illustrate the different positional possibilities for sentence and predicate modifiers, respectively.

- (1) Piet heeft het blijkbaar met veel ijver aangepakt
 Pete has it evidently with much diligence handled
 "Pete evidently handled it very diligently"

- (2) ??Piet heeft het met veel ijver blijkbaar aangepakt
 Pete has it with much diligence evidently handled
- (3)a ... dat er straks misschien een bom op het huis zou vallen
 ... that there presently perhaps a bomb on the house would fall
 "... that presently a bomb might perhaps fall on the house"
- b ... dat er misschien straks een bom op het huis zou vallen
 ... that there perhaps presently a bomb on the house would fall
 "... that perhaps a bomb might presently fall on the house"
- (4)a De kolonel greep telkens met de rechterhand zijn linkerduim
 The colonel seized each-time with the right-hand his
 left-thumb
 "The colonel kept seizing his left thumb with his right hand"
- b De kolonel greep met de rechterhand telkens zijn linkerduim
 The colonel seized with the right-hand each-time his
 left-thumb

The alleged generalization is that obvious sentence modifiers precede obvious predicate modifiers (examples (1) and (2)), while adverbials that do not (at least not clearly) belong to different types, may be 'interchanged' (examples (3) and (4)). Observations such as these are then correlated with the observation that obvious sentence modifiers may precede the subject in the generally assumed 'underlying' order of constituents (i.e., SOV), at least in certain circumstances (the subject must generally not be pronominal, for example ¹), while obvious predicate modifiers may not precede the subject in the SOV-order (i.e. a predicate adverbial may only precede the subject if it is the very first constituent of a main clause). An example illustrating this second generalization is (5) as opposed to (6) (cf. also (3)a and b above):

- (5)a ... dat blijkbaar de werkgevers de noodzaak van deze afkoeling
 steeds groter achten
 ... that evidently the employers the necessity of this cooling
 down continually greater consider
 "... that evidently the employers think that the need for
 this cooling-down period is continually increasing"

- b ... dat de werkgevers blijkbaar de noodzaak van deze afkoeling
steeds groter achten
... that the employers evidently the necessity of this cooling
down continually greater consider
- c ... dat de werkgevers de noodzaak van deze afkoeling blijkbaar
steeds groter achten
... that the employers the necessity of this cooling down
evidently continually greater consider
- (6)a ?? ... dat met veel overtuigingskracht de werkgevers de
noodzaak van deze afkoeling beargumenteerden
... that with much cogency the employers the necessity of this
cooling down argued for
- b ... dat de werkgevers met veel overtuigingskracht de noodzaak
van deze afkoeling beargumenteerden
... that the employers with much cogency the necessity of this
cooling down argued for
"... that the employers very persuasively argued for the need
for this cooling-down period"
- c ... dat de werkgevers de noodzaak van deze afkoeling met veel
overtuigingskracht beargumenteerden
... that the employers the necessity of this cooling down with
much cogency argued for

What this all suggests is that in the case of adverbials we have the same type of different grammatical functions as those assumed for noun phrases ('arguments'), i.e. the canonical grammatical functions of subject and (direct) object: some adverbials are interpretively 'external' to the predicate of the sentence, while others are 'internal' to the predicate, and this interpretive difference is correlated with position in the 'underlying structure': the interpretively 'external' adverbial is also structurally more 'external' than the 'internal' adverbial, witness the observations that sentence adverbials generally have to precede the predicate adverbials, and that the former, but not the latter, may precede the subject in the SOV-order. In other words, there is an intuitive interpretive difference between (at least) two types of adverbials. A 'descriptively adequate' generative grammar should somehow reduce this interpretive difference to a formal difference, and the positional phenomena are 'evidence' that this is indeed the correct course to

follow.²

The exposition so far leads to the conclusion that there must be different fixed positions in deep structure for the interpretively different types of adverbials. So the next question is: what should these positions be? Given the nature of the considerations, it should already be clear that the standard assumption is that adverbials which function semantically at the level of propositions should syntactically be at some level near the S-node, in any case not within the VP; in Extended-Standard-Theory-type descriptions, this is always expressed by attaching sentence adverbials at the same level as the subject: immediately dominated by S. On the other hand, adverbials which function semantically at the level of predicates should syntactically be dominated by VP. Thus, there is an immediate correspondence between, on the one hand, the intuitive notions of 'external argument' (subject) and 'external modifier' (sentence adverbial), and, on the other hand, their assumed syntactic positions: both types of constituents are located, in the 'underlying' structure, outside the VP and immediately under S.

In an exactly parallel fashion, there is also a complete correspondence between the intuitive notions of 'internal argument' (object) and 'internal modifier' (predicate adverbial) on the one hand, and their assumed syntactic positions on the other: both are located inside the VP (in deep structure). So, generative analyses of adverbial distribution and interpretation typically assume base rules of the following type:

- (7)a $S \longrightarrow NP \text{ (AdvP) } \dots VP$
- b $VP \longrightarrow \text{(AdvP) } \dots V \dots \text{(NP) } \dots$ (for English, with SVO-order)
- c $VP \longrightarrow \text{(AdvP) } \dots \text{(NP) } \dots V \dots$ (for Dutch, with SOV-order)

Thus, one finds base rules of essentially this kind in Jackendoff (1972) for English, in Booij (1974) (applying the main points of Jackendoff's analysis to Dutch), and in Emonds (1976). More recently, De Haan (1979) has used base rules of the same kind (both for Dutch and for English), and Ernst (1984) also maintains the traditional position on this point.³ Interestingly, Ernst (1984) points out that in Jackendoff-type analyses,

the distinction between proposition-modifying adverbials and predicate-modifying adverbials is not really reduced to the structural distinction between S and VP, because it is assumed that every Adverb⁴ has in its lexical representation an explicit and positive indication of its possible interpretations; so in fact one could rightly say that on Jackendoff's account, it is the lexical meaning of an Adverb that determines its structural position, rather than the other way around. Ernst (1984) opposes to this (as he calls it) "tight fit theory" his idea of a "loose fit theory", according to which every adverbial in a certain structural position receives the specific interpretation that goes with it, as long as the lexical meaning does not make this impossible. Clearly, Ernst's efforts are directed towards a 'more pure' analogy between the role of Adverbials in a sentence and the role of Noun Phrases (nouns do not have information in their lexical entries as to the grammatical or semantic functions they may perform - these are determined structurally, cf. chapter 2). The effort is not completely successful, however, for Ernst has to allow for several arbitrary indications in lexical entries forbidding certain interpretations and therefore certain positions for the individual adverbs involved. So as far as the description of the relation between structure and interpretation is concerned, there is only a small difference between Jackendoff (1972) and Ernst (1984).⁵

We see then that as far as deep structure positions are concerned, there is very little divergence within generative analyses. The differences involve questions like "Are sentence adverbials generated to the left or to the right of the subject NP?", rather than "Are sentence adverbials generated immediately under S, or not?". The lack of divergence is completely understandable because of the generally accepted view of the function of base structures: providing a formal representation of the function of sentence elements in the whole of the sentence (cf. chapter 2). Divergences arise when the analyses resulting from this position are extended in order to attain some more descriptive adequacy, for there is more to adverbial distribution and adverbial interpretation than can be reduced to fixed positions in deep structure (modification of proposition or of predicate); as we will see in the next section, divergences arise as soon as 'movement rules' for adverbials are discussed.

3.2 Movement rules involving adverbials

3.2.0 Some preliminary observations on adverbial positions

The observations adduced in the preceding section with respect to the question of what the deep structure positions of adverbials should be were all of a relative nature. It was suggested, for example, that sentence adverbials may, under certain circumstances, appear in front of the subject in the underlying order of constituents, or that sentence adverbials precede predicate adverbials. Indeed, there could hardly have been observations of truly fixed positions of adverbials, as they may in fact occur almost anywhere in a sentence. The examples in 3.1 already illustrate this point (esp. (7)-(12)), and here are some more relevant examples, for the moment only with sentence adverbials:

- (8)a Misschien is nu ook nog een andere faktor van invloed
 Perhaps is now also yet another factor of influence
 "There might be another factor of influence too now"
- b Nu is misschien ook nog een andere faktor van invloed
 Now is perhaps also yet another factor of influence
 "Now there might be another factor of influence too"
- c Nu is ook nog een andere faktor misschien van invloed
 Now is also yet another factor perhaps of influence
 "Now another factor might be of influence too"
- d Nu is ook nog een andere faktor van invloed, misschien
 Now is also yet another factor of influence perhaps
 "Now there is another factor of influence too, perhaps"
- (9)a Waarschijnlijk willen alle aandeelhouders hun stukken vandaag
 verkopen
 Probably want all share-holders their stock today sell
 "Probably, all share-holders will want to sell their stock
 today"

- b Vandaag willen waarschijnlijk alle aandeelhouders hun stukken verkopen
Today want probably all share-holders their stock sell
"Today probably all share-holders will want to sell their stock"
- c Vandaag willen alle aandeelhouders waarschijnlijk hun stukken verkopen
Today want all share-holders probably their stock sell
"Today, all share-holders probably will want to sell their stock"
- d Vandaag willen alle aandeelhouders hun stukken waarschijnlijk verkopen
Today want all share-holders their stock probably sell
- e Vandaag willen alle aandeelhouders hun stukken verkopen, waarschijnlijk
Today want all share-holders their stock sell probably
- f Alle aandeelhouders willen waarschijnlijk vandaag hun stukken verkopen
All share-holders want probably today their stock sell
- g Alle aandeelhouders willen vandaag waarschijnlijk hun stukken verkopen
All share-holders want today probably their stock sell
- h Alle aandeelhouders willen vandaag hun stukken waarschijnlijk verkopen
All share-holders want today their stock probably sell
- i Alle aandeelhouders willen hun stukken vandaag waarschijnlijk verkopen
All share-holders want their stock today probably sell
- j Alle aandeelhouders willen hun stukken waarschijnlijk vandaag verkopen
All share-holders want their stock probably today sell
- k Alle aandeelhouders willen vandaag hun stukken verkopen, waarschijnlijk
All share-holders want today their stock sell probably

- 1 Alle aandeelhouders willen hun stukken vandaag verkopen,
waarschijnlijk

All share-holders want their stock today sell probably

The main part of this section (3.2.2 and 3.2.3) will concentrate on the proposals put forward to account for the range of positions between the beginning of the sentence and the position of the non-finite verbs in the examples above. But we will first discuss possibilities for describing the position of adverbials behind this position (cf. examples (8)d, (9)e, k and l above), because there is an issue here that does not arise in the other cases, namely whether this post-verbal position is included in the sentence (i.e., one of the categories S or S-bar) or not.

3.2.1 'Dislocated' adverbials

In this section we will be concerned with some properties of adverbial phrases at the 'right end' of the sentence, i.e. to the right of the position of the verbs (in main clauses, only the non-finite verbs), and with the way a generative grammar might handle them.⁶ Consider example (10).

- (10) Karel zei dat Piet ziek was waarschijnlijk

Karel said that Piet ill was probably

"Karel said that Piet was ill probably"

This example is ambiguous: the evaluation expressed by the adverbial waarschijnlijk ("probably") can be related to the statement expressed by the entire sentence (the speaker says that Karel probably said something), or to the contents of the subordinate clause only (the speaker says that Karel said that something was probably the case). Similar ambiguities may arise with adverbials of time, for example:

- (11) Niemand geloofde dat Jan ziek was gisteren

No-one believed that Jan ill was yesterday

"No-one believed that Jan was ill yesterday"

This is interpreted as saying either that yesterday nobody believed that Jan was ill, or that nobody believed that yesterday Jan was ill. In

practice, the rest of the contents of the clauses involved often suggests one interpretation as most likely, or even excludes the other one; thus, (12) is most likely interpreted with the adverbial relating to the entire sentence, while (13) can only be interpreted without contradiction if the adverbial is related to the subordinate clause:

- (12) Niemand vroeg me waarom ik zo vrolijk was helaas
 No-one asked me why I so cheerful was unfortunately
 "No-one asked me why I was so cheerful unfortunately"
- (13) Karel zei net nog dat Piet ziek was gisteren
 Karel said just PART that Piet ill was yesterday
 "Karel just said that Piet was ill yesterday"

In other cases, the relation between matrix and subordinate clause is such that it is possible, in principle, to distinguish between two interpretations, but the possibility has little practical interest. Thus, there is a certain ambiguity in (14), but the difference between saying one regrets having to admit something and saying one has to admit something regrettable will not be very important in most situations:

- (14) Ik moet toegeven dat ik me vergist heb helaas
 I must admit that I me mistaken have unfortunately
 "I must admit that I was wrong unfortunately"

These observations do not alter the fact, however, that a rightmost position of an adverbial in itself allows for ambiguity concerning the clause to which the adverbial is to be related. This ambiguity could be based directly in a structural homonymy, by assuming a rule moving adverbials to the right of the verb (or verbal complex) within the sentence. Then two structures can be assigned to strings like (10) and (11), one with the adverbial outside the subordinate clause, one with the adverbial contained within the subordinate clause (cf. De Haan (1976)). But this approach fails to capture certain facts particular to adverbials in this position. The main points are: in general no more than one such adverbial may occur in this position; the adverbial may not bear the sentence accent; and it does not co-occur in this position with right-dislocated NPs or PPs. Consider the following sentence:

- (15) Morgen zal iedereen denken dat zij waarschijnlijk ziek is
 Tomorrow will everyone think that she probably ill is
 "Tomorrow everyone will think that she is probably ill"

If there was a rule, operating on each S-cycle, that moved adverbials to the right, the following string would be derived:

- (16) ??Iedereen zal denken dat zij ziek is waarschijnlijk morgen
 Everyone will think that she ill is probably tomorrow

Emonds (1976: 155) proposes a rule of "Adverbial Dislocation" to describe similar phenomena in English. For the Dutch cases, this would be better than a cyclic rule since cases like (16) would not be derived and, if generalized to a single rule of Dislocation, since it would probably be able to account for the incompatibility of this phenomenon with that of so-called right-dislocation of NP or PP:

- (17) ??De generaal heeft het niet kunnen verwerken de nederlaag
 waarschijnlijk
 The general has it not been-able to-digest the defeat probably
 ("The general has not been able to cope with it, the defeat,
 probably")

- (18) ??De generaal heeft het niet kunnen verwerken waarschijnlijk
 de nederlaag⁷
 The general has it not been-able to-digest probably the defeat

Still, this would remain an unsatisfactory description, because the ambiguity of cases like (10) and (11) could then only be accounted for by assuming the possibility of extracting an adverbial from a subordinate clause to the root S, thereby violating the idea of grammatical autonomy of clauses, also in the restricted forms of this idea in generative grammar. On the other hand, excluding the phenomenon at hand from the domain of formal grammar would be just another limitation of the descriptive content, and therefore of the explanatory value, of the notions of generative linguistics (cf. chapter 2).

Before we can proceed to address the main problems, there is one more issue to be discussed in this connection. It has been stated that the possibility

of occurring to the right of the verb (verbal complex) only exists in the case of sentence adverbials - i.e. adverbials that have the distributional properties of preceding predicate adverbials and of being allowed to precede the subject in the 'underlying' order (under certain circumstances).⁸ This fact, if it can be corroborated, could be put forward as evidence for a structural distinction between sentence adverbials and others, if the possibility of them occurring to the right of the verbal position could be accounted for in terms of this structural distinction. As we have seen, there seems to be little prospect for the fulfillment of precisely this latter condition. Furthermore, it is questionable whether the alleged fact can indeed be corroborated. Thus it seems perfectly possible for predicate adverbials to occur to the right of a verb in cases like the following:

- (19) Ik denk dat het eenvoudig niet kan mechanisch
 I think that it simply not can mechanically
 "I think that it is simply impossible mechanically"

Although it requires a bit of a special context, this example does not appear as very different from cases involving sentence adverbials. We will not pursue these matters any further in this chapter (but see 5.4.1); suffice it to remark that it does not appear to be possible to incorporate them into the generative framework in a straightforward and consistent way.

3.2.2 Sentence internal positions: movement of adverbial or of NP?

Concerning the clearly sentence-internal positions the following question arises: given the generally accepted analysis of sentence adverbials immediately under S and predicate adverbials immediately under VP in deep structure, do the adverbials move to the right over the NPs or do the NPs move to the left over the adverbials? Both possible answers have in fact been proposed in the literature.⁹

The rule of "Adv-postposing", proposed by Booij (1974), has one special property: an adverbial is moved to the right over an adjacent noun phrase. As Booij points out, this guarantees that the order of adverbials relative

to each other remains the same as in deep structure; in this way, the generalization is captured that sentence adverbials always precede predicate adverbials (cf. 3.1, esp. in connection with examples (1) and (2)); this order is imposed by the phrase structure rules (cf. 3.1), and the adjacency requirement on the movement rule in fact forbids changing it. Another consequence, not pointed out by Booij but relevant in view of the existence of an alternative, is that the relative order of NPs (i.e. subjects and objects) cannot be changed by a rule moving adverbials. This generalization seems at least as desirable to capture as the one on the relative order of different types of adverbials. Thus, the idea is that there are two generalizations to be captured: the relative order of external and internal 'modifiers' is fixed, and the relative order of external and internal 'arguments' is fixed too. The first is accounted for by means of a stipulative condition on the rule moving adverbials (allowing movement only over an adjacent noun phrase), the latter is an automatic consequence.

This relation between the ways the generalizations are accounted for is, in a way, reversed in the alternative of NP-preposing. It will be clear that the relative order of adverbials will remain the same as in deep structure as an automatic consequence of the fact that the adverbials do not move; and it will also be clear that some (with respect to the movement rule: extra) provisions must be taken in order to prevent the NPs from freely interchanging their positions. That is, as far as the data adduced so far are concerned, the descriptive content of the two approaches is in fact identical, and whatever the other differences will turn out to be, there is no difference of opinion that the two generalizations just mentioned are correct and should be captured by a descriptively adequate grammar of Dutch.

The first point put forward by De Haan (1979) in favour of NP-preposing over Adv-postposing is the following. De Haan observes that moving sentence adverbials to the right would let them 'enter' the VP: the rule would be 'downgrading'. De Haan follows Jackendoff (1972: ch. 3, e.g. p. 106) in that the interpretation of adverbials is determined at surface structure and therefore he concludes that sentence adverbials will have to be dominated by S in surface structure too (otherwise the required interpretation could not be derived). So in order to assure correct surface

structure interpretation of the function of adverbials it must be the NPs that move to the left, rather than the adverbials moving to the right (De Haan (1979: 65)).

Although this argument is clear, it is completely dependent upon the specific assumption that the decision as to whether an adverbial modifies the contents of the entire sentence or only of the predicate is to be taken on the basis of surface structure only. Thus the force of the argument is rather limited: essentially, the theory would not change at all if this assumption were modified (for example, by making the original positions of adverbials somehow 'visible' for the semantic interpretation rules operating at surface structure).

But there are more directly descriptive issues bearing on the choice between the two approaches. These involve certain observations which indicate that different orderings of an adverbial with respect to a noun phrase sometimes bring about quite different interpretations of the sentence and the elements in it (esp. the NP involved). Consider the following pair of sentences from the beginning of 3.2.0:

- (8)b Nu is misschien ook nog een andere faktor van invloed
 Now is perhaps also yet another factor of influence
 "Now there might be another factor of influence too"
- c Nu is ook nog een andere faktor misschien van invloed
 Now is also yet another factor perhaps of influence
 "Now another factor might be of influence too"

In (8)b, the 'existence' of something that might be called een andere faktor ("another factor") is not necessarily said to be assumed by the speaker; presumably, there is some not completely understood situation and the speaker raises the possibility of 'another factor' as having influence, without committing himself to the existence of any factor whatsoever. But (8)c is quite different: here the speaker seems to assume the existence of something to be called "another factor", and raises the question whether it might be the one that is of influence. In other words (more current in grammar), the indefinite NP in (8)b may be non-specific, the one in (8)c may not, it is specific. Thus, the speaker presents the ideas of a factor

and of its influence as independent of each other, which is not very usual and may give rise to the feeling of 'oddness' in the case of (8)c. The only difference in the form of the two sentences is the ordering of the modal adverbial with respect to the subject NP, so this must be the factor responsible for the interpretive difference. Now consider the following sentences:

- (20)a Daaron moet hij waarschijnlijk een grotere computer huren
 Therefore must he probably a bigger computer rent
 "Therefore he will probably have to rent a bigger computer"
- b Daaron moet hij een grotere computer waarschijnlijk huren
 Therefore must he a bigger computer probably rent
 "Therefore he will probably have to rent a bigger computer"

Again, in the case where the indefinite NP (now a direct object) follows the modal adverbial it is preferably interpreted as non-specific, and a message naturally conveyed by (20)a is that the computing facilities available up to now are insufficient for the growing tasks. In (20)b, the indefinite NP is not non-specific, but the difference with (8)c is that its natural interpretation might better be called 'generic' than 'specific': a message naturally conveyed by (20)b is that (for the reasons indicated by Daaron ("Therefore")) anything that may be called "a bigger computer" will probably have to be rented. As in (8)c, the idea evoked by the indefinite NP (in this case, the idea of a bigger computer), is presented as given, independently of the idea of renting, though in (20)b it is naturally interpreted as the idea of 'any bigger computer', rather than 'some specific bigger computer'. But it is a common feature of both (8)c and (20)b that the indefinite NP to the left of the sentence adverbial cannot be non-specific.

What is observed then, is that the position of sentence adverbials and noun phrases relative to each other may influence the interpretation of the noun phrases (sometimes quite drastically), while the interpretation of the adverbials seems to remain unchanged: the adverbials in (8)c and (20)b are just as much modal sentence modifiers as those in (8)b and (20)a.¹⁰ Now, if this aspect of the interpretation of the sentences involved is to be reduced directly to some formal difference, this observation implies that

it is the structural position of the NP which must be different in both cases; i.e. the NPs must move in such cases, not the adverbials, because the interpretation of the NPs 'changes', not the interpretation of the adverbials. The most explicit statement of this position probably is in Van den Berg (1978: 221); it is also present in Van den Hoek (1980, e.g., p. 128), in Kooij (1978: 376), and in Kerstens (1975), cited and adopted by De Haan (1979: 70-73; esp. p. 72). Although these authors are not all transformationalists 'to the same degree', it is evident that the general character of the generative research programme, as seeking to reduce aspects of interpretation directly to structure, also penetrates into the descriptive practices concerning the ordering of adverbials with respect to other elements in the sentence.

3.2.3 Problems of adequacy within both 'movement-approaches'

Not only is the way these problems of description are approached quite typical, and parallel to the way the canonical descriptive problems of generative research are handled, in the case of adverbials too we find that the analysis suffers from theoretical and especially programmatic inconsistencies, as it does on the more abstract level discussed in chapter 2; upon some consideration it appears that both kinds of rules proposed (Adv-postposing, or NP-preposing) run into trouble within the generative framework itself: neither really 'fits' the framework, so to speak. We will now turn our attention to these problems, not so much in order to find solutions, but rather (as indicated at the beginning of this chapter) in order to illustrate the general thesis of this chapter and the previous one, that such problems result from the nature of the generative research programme.

As observed by De Haan (1979: 65), the movement of adverbials to the right results in downgrading; in the framework of trace theory, this implies that the rule will probably not be an instance of the core-rule 'move alpha', because such rules always move upward, as a consequence of the incorporation of constraints on movement in constraints on anaphora, i.e. in the theories of 'binding', which incorporate the requirement that the 'binder' (the moved phrase) of a 'trace' (the empty position created by the movement) must not be lower in the tree than the trace (the c-command

requirement). So a rule which moves adverbials to the right and therefore 'lowers' them is inconsistent with this conception of the core of grammar and will probably have to be assumed to belong to the 'periphery' or whatever. At any rate, it will mean a further limitation of the descriptive domain that can be claimed to be explained by the theory.

The same conclusion can be drawn from a consideration of some other aspects of a rule lowering adverbials. It was mentioned above that De Haan (1979) noted that such a process would, at least without further stipulations, contradict the idea that semantic interpretation is determined at surface structure only. In the present framework ("Government-Binding Theory"), for example, it would probably mean that the distinction between sentence and predicate adverbials is not syntactically based, i.e. is not reducible to a difference in structural position (which may in itself be a correct conclusion, of course, but one which is not at all in the spirit of the generative research programme); and it would mean that the correlations between different orderings and different interpretations mentioned above have no structural basis either, which also results in the loss of a generalization since these interpretations can, intuitively, be described as involving a relation between quantification and word order (cf. De Haan (1979: 70-73), Kerstens (1975)). To put it in terms used earlier in this section: there would be intuitively felt adverbial parallels to the standard grammatical functions of subject and object (as predicate-external or predicate-internal modifiers and arguments, respectively), and there would be intuitively felt influence of adverbial positions on possibilities of quantification in sentences, but neither could be provided with a direct structural basis, i.e. the formal approach could not provide an explanation of the phenomena involved.

The alternative of NP-preposing, on the other hand, seems to fit the GB-framework better. For example, it maintains the possibility of distinguishing between sentence and predicate modifiers on a structural basis in surface structure too; it provides a direct structural basis for an account of the interpretive effects of ordering on NPs; and it involves no downgrading -- on the contrary, NP-preposing would even result quite often in a structurally higher position of the NP, so it is clearly in the spirit of the 'move alpha'-framework. Recently, Hoekstra (1984) has even pointed out that it is possible to imagine an application of 'move alpha'

that has precisely the effects of earlier proposals, esp. the one by De Haan. This suggestion being the most recent one within the generative framework, we will take it as our starting point for a consideration of the merits of the NP-preposing idea.

Hoekstra points out that this application of 'move alpha' must be an adjunction, not a substitution, there being no independently generated NP-position for the NP to move to. We will not pursue some theoretical issues related to this suggestion¹¹ but rather concentrate on the descriptive contents of this proposal as far as adverbials are concerned. The idea that NP-preposing, taken as an instance of 'move alpha', must be an adjunction implies that the moved NP does get into a structurally higher position, but it does not come to be dominated by a node of a different category (specifically, an NP originally contained within the VP does not become a daughter of S), because the adjunction creates a new (higher) node dominating the moved NP, of the same category as the node dominating it originally. Thus, when an NP contained within a VP is adjoined to this VP, a new VP-node is created, dominating the moved NP and the original VP. For example, consider the underlying structure (21):

- (21) dat [_S Jan [_{VP} gisteren [_{VP} zijn vriendin ontmoette]]]
 that Jan yesterday his girl-friend met

Movement of the direct object zijn vriendin ("his girl-friend") results in the structure (22) (cf. Hoekstra (1984: 114, 116)):

- (22) dat [_S Jan [_{VP} zijn vriendin₁ [_{VP} gisteren [_{VP} e₋₁ ontmoette]]]
 that Jan his girl-friend yesterday met

The e indicates the original position of the moved NP, the subscripts represent the binding relation. The highest (in (22), 'leftmost') VP-node is newly created as a part of the process of adjoining the NP to the VP which was the highest one up till then (the leftmost one in (21)).

Putting off, for the moment, the question of how one gets two VP-nodes in a single clause to begin with (as in (21)), it would seem that in this analysis, an object NP can never 'escape' to a level in the structure that was higher than the VP in deep structure: an NP which is in the VP in deep

structure will never come to be immediately dominated by S: although it may move upwards, this always involves adjunction to the VP immediately dominating it and this creates a new VP-node immediately dominating the NP. Even allowing for the possibility of lots of stacked VP-nodes, the question that immediately arises is: how does an NP contained within a VP move over sentence adverbials? If these are assumed to be contained within VP too, we will again have lost the idea that the distinction between sentence and predicate modifiers can be reduced to the same structural differences as provide the formal basis for the distinction between subject and object. And if sentence modifiers are not contained within the VP, how do object NPs move to the left of them? Thus, we will have to take a somewhat closer look into the way Hoekstra provides for deep structure positions of adverbials.

As we already mentioned in 3.1 (note 2), Hoekstra disposes of phrase structure rules entirely, the idea being that these do not have explanatory value anyhow, and that there are several principles available (partly proposed by Hoekstra (1984) himself) to account for word order phenomena; these principles involve (directionality of) government, the projection principle, case-assignment and the like, i.e. all kinds of things concerning verbs and their 'arguments' which do not directly carry over to adverbial constituents. So the question is: "How should adverbial modifiers be accommodated within a theory that dispenses with PS-rules?" (Hoekstra (1984: 113)). Following Jackendoff's (1977) characterization of the nature of predicate adverbials as mapping predicates onto predicates, Hoekstra states: "The semantic characterization of adverbial modification given above states that the semantic type of the predicate is preserved when it is modified by an adverbial. A theory of syntactic adjunction of modifiers would give a parallel syntactic preservation." (Hoekstra (1984: 113)). What this boils down to is that, as a matter of principle, there is a node VP for every adverbial, dominating the adverbial and another VP, - perhaps also containing an adverbial, but ultimately a simple canonical VP, consisting of a verb and the arguments required by it (hence the two VP-nodes in (21)). And because the node dominating the adverbials is of the category VP, it is possible for an NP contained in VP to be adjoined to it (see above), thereby moving to the left over adverbials (Hoekstra (1984: 116/117)).

In the context of his discussion of the idea of adjunction of adverbials instead of stipulating PS-rules for them, Hoekstra does not present examples with adverbials that do not strictly modify the contents of a VP and have therefore always been used as standard examples of sentence adverbials; and as we saw above, he takes his starting point specifically in Jackendoff's characterization of predicate adverbials. So following Hoekstra's account, if taken at face value, one of the following two situations must hold: either 1) sentence adverbials are not adjoined to VP but to some other node, say S, and then the analysis suggests a sharp distinction between these adverbials and others with respect to the possibility of moving object NPs to the left of them, or 2) sentence adverbials are also adjoined to VP, and then we no longer have a structural distinction between the two types of adverbials, losing at least one of the arguments put forward by De Haan in favour of the NP-preposing analysis (see above). Unfortunately, Hoekstra is not clear as to what his position is in this respect: his text provides suggestions in both directions,¹² but he is not really explicit about it. Suppose then, for the sake of the argument, that Hoekstra would in fact assume that all adverbials are adjoined to VP¹³ in order to allow for movement of objects to the left of adverbials; then we are again faced with other problems of observational and descriptive adequacy: how to account for the fact that adverbials may, under certain circumstances, appear to the left of the subject, even in subordinate clauses, and how to describe the intuition that such cases generally seem to involve modification of the sentence, rather than the predicate? (cf. the discussion at the beginning of 3.1 above, and the examples at the beginning of this section).

The least we will have to say, then, is that Hoekstra's proposal is not elaborated enough to allow for more or less conclusive evaluation within the GB-framework. At the same time, it is also quite clear that a consistent and general solution to the problems pointed out is not readily at hand within that framework.

There is one more general problem with the NP-preposing-idea, to which we now turn. Hoekstra's book being the most recent relevant generative publication on Dutch, we will again take it as our starting point. As was mentioned above, Hoekstra's version of NP-preposing differs from previous proposals in that an object moved to the left does not become a daughter of

the S-node, because every time it is moved, a new VP-node is created. Presumably, this is at least one of the reasons for his assertion that problems with the idea of NP-preposing pointed out in Verhagen (1981) do not carry over to his analysis. As far as I can see, however, this is at best only partly true.¹⁴

The crucial point is that in any NP-preposing approach, some special arrangement must be made to ensure that NPs are not preposed over other NPs, but only over adverbials, just as in the Adv-postposing approach some special arrangement had to be made to ensure that the order of the adverbials relative to each other was not changed by the application of the postposing rule. Specifically, the preposing of NPs should not result in a general reversal of the order of the indirect object (without a preposition) and the direct object. De Haan (1979: 156) presents the following examples as ungrammatical:

- (23)a * dat Harry het boek_j waarschijnlijk de jongen e_j heeft gegeven
 that Harry the book probably the boy has given
- b * dat Harry waarschijnlijk het boek₁ de jongen e₁ heeft gegeven
 that Harry probably the book the boy has given

These strings show the forbidden reversal¹⁵ of the order of direct and indirect object, resulting from the preposing of the direct object to the left of a sentence adverb and to the left of another NP, respectively - the e's indicating the assumed original positions of the direct objects. It appears that a phrase may not pass, in moving, another phrase of the same type, i.e. the distance over which such a movement applies must, in some sense, be minimal. It is therefore understandable that De Haan (1979: 154-159) tried to accommodate this generalization within his "Minimal String Principle", which stated that if a movement rule could in principle apply to a sentence in more than one way, it was in fact only allowed to operate in such a way that the movement applied over the shortest possible substring.¹⁶ Now, it is assumed that movement rules may in principle operate over null-strings; for example, if the subject of a sentence is questioned, it is assumed to have moved to the initial COMP-position without actually crossing any material. Specific evidence that this so-called string-vacuous application should also be allowed for in the case

of NP-preposing is found in the ambiguity of indefinite NPs in sentences that do not contain a sentence adverbial. Consider the string (24) (cf. (20) above):

- (24) Daaron moet hij een grotere computer huren
 Therefore must he a bigger computer rent
 "Therefore he must rent a bigger computer"

With the last accent on the main verb huren ("to rent"), the indefinite NP is preferably interpreted generically; and with the last accent in this NP itself, a non-specific reading is preferred. Thus, this order of elements allows for an ambiguity between readings that is 'resolved' in other sentences containing a sentence modifier. This can only be described formally in a general way if one assumes that the string (24) actually has two structures: roughly, (25)a and b, with the second resulting from a movement of the object out of the (lowest) VP: ¹⁷

- (25)a [_S Daaron moet hij [_{VP} een grotere computer huren]]
 Therefore must he a bigger computer rent
- b [_S Daaron moet hij een grotere computer₁ [_{VP} e₁ huren]]
 Therefore must he a bigger computer rent

Since this movement does not affect word order, it is clear that string-vacuous application must be a possible option for NP-preposing (cf. De Haan (1979: 64, 66, 71-73, and 76, note 25)). But then the problem arises that the shortest possible string to be passed will always be the null-string, so that the movement will never be allowed to result in observable effects. In other cases of movement rules, this fatal effect does not occur, because the movement is to a specific, designated position, for example COMP in the case of wh-movement, but NP-preposing does not involve movement to a specific position. Still, string vacuous application must in principle be possible in view of ambiguities attributed to structural homonymy resulting from the movement of an NP out of its VP, or at least out of its original position: without the possibility of string vacuous application, these phenomena could not be integrated with the ones illustrated earlier (involving adverbials), which would mean a fatal loss of descriptive adequacy. So there are a number of properties of the

NP-preposing idea which taken together have the consequence that preposing is in fact not allowed: it is intended to account for interpretive effects on the noun phrases moved (so it must change the structural position of these noun phrases and string vacuous application must be possible), but it must not be allowed to move NPs over other NPs (so it must obey some 'minimal distance' principle), and the noun phrase is not moved to a designated position; the ultimate effect is that the rule is always defined in a way that the NP involved may only move over a null string, so that it can never get to the left of any constituent (specifically, an adverbial) that is to its left in deep structure (cf. Verhagen (1981) for a more elaborate argumentation, involving the formalism of transformations).

As Hoekstra states that De Haan's arguments to support his NP-placement rule carry over to his own proposal, we may assume that his adjunction-application of 'move alpha' is allowed to apply over null strings too (the general theory of adjunction does not forbid it, either).¹⁸ But then the same objection applies: in order to avoid application of the adjunction over another NP, some 'minimal distance' principle, in terms of strings, will have to be invoked,¹⁹ and that will forbid any observable effect of the adjunction.

Replacing such a general 'minimal distance' principle with another one with the more limited effect that NPs would be allowed to prepose over strings of arbitrary length, but not over another NP - in itself not a very attractive idea - will not provide a descriptively adequate solution, because the information relevant to this 'restriction' is in fact not just categorial; that is to say, a constituent of the category NP may be 'passed' by another NP if the former functions as an adverbial, which is perfectly well possible:

- (26)a Ik heb de hele dag die zware tas gedragen
 I have the whole day that heavy bag carried
 "All day I carried that heavy bag"
- b Ik heb die zware tas de hele dag gedragen
 I have that heavy bag the whole day carried
 "I carried that heavy bag all day"

That is, if some principle (whatever its contents) were to forbid an NP to move over any other NP (whatever its function), these sentences would not be described in the same way as the pair in (27), which is clearly inadequate.²⁰

(27)a Ik heb vandaag die zware tas gedragen
 I have today that heavy bag carried
 "Today I carried that heavy bag"

b Ik heb die zware tas vandaag gedragen
 I have that heavy bag today carried
 "I carried that heavy bag today"

To conclude this chapter, I think it is clear that attempts to incorporate into the generative framework an account of the distribution of adverbials and of the effects of this distribution on the interpretation of the sentence systematically run into problems - not only problems of observational adequacy, but especially problems of consistency. Now it might seem a natural move to exclude the phenomena at hand from the domain of formal grammar (cf. Verhagen (1979), for example), but in view of earlier remarks, and especially in view of the discussion in chapter 2, it will be clear that such a move must still be evaluated as an indication of something fundamentally wrong. For one thing, it would constitute a further limitation of the descriptive content of the generative framework, and therefore of its explanatory domain (cf. 2.4.1). Secondly, there would be a great loss of descriptive adequacy, since the parallels between the ways modifiers and arguments function with respect to predicates (externally or internally) would not be captured, nor would it be possible to reduce the relations between word order and interpretive effects on indefinite NPs to relations between different structures at different levels of representation. In other words, this situation would still indicate the failure of the generative research programme.

We will therefore from now on follow a track that is, in a sense, diametrically opposed to those outlined in the previous sections. We will assume (and provide further arguments for it) that there is at least some truth in the intuitions about parallels between the ways adverbials function and the ways argument NPs function, as well as in the intuitions

about the relation between word order and the interpretation of noun phrases. But we will try to present a description of the effects of adverbials - in different positions - on the interpretation of sentences and sentence elements in terms of the meanings of these adverbials and these other sentence elements and in terms of the function of word order, and then explore the idea that it should be possible to provide a similar description, involving the same kind of notions, of the ways argument NPs function. That is, we will try to establish a substantial rather than a formal description of the distribution and the interpretive effects of adverbials, and then go on to explore the idea of a similar substantial rather than formal description of the distribution and interpretation of argument NPs.

Chapter 4

The Pragmatics of the Distribution of Adverbials

4.0 Introduction

This chapter and the next one will develop a description of the relation between the distribution of adverbials and the interpretation of sentences¹ (as well as specific parts of them), based on functional considerations of the type discussed in chapter 2 (specifically, 2.2). The phenomena involved concern more than those mentioned in chapter 3 (as will become increasingly clear as we proceed), so we will not just provide an alternative way of looking at the same facts, but more than that: the descriptive content of the proposals to be presented here is intended to be substantially richer than that of any of the transformational approaches considered so far.

This chapter will be restricted to a consideration of word order variations concerning the so-called middle part of the sentence. This means, roughly, that we will initially exclude from consideration word order variations in which the 'extreme' positions of the sentence (both initial and final position) are involved. This will allow us to focus more fully on the role of such different factors as accentuation, (in)definiteness, personal pronouns and lexical meanings in relation to word order variation, though at the 'cost' of a relatively concrete and therefore not generally applicable view of the function of word order.² Chapter 5 will subsequently develop a more abstract and generally applicable conception of the function of word order, partly in terms of notions that will appear to be crucial in the analyses of the other factors mentioned above, but at the same time extending both the descriptive range and the conceptual content of the analysis as a whole.

4.1 Comment modification

4.1.1 Some elementary generalizations

It might be concluded from the discussion in chapter 3 that the positioning of sentence adverbials is quite free, and that a clear interpretive difference is only present in cases involving indefinite noun phrases. However, this is not the case. For a start, let us take the sentences (9)b, c and d from 3.2.0, with the last accent ³ on the main verb in each case.

- (1)a Vandaag willen waarschijnlijk alle aandeelhouders hun stukken
 verkopen
 Today want probably all share-holders their stock sell
 "Today probably all share-holders will want to sell their
 stock"

- b Vandaag willen alle aandeelhouders waarschijnlijk hun stukken
 verkopen
 Today want all share-holders probably their stock sell
 "Today, all share-holders probably will want to sell their
 stock"

- c Vandaag willen alle aandeelhouders hun stukken waarschijnlijk
 verkopen
 Today want all share-holders their stock probably sell

There are subtle, but nevertheless clear differences between all of these sentences. Intuitively, the adverbials are felt to apply specifically to the material to the right of them, which is different in each case. We will now try to make this more explicit.

Of the three sentences above, (1)c has the most specific interpretation, in that the speaker limits his own contribution to the conversation to the introduction of the notion of "selling". The adverbial 'applies' to this notion in that it says that the idea of "selling" is (only) "probably" related to the content of the rest of the sentence. Thus, the idea of the share-holders and the idea of their stock are presented as already somehow given at the time of the utterance of (1)c. The interpretation that verkopen is actually the news introduced into the discourse by the speaker is possible in (1)a, too, but the latter also allows for other

interpretations, for example one in which the idea of all share-holders is also part of what the speaker of this sentence presents as being introduced into the discourse by him. Thus, imagine a radio-reporter asking somebody in an interview why the management of some concern shows signs of unrest. If the other person then responds with (1)c, he/she indicates that the only news that needs to be introduced into the discourse in order to answer the question is the idea of "selling", and that the idea that this involves all share-holders was already given. Therefore, this would not sound a very adequate reaction in the given situation: it is obviously more plausible to suggest that the listeners should add the idea of all share-holders going to sell their stock to their knowledge of the situation in order to understand the unrest of the management than it is to suggest that both the idea of all share-holders and the idea of their stock are already somehow given, and that only the idea of selling needs to be added in order to understand the situation.

In this particular situation, the practical difference between (1)a and (1)b is less than the difference between these two and example (1)c. But in principle there is a similar difference here, too: with the adverbial preceding the subject, the latter may be part of what is introduced into the discourse by the speaker, and with the order reversed, it is not. This may be made more or less 'observable' by considering the range of paraphrases in the form of 'pseudo-cleft' sentences that the different orderings allow for; consider (2):

- (2)a What will happen today, probably, is that all share-holders
 will want to sell their stock
- b What all share-holders will want to do today, probably, is to
 sell their stock
- c What all share-holders will want to do with their stock today,
 probably, is to sell it

As was already implied in the preceding discussion, example (1)c only allows for paraphrase (2)c, while (1)a is interpretable both as (2)a, b and c; (2)b and c are possible paraphrases for (1)b. Thus, what the sentence adverbial applies to may vary, but in all cases of (1) it is completely to the right of the adverbial, and it does not involve material to the left.

The contents of the predicates of the main clauses in (2) correspond to those parts of the examples in (1) that are to the right of waarschijnlijk

("probably"); in view of the preceding discussion, these parts are apparently to be taken as containing the contents of the speaker's contribution to the discourse, in some sense the 'core' of the assertions expressed by these respective sentences. That is, they correspond to what is known in the linguistic literature under such divergent labels as "rheme", "comment", "new information" and "focus".⁴ In each case, the sentence adverbial says that the 'news' of the sentence relates in a certain way to the rest: it may be said to 'modify the comment' of a sentence, which is to the right of the adverbial. Suppose we formulate the following generalizations on the basis of these observations:

- (3) A sentence adverbial relates specifically to the comment of the sentence; it functions as a "comment modifier".
- (4) If a sentence contains a comment modifier, the comment of the sentence is to the right of the comment modifier.

As a further illustration, consider (5):

- (5)a Morgen heb ik misschien de eerste bladzij nagekeken
Tomorrow have I perhaps the first page corrected
"Tomorrow I may have corrected the first page"
- b Morgen heb ik de eerste bladzij misschien nagekeken
Tomorrow have I the first page perhaps corrected
"As far as the first page is concerned, tomorrow I may have corrected it"

Sentence (5)a is a good way of supporting the lamentation that one's work is not progressing very well in general; (5)b, on the other hand, may be less good in such a situation, because it suggests that the idea of the first page (as such) is already given. If this is factually correct, (5)b may be used very well, of course, but (5)a does not imply such a claim with respect to specific common knowledge and is thus more generally, more 'safely', applicable: (5)b limits the speaker's contribution to the discourse to the participle. Note, however, that (4) does not in itself entail that all material to the right necessarily belongs to the comment; this accords with the discussion of the sentences in (1) above. But it seems that in some cases, such an interpretation is preferred. Consider (6):

- (6)a Morgen moet hij waarschijnlijk de moeilijkste opdracht van zijn loopbaan uitvoeren
 Tomorrow must he probably the most-difficult mission of his career carry-out
 "Tomorrow he will probably have to carry out the most difficult mission in his career"
- b Morgen moet hij de moeilijkste opdracht van zijn loopbaan waarschijnlijk uitvoeren
 Tomorrow must he the most-difficult mission of his career probably carry-out
 "As far as the most difficult mission of his career is concerned, tomorrow he will probably have to carry it out"

Sentence (6)b straightforwardly indicates that the idea of the most difficult mission is already given, and introduces into the discourse (as likely) the idea of its being carried out; it is certain that the specific mission involved is the most difficult one. But sentence (6)a is not readily interpreted that way; it might be interpreted like (6)b, but then it does not seem the best way of communicating that message ((6)b is better suited for the job). On the other hand, it might be interpreted as communicating that the speaker is not completely certain that this specific mission is the most difficult one, thus that the idea of "carrying out the most difficult mission of his career" is what is introduced (as likely) into the discourse, but then it seems that this message is better communicated with the last accent on loopbaan ("career"), as in (7), which cannot be interpreted similarly to (6)b. Thus, in cases like these, there seems to be a preference for such a combination of word order and accentuation that all material to the right of the comment modifier unambiguously belongs to the comment, so that the comment part of the sentence starts immediately after the comment modifier.

- (7) Morgen moet hij waarschijnlijk de moeilijkste opdracht van zijn loopbaan uitvoeren
 Tomorrow must he probably the most-difficult mission of his career carry-out

It is clear then, from these observations and those in chapter 3 that several different factors are involved in the actual interpretation of sentences in terms of 'what is presented as given' and 'what is introduced into the discourse'. This chapter will try to sort out these factors and

the contribution each of them makes to the interpretation.

For the present, we will not consider the question of why (3) and (4) should be the case: the question of the explanation of these generalizations will be taken up in chapter 5. In this chapter, we will simply assume that the relevant class of adverbials is somehow given. We will first go into the relation between accentuation and the formation of the comment of a sentence (4.1.2). In 4.1.3 the generalizations, specifically (4), will be worked out in greater detail. Then 4.2 contains an attempt to describe the specific interpretive effects relating to word order variation in sentences with indefinite NPs (cf. chapter 3), in terms of the meaning of the indefinite article (and other elements) and the generalizations on comment modification above. Thus, the latter are used, in this chapter, as descriptive tools rather than as formulations of relations which call for explanation. In the course of these descriptions the generalizations will appear as applying to several different aspects, as well as not being valid in an absolute sense, because there are some systematic 'exceptions': (3) and (4) will be seen to record some 'standard' usage, involving the least 'marked', or the least 'contrastive' interpretation. The 'exceptions' will ultimately provide important clues for the explanation of the observed generalizations to be proposed in chapter 5. Similarly, the material discussed in 4.3 (on the relative order of sentence adverbials and subjects) and in 4.4 (on the relative order of predicate adverbials and sentence adverbials) will provide both support for the generalizations on comment modification, and 'exceptions' which indicate that they do not themselves constitute the explanation.

4.1.2 Meaning and effect in accentuation

It was noted above that the accentuation of a sentence plays an important role in the interpretation of what may be taken as the comment in a sentence. Given what is traditionally assumed about the relation between accentuation and 'information structure', this will not come as a great surprise, but even so, we still have to try to formulate hypotheses in terms of the meanings of the linguistic signs involved, and the ways they are used, in order to make the relevant phenomena 'intelligible'.

Recently, an interesting proposal concerning the meanings of various pitch contours in Dutch has been put forward by Keijsper (1985),⁵ reaching far beyond the traditional insight that at least certain pitch contours are closely related to the interpretation of what is 'new information' in sentences. Keijsper proposes that one of the components of the meaning of any accent (whether rise, fall, or rise-fall) is that the speaker thereby explicitly denies that the idea evoked by the accented element in that particular speech situation (its 'referent' in a broad sense of the word) is absent; in Keijsper's wording: any accent means at least "not not". We will, however, employ a notion somewhat different from this one of 'double negation'; in order to explain why, we will first have a closer look at this particular proposal, before going into the differences between accents beyond their common meaning.

The presentation of the proposal that "not not" be viewed as the general meaning of accent (Keijsper (1985: 171-178)) makes it clear that something else is meant than just 'double negation' in the simple sense of propositional logic. Rather, what is aimed at is an explication of the notion "focusing attention on something" (that is, on the idea evoked by an accented element in a particular speech situation), and the proposal consists in an analysis of this notion in terms of 'becoming aware that the idea evoked by the element in this particular situation could have been absent, but is not', i.e., 'what the element evokes is not not present'. If taken literally in this compact form, however, this might seem to formulate a property of all speaking: a speaker is always talking about what he is talking about, and not about something else. But accent involves a particular way of viewing the presence of an idea, not just viewing it as present, which is equivalent to "not not present", at least in simple types of logic. What is added by an accent, it seems, is an instruction to take the idea evoked by the accented element as an, in the speech situation relevant, alternative to another idea. Thus, the ideas evoked by the elements of an utterance are all 'made present' (i.e., in some sense, "not not present") simply through the act of speaking, but some of them are additionally presented as relevant alternatives.

Another reason for providing a different formulation for the meaning of accent is that the formulation "not not" is in fact less clear than it might seem at first sight (cf. Sassen (1985), for example). Thus, if both

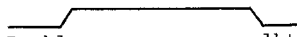
occurrences of "not" in Keijsper's formulation of the meaning of accent are to be taken as in fact occurrences of the negative particle of a natural language (in this case, of English), then it would seem that every accent must involve something like what Seuren (1976) calls "radical negation", resulting in a so-called "echo-effect": two occurrences of not in a natural language sentence always have this effect, but accentuation does not. But on the other hand, if the formulation "not not" is to be taken in the sense of simple propositional logic,⁶ then the analysis would seem to run the risk of not being able to identify the additional effect of accentuation above the fact of speaking as such. Fortunately, the story Keijsper tells clarifies what she actually means, and I want to suggest that "relevant alternative" is better suited as a 'label' for the story of accentuation than "not not".

This is not to say that attempts to analyze the contents of such notions as 'focus of attention' or 'alternative' are useless; on the contrary, this may lead to conceptual clarification, as Keijsper's discussion shows. But assigning the status of the meaning of accent to this conceptual clarification seems to confuse the analytical activity of the linguist with the object of the analysis, thereby assigning the complexity of the analysis to the object. Nevertheless, I believe that the conception of the meaning of accent as "relevant alternative" is still in the spirit of Keijsper's analysis (in view of the story she tells in order to illustrate what is meant by "not not" in the case of accentuation), but that the use of this notion better represents the additional value of accent over speaking as such.

The proposed meaning of accent does not in itself express whether the idea to which the idea evoked by the accented element is an alternative is a positive or a negative one. That choice depends on other factors, and it leads to two possible types of interpretation of an accent.⁷ In the first case, the accent is interpreted as presenting an alternative to some other idea(s) in particular: it is selected from a set of given ideas. In the second case the idea evoked by the accented element is interpreted as an alternative to its own negation, i.e. to its absence; it is interpreted as being introduced into the discourse. First of all, the position of an accent (specifically whether it is a last accent or not) is an important factor in this respect (cf. below), and secondly one of the hypotheses to

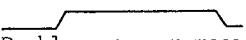
be advanced in this study is that word order in general plays an important role precisely in allowing for the possibility to evoke one (or both) of these interpretations with linguistic means.

Turning now to the semantic differences between different accents, Keijsper proposes that a so-called rise-fall (the pitch rising at the beginning, and falling at the end of the syllable, represented graphically as: ) has no meaning beyond the common meaning of accent (in our terms, it just means "relevant alternative"), while both rise and fall provide additional markings. By a rise (the pitch rising at the beginning of the syllable: ) , the speaker explicitly indicates that "something else is yet to follow", resulting in specific messages (for example, so-called 'question intonation') when this accent is the last one in the sentence (cf. Keijsper (1985: 183/4)). By a fall (the pitch falling at the end of the syllable: ) , the speaker explicitly indicates that the applicability of the idea evoked by the accented element has been considered⁸ prior to the speech moment. Consider the following examples.

(8)a 
De bloemen zijn verwelkt
The flowers are withered

b 
De bloemen zijn verwelkt
The flowers are withered

The first sentence suggests that verwelken ("to wither") is something that could be expected to happen to the flowers; the sentence says something like "The flowers have come to the inevitable end of their existence, it is time to throw them away". Thus, it introduces the idea of "withering" with respect to the flowers and it says that this is something not really unexpected. Sentence (8)b lacks such a specific suggestion, and it might therefore be used to convey that the withering of the flowers is unexpected. It is possible to construct sentences in which the accentuation 'contradicts' other information (stemming from lexical elements, or from the context) For example, consider (9):

- (12)a  De bloemen zijn mooi
The flowers are beautiful
- b  De bloemen zijn mooi
The flowers are beautiful

Sentence (12)a says "The flowers are beautiful, as you may expect from flowers", and therefore it suggests, in this specific setting, that the speaker is not particularly comforted by the presence of the flowers: their beauty is 'just' what is to be expected. Sentence (12)b, on the other hand, is a simple statement of fact, and thus may convey, in this specific setting, that the flowers constitute a positive value: they do not just represent something to be expected.

The proposals by Keijsper represent a major step forward in our understanding of the way accentuation works in Dutch, precisely because they render these phenomena understandable. Before this work, most ideas on the meaning of accentuation generally located the function of accent directly in the area of 'new' versus 'old' information, or 'focus' versus 'presupposition' and the like. Furthermore, several of these ideas involved some notion of 'main accent' or 'sentence accent' without independent criteria being provided for their identification, or without a differentiation between types of sentence accents like "fall" vs. "rise-fall". The meaning proposed by Keijsper for the specific accent called "fall" () is that the applicability of the idea evoked by the accented element has been considered prior to the speech moment. That is to say, the applicability of this idea is presented as at least construable prior to the speech moment, as 'not unexpected': hence the interpretation of 'expectedness' in the cases above. If no distinction were made between different kinds of final accents, these differences of interpretation could not be explained.⁹

Still, despite the differences between these two pitch contours they also have something in common, beyond the meaning of accentuation itself; take the sequence in (13) (cf. (8) above), for example:

- (13) De bloemen zijn verwelkt
The flowers are withered

With both types of intonation that can realize the accentuation which is indicated in (13), the idea evoked by the participle verwelkt ("withered") is interpreted as being introduced into the discourse by the speaker with his uttering the sentence (the difference being whether this introduction is presented as unexpected or not): the participle is (part of) the comment. On the other hand, the idea evoked by de bloemen ("the flowers") is not understood as being introduced into the discourse, but rather as identifying within the information commonly available to speaker and hearer, what the comment specifically relates to: it presents the flowers as a 'topic'.

Thus, it is a general property of all last accents to indicate that something is being introduced into the discourse (cf., for example, Blom & Daalder (1977: 79), Schermer (1984: 214-215), Keijsper (1985: 198, 252)). This relates to the following. Any sentence conveys at least some new information, since the act of speaking itself suggests that something should be changed in the body of information available to the speech participants (cf. Seuren (1976: 171, for a similar idea). This provides us with a description of the content of the notion 'comment': the comment is that part of a sentence which evokes the idea that is to effect the change in the common body of knowledge for the purpose of which the sentence is uttered. Thus, in a case like "John is ill", the entire state of affairs might perhaps be said to be 'news' in some rough sense of this notion, but what is linguistically relevant is that the sentence presents things in such a way that the change in the common body of knowledge is ultimately effected by considering the idea evoked by ill. Now, if a sentence contains no accent, nothing in it is presented as an alternative to anything in the existing body of common information, hence it presents no 'news', which is very awkward. If a sentence contains one accent, the accented material is necessarily (part of) the 'news', because this is the only material that is presented as an alternative at all, hence interpreted as an alternative to something in the existing body of common information; and if a sentence contains more than one accent, some material containing the last accent is necessarily (part of) the 'news', since the reason for producing an accent in this case cannot be that some idea must be selected from a set of given

ideas only 'in service' of something important that has not yet been mentioned within the same unit of information:¹⁰ within the present utterance, the idea evoked by the last accented element is presented as relevant in its own right, hence some idea evoked by material bearing the last accent is introduced into the discourse by the sentence (it relates directly to the purported 'goal' of the utterance).

Thus what we called "comment" in 4.1.1 is consistently related to the last accent of a sentence, regardless of the type of the accent. Note, however, that we do not assign the status of a sign to the fact that an accent is the last one in a sentence. There are mainly two reasons for not doing so: firstly, as we showed above, the effect of something being introduced into the discourse seems explicable in terms of the meaning of accent as such ("alternative"), combined with the fact that its relevance does not consist in setting the stage for something else that is yet to be mentioned; secondly, if the last accent is not a fall, the fact that it actually is the last one cannot be established with certainty at the moment it is realized; this implies that the fact that an accent is the last one of a sentence does not in itself serve as a means for recognizing some meaning, i.e., that it does not constitute a sign, in view of our elaboration of this concept (cf. 1.1 and 2.2). Rather, what seems to be the case is that establishing the content and the 'boundaries' of the comment of a sentence is part of relating the sentence to the world of the speech situation (i.e., when it is finished), which takes place on the basis of several different lexical and grammatical signs the speaker has provided, among which accentuation is of primary importance, although it is not the only relevant factor. The purpose of the next sections is to discuss (provisionally) some of these other factors, in relation with the generalizations on comment modification in 4.1.1.

4.1.3 Extending the generalizations

4.1.3.1 The position of the last accent

Consider the strings in (14) and (15):

(14) De president had de koningin blijkbaar uitgenodigd
The president had the queen apparently invited

(15) Piet heeft de auto misschien gewassen
Piet has the car perhaps washed

When asked to pronounce these strings, which necessarily involves adding accents, speakers of Dutch will quite generally place the last accent to the right of the adverbials blijkbaar ("apparently") and misschien ("perhaps"), respectively. Thus, the accentuations which are definitely preferred for these strings have the last accents as indicated in (14)a and (15)a:

(14)a De president had de koningin blijkbaar uitgenodigd
The president had the queen apparently invited
"The president had apparently invited the queen"

(15)a Piet heeft de auto misschien gewassen
Piet has the car perhaps washed
"Piet may have washed the car"

If the sentence adverbials precede the objects, as in (16) and (17), there is no such preference for having the last accent on the participle:

(16) De president had blijkbaar de koningin uitgenodigd
The president had apparently the queen invited

(17) Piet heeft misschien de auto gewassen
Piet has perhaps the car washed

Rather, the last accent may be placed on the object ((16)a, (17)a) or on the participle ((16)b, (17)b), with no clear preference for a or b in (16),

and a slight preference for (17)a over (17)b:

(16)a De president had blijkbaar de koningin uitgenodigd

"The president had apparently invited the queen"

b De president had blijkbaar de koningin uitgenodigd

"The president had apparently invited the queen"

(17)a Piet heeft misschien de auto gewassen

"Piet may have washed the car"

b Piet heeft misschien de auto gewassen

"Piet may have washed the car"

Placing the last accent to the left of the sentence adverbials, for example on the objects in the strings (14) and (15), results in a contrastive interpretation, which is not necessarily present ¹¹ in (16)a and (17)a (with the 'same' constituent bearing the last accent, but then to the right of the sentence adverbial):

(14)b De president had de koningin blijkbaar uitgenodigd

The president had the queen apparently invited

"Apparently it was the queen the president had invited"

(15)b Piet heeft de auto misschien gewassen

Piet has the car perhaps washed

"Perhaps it is the car Piet has washed"

Each of these sentences gives the impression of having some very specific purpose, for example that of correcting the misunderstanding of some previous utterance (an 'echo' interpretation).

Given the relation between comment interpretation and last accent, this tendency to realize the last accent (i.e., at least one accent) to the right of a sentence adverbial is clearly in accordance with the generalizations formulated in 4.1.1: (4) states that a comment is to the right of a comment modifier, hence that the last accent is to the right of a comment modifier. In fact, (4) suggests something stronger: that it would

actually be impossible for a last accent to occur to the left of a comment modifier. It is possible to construct examples that would seem to illustrate this consequence, like (18)b:

- (18)a Piet heeft misschien een auto gekocht
 Piet has perhaps a car bought
 "Piet may have bought a car"

- b ?Piet heeft een auto misschien gekocht
 Piet has a car perhaps bought

But we have seen that this consequence does not hold generally (cf. (14)b and (15)b above). Another case of such an 'exception' is to be found in (19);¹² the last accent may be on andere, i.e., on the subject to the left of the comment modifier, without the sentence becoming 'unacceptable':

- (19) Nu is ook nog een andere faktor misschien van invloed
 Now is also yet another factor perhaps of influence
 "Now another factor might be of influence too"

We conclude then, that the generalization that the comment is to the right of a comment modifier seems correct as a formulation of what is the case in sentences that do not suggest a rather specific usage. At the same time, the fact that what it lays down is no more than a 'tendency' makes it clear that, ultimately, it cannot itself function as an explanation, but rather requires one; we will return to this issue in chapter 5, specifically in 5.2.2.

4.1.3.2 The position of a comment modifier

In elaborating the relation between 'comment' and 'last accent', we have made no claims as to the 'size' of the comment within a sentence. There seems to be no definitely determined minimum to what may be construed as the 'news' introduced into a discourse with an utterance, as long as the syllable containing the last accent can be construed as (part of) an 'alternative' piece of information; consider (20), for example:

- (20) Het is niet minerologie, maar mineralogie
 "It is not minerology, but mineralogy"

This example illustrates that the piece of 'news' of a sentence may consist of information on the correct pronunciation of a phonological segment in some word.

Now consider generalization (4) again, the 'rightward tendency' in the direction of comment modification. As far as it is correct, it implies that the presence of a comment modifier within a sentence puts a limit on the maximal size of the comment: the latter does not include material that is to the left of the comment modifier. Thus, the discussion so far suggests that the position of a comment modifier may be used as a means of delimiting the comment of a sentence, especially in written language, where accentuation is absent: placing material to the left of a comment modifier has the consequence, given generalization (4), that it is unambiguously placed outside the comment. Such an ordering leads to a limitation of the possible interpretations of the sentence in terms of what is presented as being introduced into the discourse, and what is not. This is in accordance with the observations in 4.1.3.1 above. Still, the fact that the comment may sometimes (contrastively) also be to the left of a comment modifier¹³ shows that we cannot say that it is the function of the position of a comment modifier to delimit the comment in an utterance. Furthermore, accentuation is the primary instrument (in spoken language) for indicating the comment of an utterance (cf. 4.1.2), and it would be 'strange' if the roles of different linguistic means were to be so similar. This issue (as well as others) will be taken up again in chapter 5.

4.1.3.3 Pronouns: 'integration' and 'independence'

Consider the generalization that personal pronouns are rather 'odd' to the right of a comment modifier (cf. for example, Booij (1974: 637)):

- (21)a [?]Jan heeft helaas haar verraden
 Jan has unfortunately her betrayed

- (22)a ?Marie zal waarschijnlijk hem afwijzen
 Marie will probably him reject

Actually, the word order in these sentences only leads to the feeling of 'oddness' if the last accent is on the verb (as indicated). If the last accent is on the pronoun in such sentences, they are interpreted contrastively, but not as 'odd':

- (21)b Jan heeft helaas haar verraden
 Jan has unfortunately her betrayed
 "Jan unfortunately betrayed her"
- (22)b Marie zal waarschijnlijk hem afwijzen
 Marie will probably him reject
 "Marie will probably reject him"

That is, in (21)b and (22)b the pronouns are interpreted as constituting the comment on their own, and the main verbs do not belong to the comment. So whether the pronoun or the verb following it is accented, the order 'comment modifier - pronoun' always produces some special effect, which contrasts with the absolute 'normality' of the order 'pronoun - comment modifier'; (21)c and (22)c only differ from (21)a and (22)a in that they have the pronoun to the left of the comment modifier:

- (21)c Jan heeft haar helaas verraden
 Jan has her unfortunately betrayed
 "Jan unfortunately betrayed her"
- (22)c Marie zal hem waarschijnlijk afwijzen
 Marie will him probably reject
 "Marie will probably reject him"

In sentences like these, there seems to be not only a tendency for the comment to be to the right of the comment modifier, but also for it to be immediately to the right of the modifier: that is what the b and c-cases above have in common and what, apparently, distinguishes them from the 'odd' a-cases.

In 4.1.3.2, we concluded that the position of a comment modifier within a sentence may function as a delimitation of the maximal size of possible comments: material that is to the left is unambiguously outside the comment, while material to the right may belong to the comment. The position of a comment modifier thus has the effect that material to the right of it is presented as possibly belonging to the comment, i.e., that it could at least be part of the comment, if it does not itself bear the last accent.¹⁴ Suppose now that personal pronouns do not allow for such integration; then the word order of the a-cases can be said to be less coherent than the order of the c-cases: only in the latter cases is the effect of word order consistent with the nature of the pronouns. The b-cases illustrate the same point in a different way: the pronouns, bearing the last accent, necessarily belong to the comment, but the material following them cannot be integrated into the comment together with the pronouns. So let us now turn to the question why (and to what extent) personal pronouns do not allow for integration with other sentence elements into one comment.

Fuchs (1980) discusses the phenomenon that certain sentences¹⁵ with only one accent, on the subject in initial position, may be interpreted as being only comment, as 'all new' (see also Fuchs (1976), for a more general discussion of "integration" of the informative status of elements in clauses, not only involving integration of subject and predicate). Some examples in Dutch are sentences of the following type (cf. Blom & Daalder (1977: 86-88)):

- (23) De juf was ziek
The teacher [female] was ill
"The teacher was ill"
- (24) Je koffie wordt koud
Your coffee becomes cold
"Your coffee is getting cold"

As has been observed by Fuchs (1980, esp. 457/8), Blom & Daalder (1977) and others, such a sentence is always two-ways interpretable: it may convey an 'all-new' message, introducing the entire state of affairs into the discourse¹⁶ (in which case it is not interpreted as contrastive), or it

may be a statement that introduces the entities denoted by the subjects as contrasting with others, while presenting the applicability of the predicates as already given.

However, Fuchs (1980: 453/4) also notes that if the subjects of such sentences are personal pronouns, the 'all-new' interpretation is excluded (although this statement is actually somewhat too strong, as we shall see below); the cases in (25) and (26) (taking the pronouns to refer to the same 'entities' as the subjects of (23) and (24)) only have the contrast interpretation:

- (25) Zij was ziek
 "She was ill"

- (26) Hij wordt koud
 "It is getting cold"

Furthermore, an 'all-new' reading is also blocked when the predicate is (partly) pronominal, as in (27) (taking the predicate nominal het to refer to some property or state that is a topic of the conversation, for example "being ill" and "getting cold") and (28):

- (27) De juf was het
 "The teacher was"

- (28) Je koffie wordt het
 "Your coffee is"

These sentences, too, only have the contrastive reading. Fuchs relates this 'restriction', as she calls it, to a more general aspect of 'discourse organization' (Fuchs (1980: 453)), which boils down to the following: if some idea evoked by an utterance is viewed as already 'given', then that idea is, of course, not interpreted as being presently introduced. In the words of Fuchs:

Thus (very schematically): in the context of my partner's and my speaking about things to do with Peter, der Péter ist krank (Péter's ill) is inappropriate. It would be interpreted as [contrastive] in a context where illness and the like are being spoken about. In the context of our watching the dog eat

(and noticing each other doing so) der Hund ist neulich ausgerissen (the dog ran away the other day) would not fit, and meine Kätze frisst immer so viel (my cat always eats such a lot)₁₇ be interpreted to mean 'contrast'. (Fuchs (1980: 454))

In the examples presented in this citation, it is a matter of knowledge shared by speaker and hearer that the utterances, with the last accents on the subjects, cannot be readily interpreted as 'all-new'. Because the idea of Peter is in fact already given in the first context Fuchs provides, not all of the elements of this sentence, in that context, can be interpreted as 'new'; but the accentuation says that the idea of Peter should be taken as 'new', and therefore the utterance is inappropriate in that context. In the second context, the idea of illness is in fact already given, so again not all of the elements of the sentence in this context can be interpreted as 'new'; since the accentuation in itself only says that the idea of Peter is to be taken as 'new', there is now an appropriate interpretation for the sentence: the contrastive one. In neither context is the sentence interpretable as 'all-new'. Generalizing, we may say that in such contexts it is not possible to 'integrate' the ideas evoked by all elements of the utterance into one comment, because at least one of these ideas is in fact already given. This need not always be completely dependent on shared knowledge, however. The same reasoning applies when the idea evoked by an element of an utterance is simultaneously presented as in fact already given. If we were to say, for example, that personal pronouns are such elements (evoking the idea of a referent that is to be thought of as given), then the reasoning would immediately lead to the conclusion that no sentence containing a personal pronoun could ever be used to make an 'all-new' utterance, which was, as noted above, in fact observed by Fuchs.

In fact, however, we need a slightly more abstract and more precise characterization of the nature of personal pronouns. If personal pronouns were indeed to be characterized immediately as presenting their referents as 'given', we would be implying that a pronoun could never constitute the comment of an utterance, since that would always involve a contradiction. As the examples (25) and (26) above show, this is too strong a statement: these sentences are immediately interpreted contrastively, but they are not at all impossible. Apparently, the correct characterization is indeed provided by Fuchs' term "integration": it is not possible to integrate the

idea evoked by a personal pronoun with other ideas evoked by other elements of the sentence into one comment: if they bear the last accent, they constitute the comment on their own (the other elements are not integrated with the pronouns into the comment), and if they do not have the last accent, they do not belong to the comment (they are not integrated into one comment with a set of elements that does contain the last accent). What we should be saying then is that a personal pronoun always evokes the idea of an entity as also perceivable independently of the state of affairs of which a 'picture' is evoked by the utterance in which the pronoun occurs (regardless of the question of what is presented as 'news' in that utterance). This is indeed a consequence of the general function of personal pronouns, which can be said to consist of correlating participants in the evoked state of affairs to entities 'outside' this state of affairs. They are "shifters" in the sense of Jakobson (1971), elements of the linguistic "code" presenting participants in an evoked state of affairs in terms of the "message" evoking that state of affairs:¹⁸ the 'first' and 'second' person pronouns present participants in the evoked state of affairs as participating in the speech situation (or at least as including participants in the speech situation, considering the plurals wij/we ("we") and jullie ("you" plural) and the 'general use' of the second person pronoun je as in Als je daar oversteekt moet je erg uitkijken ("If you cross there, you have to be very careful"); cf. Waugh (1982: 307)). The 'third' person pronoun might be viewed as only providing the idea of a participant also participating in some other state of affairs, not necessarily the speech situation; therefore it generally indicates a participant as not including speaker and hearer.¹⁹ Thus, the general character of personal pronouns entails that the referent is perceivable independently of the state of affairs presented by the sentence in which it occurs.

It will be clear that one very common usage of an element presenting something as independent with respect to the state of affairs evoked at 'this particular speech moment' is to indicate elements that are in fact already 'given', already "in the air" somehow (Chafe (1970: 211)). The notion of independence with respect to an evoked state of affairs appears to formulate a necessary condition for the notion of givenness: the former is implied by the latter. But because the notion of independence focuses primarily on the status of an idea with respect to the evoked state of

affairs and not on its status with respect to another state of affairs, the reverse does not hold. I think that this notion (partly because of this reason) is better suited to help understand certain phenomena that are generally described in terms of 'given', 'old', and the like, and it will play a central role in the rest of this study.

What is special about (25) and (26) is that in each case the accent says that the idea evoked by the pronoun is to be taken as an alternative to some other idea, while the fact that a pronoun is used implies that this idea is also perceivable independently of the presently evoked state of affairs. An obvious conclusion is that the idea is contrasted to the other elements in some otherwise 'knowable' set: it is 'given' in the sense that it is an element of a given set, and the 'news' is that it is presented as an alternative to the other elements in that set. Incidentally, this allows for a clarification of the relation between the meaning of accent ("alternative") and a contrastive interpretation of an utterance. When discussing the meaning of accent, we said that it did not in itself express whether the idea evoked by the accented element was to be construed as an alternative to a positive idea (some other idea in particular) or to a negative one (the absence of the idea represented by the accented element). We might now add that these two types of interpretations may actually go together, in the case of a contrastive reading of the utterance. When something is only interpreted as being selected from a set of given possibilities (which is only possible with non-last accents), there is no feeling that the utterance as a whole is contrastive. Similarly, when the contents of the comment (containing the last accent) are only interpreted as being introduced into the discourse, there is no feeling of contrastiveness of the entire utterance either. A contrastive reading of the utterance is present when the comment (what is introduced) is interpreted as actually also being selected from a set of somehow given possibilities: such an interpretation means that the change in the common body of knowledge brought about by the utterance - the whole 'point' of the utterance - is taken to consist in contrasting some idea to one or more other ideas.

The behaviour of personal pronouns observed by Fuchs with respect to the specific type of accentuation mentioned above can thus be said to be completely intelligible in view of the meanings of these elements. At the

same time, this characterization is also in accordance with the observations with which we started this section: unaccented personal pronouns ²⁰ to the left of a comment modifier present no problem at all, to the right they are somewhat odd, and accented pronouns to the right of a comment modifier lead to an interpretation of the sentences involved as contrastive; in all cases the point is that personal pronouns are generally not to be integrated into the comment together with other material in the sentence.

Keijsper (1985: 276/7) provides some interesting evidence that, under certain specific circumstances, sentences with the last accent on the subject in first position may be interpreted as 'all new' even if the subject is pronominal. Consider someone uttering (29) ²¹ and at the same time making a pointing gesture:

(29) I cannot go with you because he is coming to dinner tonight

The pointing gesture makes the person involved perceivable in a way which is independent of information conveyed by the sentence, so he may be appropriately referred to by means of a personal pronoun, and at the same time the person can be perceived as being introduced into the discourse. Consequently, the second clause in (29) can be interpreted non-contrastively, as an 'all new' message (the way it relates to the speech situation does not require mentioning specific, previously identified elements in the speech situation). This confirms the idea that the notion of independence with respect to the evoked state of affairs provides a more precise characterization of what is involved in the phenomena described in this section than the notions 'given' or 'old', although there is clearly a connection between these concepts.

Note that similar phenomena may be observed to occur with accented pronominal objects to the right of a comment modifier; consider the second clause in (30):

(30) [Wat ben je laat:] Je moest zeker hem ophalen
 [What are you late:] You had-to surely him pick-up
 "[You are late!?] You had to pick up him, I suppose"

If accompanied by a pointing gesture, the comment of the second clause is readily interpreted as hem ophalen ("pick him up"), without the suggestion that the person involved is contrasted with others, and without the idea of "picking somebody up" being presupposed. But if an utterance of the second clause of (30) is not accompanied by some pointing gesture, the referent of the pronoun is presented as being perceivable independently of the evoked state of affairs and not simultaneously so. Therefore, he must be assumed to be already 'on the stage' somehow, with the consequence that the idea of his being introduced into the discourse (because the pronoun bears the last accent) is interpreted in a special way, as involving a contrast with other entities 'on the stage'.

We see then that the original observation (personal pronouns to the right of a comment modifier are somehow 'special') is explicable in terms of the generalizations on comment modification from 4.1.1 and an analysis of the function of personal pronouns; thus, the discussion again illustrates that the generalizations are significant. Still, there are cases, also with pronouns, in which the last accent, hence the comment, may occur to the left of a comment modifier, although such sentences are always interpreted as involving contrast:

- (21)d Jan heeft haar helaas verraden
Jan has her unfortunately betrayed
"Jan betrayed her, unfortunately"
- (22)d Marie zal hem waarschijnlijk afwijzen
Marie will him probably reject
"Marie will reject him, probably"

Again, such cases provide evidence that the generalizations do not in themselves constitute an explanation.

4.1.3.4 The semantics of objects and verbs

Consider the following strings:

- (31) Je hebt de verkeerde gewaarschuwd
You have the wrong-one warned
- (32) Ze had haar tegenstanders onderschat
She had her opponents underestimated

There is a difference between these two examples with respect to what counts as the preferred or 'neutral' accentuation. In (31), the last accent is preferably on the object, but in (32) it may very well be on the main verb. Thus, (31)b is somehow 'special', in that it has some 'extra' value, but (32)a does not:

- (31)a Je hebt de verkeerde gewaarschuwd
You have the wrong-one warned
"You have warned the wrong one"
- b ^xJe hebt de verkeerde gewaarschuwd
You have the wrong-one warned
"You have warned the wrong one"
- (32)a Ze had haar tegenstanders onderschat
She had her opponents underestimated
"She had underestimated her opponents"
- b Ze had haar tegenstanders onderschat
She had her opponents underestimated
"She had underestimated her opponents"

It is true that in both cases neither accentuation is excluded, but the effect of placing the last accent on the main verb in (31)b gives the sentence a rather specific interpretation, since it suggests that the respect in which the person involved is to be called "wrong" is not that he is the wrong one to warn. He/she is not characterized as "wrong" with respect to "warning": the interpretation of "wrong" is independent of the

interpretation of "warning". There also seems to be a difference between (32)a and (32)b, in that (32)b is not special at all, while (32)a may easily be taken contrastively, meaning that it was not something else she had underestimated (the jet lag, for example), but her opponents. But as far as I can see, it is not necessary to take (32)a contrastively; it may be taken as introducing the idea of "underestimating one's opponents" as a whole. Still, there is clearly a difference between some NPs that may naturally belong to the comment and others that preferably do not.

First of all, this means that the 'neutral' position of the last accent cannot be described in purely distributional terms (for example as "preferably on the object, if this is not a personal pronoun"). Secondly, it provides further evidence for the generalizations on comment modification in 4.1.1. Consider the following examples:

- (33)a Je hebt helaas de verkeerde gewaarschuwd
 You have unfortunately the wrong-one warned
 "Unfortunately, you have warned the wrong one"
- b ^xJe hebt de verkeerde helaas gewaarschuwd
 You have the wrong one unfortunately warned
 "Unfortunately, you have warned the wrong one"
- (34)a Zij heeft waarschijnlijk haar tegenstanders onderschat
 She has probably her opponents underestimated
 "She has probably underestimated her opponents"
- b Zij heeft haar tegenstanders waarschijnlijk onderschat
 She has her opponents probably underestimated
 "Probably, she has underestimated her opponents"

In both cases, neither order of the adverbial with respect to the direct object and the verb is impossible, ²² but in the case of (33), one of the orders is 'neutral' with respect to information value, while the other one is somehow 'special' (which is indicated by the superscripted "x"). Interestingly, this does not correspond directly to one specific position; it is not the case, for example, that a comment modifier directly in front of a (main) verb is generally worse than in another position; witness

example (34)b. As the accentuation indicates, the 'least specific' position of a comment modifier appears to correlate with the 'least specific' position of the last accent: if the last accent is preferably on the object, a comment modifier preferably precedes it, and if not, a comment modifier may follow the object without causing a relatively specific reading of the sentence: the main verb may easily constitute the comment on its own. It will be clear that this accords completely with the 'rightward tendency' in the direction of comment modification, formulated in (4) in 4.1.1. In (33)b, the position of the adverbial forces the direct object to its left to be excluded from the comment, this order thus resulting in the 'special' interpretation of the sentence that the idea of someone being the wrong one is independent of the idea of him being warned: the latter idea is introduced into the discourse with the utterance of (33)b, while the idea "wrong" has been presented as given in the common body of information, so the two are not presented as intimately connected.

But although we may claim to have established that the 'rightward tendency' in the direction of comment modification is visible in these data, too, we still do not have a full understanding of the phenomenon; that is to say, we still have to answer the question of what the reasons might be for the fact that one word order is 'neutral' and another is not, depending on the lexical content of the direct object and the verb. So let us now turn to this question.

Note that the idea evoked by verkeerde in (31) is 'marked', in the sense that it does not (only) specify a certain quality, but is (also) presented as opposed to something else: in this case, to "the right one". Something similar applies to the verb in (32) in that onderschatten ("underestimate") is a specific case of (in)schatten ("to estimate"): it is the opposite of "to estimate correctly". Now recall the discussion of the meaning and effects of accentuation in 4.1.2: the meaning of accent always involves the presentation of something as an alternative. Now, the ideas evoked by lexical elements of the type we are now discussing are generally interpreted as being opposed to something else and their being presented as a relevant alternative is therefore completely natural (the combination of lexical meaning and the meaning of accent point in the same direction), while the absence of an accent on such an element will easily give rise to a more special interpretation.

Furthermore, in the case of a last accent, some idea evoked by material containing this last accent is introduced into the discourse (presented as an alternative to its absence). And lexical items that provide relatively specific information are thereby relatively useful for helping to recognize parts of a message that are not already completely evident. Thus, such 'marked' lexical items are particularly useful for presenting the 'news' of an utterance. If the word order also suggests that such an element could be part of the comment (because there is no comment modifier, as in (31), or the element involved is to the right of a comment modifier, as in (33)a), it is implausible that such an element should still not be taken as belonging to the comment: without clear indications to the contrary, such elements tend to be interpreted as part of the comment. Thus there are indeed reasons for the feeling that there is a clearly 'neutral' accentuation in such cases, that a last accent in another position at least requires some special interpretive effort. In the case of (31), it is the special, negative character of the idea evoked by verkeerde ("the wrong one") that suggests that the object should belong to the comment, so that the order of (33)b requires a special interpretation; and in the case of (32), it is the special character of onderschatten ("underestimate") that allows for the contents of the verb to constitute the comment on its own, so that the order of (34)b does not require a special interpretation.

Once the role of the semantics of verbs and objects has been recognized, it is easy to construct several different cases of the same phenomenon; for example, consider the following sentences.

(35)a Hij zal waarschijnlijk de video-recorder nemen
 He will probably the video-recorder take
 "He will probably take the video-recorder"

b ^xHij zal de video-recorder waarschijnlijk nemen
 He will the video-recorder probably take
 "He will probably take the video-recorder"

(36)a ^xHij zal waarschijnlijk de video-recorder weigeren
 He will probably the video-recorder reject
 "It is the video-recorder, probably, what he will reject"

- b Hij zal waarschijnlijk de video-recorder weigeren
He will probably the video-recorder reject
- c Hij zal de video-recorder waarschijnlijk weigeren
He will the video-recorder probably reject
"The video-recorder he will probably reject"

The verb nemen ("to take") does not evoke a 'marked' idea, as compared to weigeren ("to reject", "to turn down"), since the latter is, again, of a negative nature and therefore evokes the idea of an alternative, while the first does not. In (35)b, the verb must constitute the comment on its own, but it provides very little specific information in itself, so that its relevance must to a relatively great extent depend on some specific context, in which it is useful to introduce the idea of taking while presenting the idea of the video-recorder as already present. The effect is, then, that the comment is interpreted contrastively, for example as correcting some misunderstanding.

In (36)a and b, on the other hand, the word order suggests that the idea of the video-recorder could be integrated into the comment, while the idea evoked by the verb has a negative feature ("not accepting"), making it specifically 'suited' for accenting. Therefore, if the last accent is in fact on the object ((36)a), the sentence is interpreted contrastively, (with the verb excluded from the comment): "the thing he will reject is the video-recorder". If the last accent is on the verb ((36)b), the preferred interpretation seems to be that the comment includes both the object and the verb, though the interpretation in which only the verb is taken as comment is not at all excluded. Sentence (36)c, finally, is not contrastive either, weigeren ("to reject") evoking the idea that is being introduced into the discourse, and this idea is sufficiently 'specific' to constitute the comment on its own.

But of course, it is not only negative features 'within' the idea evoked by a verb that make it possible for the verb to form the comment, to the exclusion of the direct object. For one thing, explicit negation, as well as certain (other) particles, may have the same kind of effect: ²³

- (37)a ^xZe hebben de auto vermoedelijk gekocht
 They have the car presumably bought
 "Presumably they have bought the car"
- b Ze hebben de auto vermoedelijk niet gekocht
 They have the car presumably not bought
 "Presumably they have not bought the car"
- c Ze hebben de auto vermoedelijk al gekocht
 They have the car presumably already bought
 "Presumably they have already bought the car"

Also, the idea evoked by a verb may itself be marked in another way than simply as negation. Consider huren ("to rent"), which is perceived, in today's society, as a rather specific way of acquiring the right to use something (at least with respect to certain goods, the range of which differs from one society to another), and therefore it is readily interpreted as an alternative to the 'normal', most common, or least unexpected way. Thus, no special efforts are required in order to interpret (38): given that one generally acquires a car in our society through buying one, no special context is required to make it immediately clear what the point of uttering (38) might be, in contrast to the situation with (37)a above:

- (38) Ze hebben de auto vermoedelijk gehuurd
 They have the car presumably rented
 "Presumably they have rented the car"

Incidentally, this illustrates that when we talk about the role of lexical semantics, we are in fact discussing the role of knowledge of certain aspects of the world that are connected, rather loosely, to certain lexical items. In fact, I think this is what 'lexical meaning' is all about: rather loose bonds between lexical units and bundles of perceived aspects of the world (whether 'real' or 'fictional' is of no principled interest), the actual contents of which may be adapted to one's purposes in specific situations (cf. Blom & Daalder (1977: 74/75)). Thus, it is not the case that lexical meanings somehow 'determine' or 'forbid' the occurrence of certain word order patterns or accentuations, but rather it is the other

way around: the fact that we can talk about interpretations for sentences with a given word order and a given accentuation shows both the reality of the effects of these means of organizing a presentation of a state of affairs and the flexibility of so-called lexical meaning. Sometimes the resulting interpretations are more usual, sometimes less, but to suggest that lexical meaning somehow 'restricts' the possibilities of word order or accentuation would be to present usualness as embodied in the meanings of the language.

As a final example, consider (39), also about buying, with the object to the left of a comment modifier, but now with the modal auxiliary moeten ("to have to") in the predicate.

- (39) Je zult het servies vermoedelijk moeten kopen
 You will the dinner-set presumably have-to buy
 "You will presumably have to buy the dinner-set"

In the generally accepted view of what it is to buy something, it is not 'normally' done under coercion. So when a situation arises in which one might have to buy something, this fact may be of sufficient significance to be introduced as such into the discourse. Thus, (39) is appropriate, for example, if the speaker refers to a situation in a china-shop, where a moment ago, the addressee broke some irreplaceable piece of a dinner-set.

It seems plausible, in view of the discussion so far, that 'stylistic' investigation of actual discourse will be useful, not only in order to further our insight in the relevant factors involved, but also, and perhaps more importantly, in order to gain insight into the way specific word order patterns 'create' a certain discourse structure, so to speak. For it must be stressed again that none of the sentences in this section which were marked as 'special' are in any sense 'unacceptable' (if this notion has any content at all); they only have more special interpretations (which may be fully 'normal' in specific contexts, or in other words, which evoke the suggestion of a specific context). Still, even without such investigation of actual discourse structure, the above discussion already shows some of the interaction between the 'semantic contents' of objects and verbs and the effect of word order on the interpretation of sentences, and it also contains an idea about the general nature of this interaction: as the

position of a comment modifier appears to set a limit on the maximal size of the comment, information provided by elements to the left is presented as accessible independently of information introduced into the discourse by the comment to the right, and the information provided to the right is presented as of sufficient substantial importance to be introduced as such into the discourse. The 'naturalness' of this division may depend on the 'usual' perception (which is not a matter of the language itself) of the ideas evoked in both parts of the sentence, as well as on the context of its use.

4.1.3.5 'Extraposition' from object NPs

Finally, consider some observations originally due to Guéron (1976) (see also Guéron (1980)).

- (40)a Vader heeft gelukkig de auto gekocht die ik het mooist vond
 Father has fortunately the car bought which I the
 most-beautiful found
 "Father has fortunately bought the car that I liked best"

- b ??Vader heeft de auto gelukkig gekocht die ik het mooist vond
 Father has the car fortunately bought which I the
 most-beautiful found

Sentence (40)b is not so much unnatural in that it evokes the idea of a specific type of context, but it sounds 'awkward', incoherent, 'bad style' at best. This accords with the observations by Guéron to the effect that so-called extraposed complements must be linked to an NP that belongs to the comment:²⁴ as the NP de auto ("the car") is to the left of the comment modifier gelukkig ("fortunately") in (40)b, it cannot belong to the comment, so the relative complement clause cannot be linked to it. So to begin with, this is another piece of evidence for the elementary generalizations formulated in 4.1.1.

But of course now the question arises why this 'restriction' should hold. First of all, note that sentence (40)a without the relative clause is 'special' in the sense of, and for the reasons given in, the previous section:

- (41) ^xVader heeft gelukkig de auto gekocht
 Father has fortunately the car bought
 "Father has fortunately bought the car"

The complement clause in (40) precisely fulfils the function of evoking an idea to which the content of the comment is an alternative, with the help of elements within the sentence itself, thereby making it readily interpretable: as the superlative indicates, there are other cars the father might have bought, but which the speaker doesn't like as much. That is to say, the relative clause is a natural part of the comment, given the amount and type of information it provides for its referent. But with the NP de auto to the left of a comment modifier, as in (40)b, this NP cannot be part of the comment. So on the one hand, if the two expressions are to be related to the same referent, an inconsistency results in the presentation of the evoked state of affairs, because the referent of "the car" is presented as somehow given in the discourse, and the referent of "that I liked best" is introduced into the discourse, while these are to be thought of as identical; put differently, the position of the comment modifier necessitates an interpretation of de auto and of the relative clause as, with respect to each other, independently accessible pieces of information, and this is not very plausible.

On the other hand, if the two expressions are not taken to be related to the same referent, the sentence is not readily interpretable either, because a relative clause of this type can hardly be taken as a 'free relative' (the introductory pronoun should have been wie rather than die), and even if it were taken as a free relative, there could only be an interpretation for the sentence if there were two independent roles for the NP de auto and for the free relative clause; for example, one of them would have to be interpreted as an 'indirect object' (indicating the entity for which the referent of the 'direct object' has been bought). Even if such an interpretation is construed, it only proves the general point that, when a relative clause belongs to the comment, there is no readily available coherent interpretation of a sentence with an NP outside the comment which is supposed to refer to the same entity as the relative clause, which is, in effect, what Guéron's generalization says.

Notice, incidentally, that the view expounded above is not formulated in

terms of 'movement' of the relative clause 'out of' the object NP. In fact, this move is even suggested by Guéron's own description, which is rightly formulated in semantic terms and thus actually makes the idea of a somehow real movement rule of Extraposition redundant for the purposes of description.²⁵

Returning now to the main theme, the explanation just given for Guéron's generalization hinges on the idea that the relative clause in sentences like (40)a 'normally' belongs to the comment,²⁶ which does not seem incorrect in view of the detailed information such clauses may supply, but which does not entail any necessity for a relative clause to belong to the comment. This analysis therefore allows for the possibility of a relative clause not belonging to the comment in a particular instance, which then would not have to conform to Guéron's generalization. I think this indeed provides the correct perspective on sentences like the following:

- (42)a Piet heeft het boek hopelijk nog niet gelezen dat hij van Marie gehad heeft
 Piet has the book hopefully yet not read which he from Marie got has
 "Hopefully, Piet has not yet read the book he got from Marie"
- b Ik heb de mensen gelukkig altijd kunnen helpen die bij me kwamen
 I have the people fortunately always been-able to-help which at me came
 "Fortunately, I have always been able to help the people that came to me"

As indicated in (42), the last accent in these sentences is not contained within the relative clause, but it is on the main verb. These sentences are different from (40)b in that they can readily be interpreted in a coherent way, while (40)b cannot. In view of the previous discussion, the reason appears to be that the relative clauses can now be taken as not belonging to the comment, so that no inconsistency need arise if they are related to the same referent as the NPs het boek and de mensen, respectively, both of which cannot belong to the comment because of the position of the comment modifier.

4.2 Indefinites

4.2.0 Introduction

Section 4.1 has established the validity of what we have called the generalizations on comment modification, on the basis of observations involving several phenomena that, as far as I know, have not been associated with the possible positions of adverbial phrases in the sentence before. We will now turn to other phenomena, which traditionally have been associated with the order of adverbials. Chapter 3 notes two different kinds of such phenomena: the alleged semantic and distributional differences between 'sentence adverbials' and 'predicate adverbials' (cf. 3.1), and a correlation between the interpretation of indefinite NPs and their position relative to a 'sentence adverbial'. The question of the relation between predicate and sentence adverbials will be taken up in 4.4. The purpose of this section (4.2) will be to demonstrate that the analysis of 'sentence adverbials' as comment modifiers, in conjunction with an analysis of the meaning of the indefinite article (and to a certain extent, of morphological marking of plurality on nouns), may provide the basis for a fuller understanding of these phenomena.

4.2.1 Instantiation

Quite generally, analyses of the Dutch articles propose "singularity" as (a feature of) the meaning of the indefinite article ²⁷ (mostly written "een", sometimes "n"). This is perfectly understandable both from historical and from synchronic points of view. It makes sense historically because the article is derived from the cardinal numeral meaning "one" (also written "een"), through reduction of the vowel [e.] to a schwa. For the sake of clarity, we will represent the numeral as [e.n] in this section, while the indefinite article will be represented as [@n]. ²⁸ Synchronically, it is also understandable that [@n] is analyzed as meaning something like "singularity", because, for example, plural nouns generally cannot be combined with the numeral and neither with the indefinite article. ²⁹

Nevertheless, the idea that the meaning of [@n] essentially involves

something like "singularity" suggests that the semantic difference between the numeral and the article is relatively marginal, and I think it is not that marginal. The notion "singular" implies that it is relevant that there could have been more than one, that counting is somehow still relevant. For one thing, I do not think this is actually a correct characterization of the interpretation of a noun phrase containing [e.n]: a sentence like (43) does not, in my opinion, evoke the idea of counting (whether actual or possible) as relevant:

- (43) Ik heb een vliegtuig gezien
 I have a plane seen
 "I saw a plane"

Secondly, the use of [e.n] with nouns that do not readily refer to countable entities does not give rise to more or less special interpretations (the use of the numeral [e.n] would):

- (44) De trein liep [e.n] vertraging van tien minuten op
 The train sustained a delay of ten minutes PART
 "The train got ten minutes delayed"
- (45) Ik zal [e.n] geweldige produktie moeten maken om het hoofd
 boven water te kunnen houden
 I will an enormous production have-to make in-order-to the
 head above water to be-able-to hold
 "I will have to produce an enormous amount to be able to keep
 my head above water"

The point of the use of [e.n] in cases like these seems to be that it enables different descriptions to evoke some idea together, in (44) the idea of something that is characterized both as "delay" and as "of ten minutes", in (45) the idea of something that is both "production" and "enormous". Consider the difference between (46)a and b:

- (46)a De trein heeft vertraging
 The train has delay
- b De trein heeft een vertraging
 The train has a delay

The effect of (46)b, as compared to (46)a, is that it not only evokes the idea of delay, but it presents it in such a way that it can also be characterized in other terms. In the case of delay, the first thing that comes to mind, of course, is its duration. Therefore, (46)b is somewhat special (strange, or rude, for example): the speaker appears to say: "I know how long the train will be delayed, but I am not telling you", and a hearer will be tempted to react with a direct question like "How many minutes?". It is not suggested in (44) and (46)b that there could have been more, i.e. other 'delays', and it is not implied in (45) that there could have been more, i.e. other 'productions'. This is not to say that the idea of the relevance of counting is completely beside the point; the possibility of recognizing several properties of one referent is a necessary condition for seeing differences between similar things, i.e. for the possibility of counting.³⁰ Especially with nouns indicating aspects of entities (cf. the English terminology of "count nouns"), the indication that something corresponding to the idea evoked by the noun may also be characterized in other terms strongly suggests that there could be more, but that there is actually one being spoken about now.

What I propose, then, is that by using [n] the speaker presents the idea evoked by the nominal phrase as "instantiated"; thus, the general interpretation of "[n] X" is, roughly, "instance of X", i.e., "spatio-temporally continuous piece of some 'universe', labelled X"; in other words: "a coherent whole that is called X". Thinking of an instance of a concept implies the possibility of thinking of it in more than one way; for one thing, "[n] X" is suggested to have boundaries, so it may be thought of in terms both of its extension, and of what is beyond its boundaries (of what is not, without incoherence, thought of as belonging to the same whole called X).

Notice that in this proposal [n] evokes the idea of an instance of a concept; it does not in itself mean that some instance exists. Thus, [n] evokes the idea of something characterizable in several respects, but nothing is implied about the actual existence or relevance of other respects. Suppose now that, because of other aspects of the sentence beyond the indefinite article, or because of the context or knowledge of the situation, it is actually assumed that the idea of some instance corresponds to something that exists (in 'some' world), i.e. that other

properties than the one named are actually relevant. Then we have a so-called specific interpretation of the indefinite noun phrase. Consider such well known pairs as (47) and (48):

- (47) Marie is met een Noor getrouwd
Marie is with a Norwegian married
"Marie is married to a Norwegian"
- (48) Marie wil met een Noor trouwen
Marie wants with a Norwegian marry
"Marie wants to marry a Norwegian"

In both sentences, the hearer is instructed by the indefinite article to think of the concept "Norwegian" as instantiated. Because of the rest of the contents of (47), it is furthermore implied that the idea "a Norwegian" meant here actually corresponds to some entity in the world, which is known to have other characteristics as well (although the speaker need not be able to provide any of them himself). Such an implication is absent in (48), so that the idea of the instantiated concept may indeed be taken to correspond to some specific entity, but it need not; the latter interpretation is the so-called non-specific use of the indefinite article. This means that whenever a non-specific interpretation is possible, a specific one is possible too, but that the reverse is not true: the situation with the non-specific use is simply that the utterance or its context do not suggest the presence of some aspect of interpretation beyond the meaning of the indefinite article itself, and a speaker and hearer are always free to assume such an additional interpretation to be inferrable.

There is yet another type of additional interpretation of an indefinite article. As we said, the use of [en] in itself only implies the possibility of other ways of characterizing the evoked instance, it does not necessarily imply that some other characteristics are actually relevant; the 'specific' use can then be described as the additional interpretation that some other properties are actually known. But now suppose that the rest of the contents of a sentence suggest that other possible properties of the evoked instance are actually not relevant at the speech moment. The resulting effect is that the hearer is instructed to think of an arbitrary instance of X, for if other properties are declared irrelevant,

differentiation of one instance of X from another is declared irrelevant. Then we have the so-called generic use of indefinite noun phrases. Consider (49):

- (49) Een eend heeft zwemvliezen tussen de tenen
 A duck has webs between the toes
 "A duck has webbed feet"

In the most plausible interpretation of the subject of (49), the hearer must think of the concept "duck" as instantiated, i.e. create a mental image of something that can be called "duck" in such a way that it also has other properties, but it is clear (somehow) that it actually does not matter what other properties; the sentence thus expresses that "a (typical) duck has webbed feet".

Notice that on this account specific and generic cases of indefinite noun phrases relate to non-specific cases as special types of usage, involving interpretations beyond the meaning of [n] (although diametrically opposed interpretations), to non-special usage. Thus, this account differs from, for example, Hawkins (1978), who regards generic "references" as "'non-specific' references in 'specific' contexts" (Hawkins (1978: 215)). The source of this confusion - as I see it - is the idea that non-specific usage, since it does not involve the idea that some specific other properties are relevant, denies the relevance of all other properties. This is neither necessary, nor correct, I think. Consider (48) again:

- (48) Marie wil met een Noor trouwen
 "Marie wants to marry a Norwegian"

Hawkins (1978: 204) (using the example Minna wants to meet a Norwegian) says that the non-specific reading "involves the selection of any singular object from the class of Norwegians, and the sentence asserts that Minna's desires will be fulfilled regardless of the selection". I do not think this is correct, however: a speaker of (48) may very well say that other properties besides being a Norwegian are also relevant, without him being committed to the belief that an entity with these properties actually exists; consider (48)':

(48)' Marie wil met een Noor trouwen, maar omdat hij ook nog bruine ogen en rood haar moet hebben, betwijfel ik of zij ooit aan de man zal komen

"Marie wants to marry a Norwegian, but since she also wants him to have brown eyes and red hair, I doubt whether she will ever get married"

According to the above approach, the non-specific reading is simply the one in which nothing is assumed with respect to the relevance of particular other properties, while what Hawkins describes is the reading in which it is assumed that the relevance of particular other properties is none. Thus, it is understandable that he takes the generic reading as a kind of non-specific reading.

It is a conceptual advantage of the present proposal that the two special usages of [*e.n*] appear as interpretive 'options' that are given with the meaning of [*e.n*]:³¹ this is more than just compatibility between these readings and the proposed meaning, as is the case with the analyses of, for example, Hawkins (1978) and Kirsner (1979). Both spend some energy in demonstrating that the general meaning of the article, according to their respective proposals, is also present in the specific and generic usages, but they hardly attempt to show that such usages are direct manifestations of the meaning of the indefinite article. Instead, these authors suggest that some notion of 'genericity' is independently given, and that the articles (both definite and indefinite) can be used to perform generic reference, the choice depending on the type of message the speaker wants to convey. Thus, Hawkins (1978: 214-221) operates on the assumption that there is a useful notion of genericity with both definite and indefinite 'manifestations', and Kirsner states: "to communicate them [= "generic messages" - AV] one will be obliged to pick, in each case, that meaning of those available within the article system which is the least inappropriate to precisely what it is that one wants to say" (Kirsner (1979: 61)).

Another advantage, I think, of the proposal that the meaning of [*e.n*] is "instantiated", is that it provides a basis for understanding the historical development. Since counting implies discriminating instances, it implies instantiation. Thus, the historical development may be viewed as involving the change of an implication of the use of the numeral [*e.n*] to the meaning of a new word-form which corresponds to a reduced variant of the form of the numeral.³²

The present proposal thus differs in some respects from certain other proposals. But this is not to say that the conceptual and descriptive contents of these approaches are totally different. Thus, Hawkins proposes that the meaning of the indefinite article is to provide "exclusive" reference of a description, "i.e. there are claimed to exist other objects which are excluded from the reference of an indefinite description" (Hawkins (1978: 17)). I do not think this is correct for all cases of indefinite descriptions, in view of such examples as (44) and (45), which were already discussed before.

- (44) De trein liep [@n] vertraging van tien minuten op
 The train sustained a delay of ten minutes PART
 "The train got ten minutes delayed"

- (45) Ik zal [@n] geweldige produktie moeten maken om het hoofd
 boven water te kunnen houden
 I will an enormous production have-to make in-order-to the
 head above water to be-able-to hold
 "I will have to produce an enormous amount to be able to keep
 my head above water"

For the same reason, I do not think Kirsner's characterization of "differentiation required" (cf. (1979: 45-47)) is in fact correct for all cases of indefinite noun phrases. Interestingly, the proposal by Balk (1963: 113) looks like a 'mixture' of Kirsner's proposal and mine: Balk suggests that [@n] has the effect of making it clear that the 'thing' to which the nominal description applies not only has the properties specified in the description, but also other properties distinguishing it from other exemplars of the same kind. Dropping the addition about "distinguishi-γ" would result in an idea that is virtually identical to my proposal, it seems. In abstract terms, the difference might be formulated as follows: the present proposal suggests that [@n] primarily says something about the idea evoked by the nominal description itself (it is to be thought of as instantiated, and therefore characterizable in more than one way), while several other proposals suggest that the primary function of [@n] is to say something about the relation between what the description applies to and other things.

Nevertheless, there is clearly a relation between the notions "instantiation", and "exclusiveness" or "differentiation". As I have

indicated before, what seems to be essential in all uses of the indefinite article is the fact that instances can be characterized in terms of more than one concept, and this is a necessary condition for differentiating one instance of a concept from another. What I wanted to emphasize above is that providing a necessary condition for some interpretation is not identical to evoking the interpretation. But the idea of differentiation does come up in cases where it is somehow important: if a speaker, by using [en], implies that something might be differentiated from others, and it is at the same time somehow important that such differentiation is made, then the natural conclusion will be that the speaker wants to evoke the idea of an instance as indeed differentiated from other instances. For example, since it is, in general, important to distinguish instances of human beings from each other, the use of an indefinite article with a noun like "student", denoting a concept that applies to human beings, will quite easily be taken as suggesting the idea of "a student" to the exclusion of other instances of the concept "student". This is not a general feature of all uses of the indefinite article, as the above discussion has already made clear, but one can imagine that it occurs readily in certain contexts, because much of our talking actually involves entities which are important to us as individuals, rather than as bearers of some property. But that does not alter the fact that we also talk, and just as easily, about 'things', the importance of which is precisely given with the content of a description, which is the most plausible view to take of indefinite expressions like [en] vertraging van tien minuten ("a delay of ten minutes") and [en] geweldige produktie ("an enormous amount (to be produced)"); and an analysis of the meaning of [en] must be applicable in such cases too.

4.2.2 Definite and plural NPs

So far we have tried to support the claim that [en] indicates that the idea evoked by a nominal description is to be interpreted as instantiated; we will now go on to compare [en] to the definite articles het ("singular neuter") and de (all other cases). The main difference seems to be that with a definite article, a speaker indicates that the idea evoked by the nominal description (the 'referent' of the NP) also plays some role 'outside' the state of affairs evoked with the clause in which the NP

presently occurs: the relevance of the referent of the NP thus extends beyond this immediately given state of affairs.³³ In contrast, an indefinite article does not indicate anything about whether the relevance of a referent is to be taken as limited to the evoked state of affairs or as extending beyond it: the latter might very well be the case in certain circumstances, as the so-called specific use of indefinites shows, for example. Thus, with respect to the meaning "extended relevance", the relation between the so-called definite and indefinite NPs can be characterized as an opposition between a 'marked' and an 'unmarked' category (cf. also Bakker (1971: 341)): in so-called indefinite NPs the meaning "extended relevance" is simply absent, it is not necessarily negated. Consider (49) and (50):

(49) De zoon van Smith is niet te benijden
 The son of Smith is not to envy
 "The son of Smith is not to be envied"

(50) Een zoon van Smith is niet te benijden
 A son of Smith is not to envy
 "A son of Smith is not to be envied"

As is well known, each of these sentences may be used to convey a range of messages, but a constant feature of possible interpretations of (49) is that, at the speech moment, the idea evoked by the nominal description is relevant in more ways than that the referent is not to be envied, a minimal assumption being that there is a son of Smith. Thus, (49) generally implies that Smith actually has a son, but (50) does not, though it may apply to situations in which it is known that Smith has a son. If (49) is not interpreted as having an existential presupposition (cf. expressions like de zoon van de koning "the king's son", or de eenhoorn, "the unicorn"), it still evokes the idea of some more or less extended 'framework' within which the same notion plays a known role (e.g., the constitution, a myth, a story, or simply the previous discussion). Thus, a definite description always involves an appeal to shared speaker-hearer knowledge about the proper 'framework' with respect to which the idea evoked by the definite description is relevant. Furthermore, since the definite article does not indicate any specific type of relation with respect to that framework (unlike a demonstrative or possessive pronoun, for example), it generally

refers "inclusively" (Hawkins (1978: 17)) to all objects within the framework to which the description applies: knowing the framework is sufficient for 'identifying' the referent.

Although it is true that indefinite NPs, not being marked for 'extended relevance', may evoke ideas that are, as a matter of fact, also relevant beyond the evoked state of affairs, their primary function ³⁴ still is to evoke ideas of which the relevance at the speech moment is limited to this evoked state of affairs. This may be viewed as the cause of the generally encountered idea that indefinite NPs are commonly used to introduce the ideas evoked by nominal descriptions into the discourse: if the speaker evokes an idea X, X is thereby in the discourse at the speech moment; if the speaker also says that X is presently relevant in no other respect than that of the presently evoked state of affairs, then the speaker in effect purports to introduce X into the discourse at the speech moment. If the present relevance of X is limited to the presently evoked state of affairs, X apparently was not in the discourse yet; but it is now, hence it is being introduced. We may say then that the concept of an idea being presented as 'new' information may be characterized in terms of a specific relation between the idea involved and the state of affairs in which it is presently said to play some role, rather than in terms of its status in the 'world' 'outside' the contents of the present utterance. Thus, there is clearly a parallel between this idea and the characterization of the idea of 'old' information (in so far as this is thought to have linguistic reflexes) in terms of independence with respect to an evoked state of affairs, which was provided in our discussion of pronouns (4.1.3.3). In my opinion, one advantage of this 'shift' is that it forces one to ask the question by what means a speaker marks something as relating in such-and-such a way to the evoked state of affairs, and thus emphasizes that an idea is presented as 'old' or 'new' information, rather than that it suggests that the status of elements in some ('real' or 'fictional') world determines how a speaker will (or should) talk about it.

Turning now to the relation between [n] and plural marking of nouns, note that if 'indefiniteness' is viewed as the unmarked member of an opposition (i.e. as the 'absence of marking of definiteness'), it does not define a grammatical category in a positive way: it occurs in NPs in which different kinds of other markings may be present or absent; specifically, it does not

imply that the construction [*@n*]+noun and a noun with (morphological) plural marking share a feature of meaning: in principle, both involve separate signs, [*@n*] signalling "instantiation", as argued, and plural morphology signalling "more than one". Thus, in this view, the marking of "instantiation" is absent in so-called indefinite plural NPs, just as much as the marking of 'extended relevance'. But since the meaning "more than one" implies differentiation between instances, and instantiation is a necessary condition for differentiation, as argued in the previous section, the meaning of plural involves instantiation by implication.³⁵ Still, [*@n*] and plural morphology are not viewed as manifestations of one linguistic category, but as two independent signs. This raises the question why, in general, they cannot be combined.

The answer seems to be that [*@n*] presents the idea evoked by the nominal description as internally coherent: as was indicated in the previous section, an instance of X is a "spatio-temporally continuous piece of some 'universe', labelled X", or "a coherent whole that is called X". Plural morphology, on the other hand, presents the idea evoked by the nominal description as divided, as 'distributed' over space and/or time (and in principle without a specification of 'boundedness' of the space or time involved). Thus, marking the idea evoked by a nominal description both with [*@n*] and with plural morphology generally results in a conflict: something is characterized as a coherent whole and as 'distributed' at the same time. In certain specific circumstances, however, it may very well be useful to present these seemingly 'contradictory' signs with respect to the same idea.³⁶

Firstly, it seems that this view presents a useful perspective on well known constructions like een groep mensen ("a group of people"), een aantal ondernemingen ("a number of enterprises"), een meter boeken ("a meter of books"), etc., in which a particular aspect is indicated with respect to which an idea that is presented as 'distributed' may at the same time be presented as a coherent whole: people are considered to constitute a coherent whole in forming a group, some enterprises are considered a whole for making up a certain number together, and some books are a whole from the point of view of the (supposedly continuous!) space they occupy on a shelf. It is not useful and not necessary, if this approach is adopted, to establish one of the nouns in such expressions as the head of the

construction, in order to 'predict' Agreement of the finite verb when such a construction occurs as the subject of a clause. Consider the following sentences (adapted from a corpus of newspaper reports):

- (51) Aldus staat er op het vliegveld Gatwick bij Londen een aantal ouderwetse waaghalzen klaar zoals alleen het Britse Gemenebest dat bij elkaar kan brengen
 "So at London's Gatwick airport, there's a number of old-fashioned dare-devils standing by, that only the British Commonwealth can succeed in bringing together"
- (52) Er bleven een aantal vragen over waarop de gemeenschappelijke commissies nader antwoord wensten
 "There remained [=plural] a number of questions which the joint committees would like to have answered more fully"

The finite verb in (51) is singular, the one in (52) is plural. A blindly operating, arbitrary rule of 'Agreement' would 'predict' that Agreement would always involve the noun in one of the two positions in such a construction (the one which is therefore considered the 'head'), so that one of the above two sentences is necessarily to be described as a mistake, i.e. as a phenomenon of a different nature than the 'correct' one. But if we consider the grammatical number of a finite verb as a linguistic sign of its own, indicating the speaker's assessment of the number of 'manifestations' of the process or state indicated by the verb, it becomes possible to explain the 'mistake' in the same terms as the 'correct' usage. Note that both (51) and (52) contain a complement clause relating to the subject, but the one in (51) clearly specifies the group as a coherent whole: it is referred back to with the singular demonstrative pronoun dat ("that") and it is said to be "brought together"; this tallies with the fact that the finite verb does not characterize the situation as involving several distinct manifestations of the same process or state. In contrast, the complement clause in (52) does not relate to the number of the questions, but to the questions themselves (in fact, to each of them), so that these are clearly distinct, and this tallies with the plural marking in the finite verb. ³⁷

Secondly, there is a specific way in which [n] may be used with a plural noun without any explicit indication of a specific respect in which the 'distributed' idea may be considered to constitute a coherent whole. Consider the following sentences:

(53)a Wat een sufferds zijn we toch!

What a fools are we PART

"What fools we are!"

b Wat zijn we toch een sufferds!

What are we PART a fools!

(54) Die man heeft een boeken thuis,... dat hou je niet voor mogelijk!

That man has a books at-home,... that hold you not for possible

"The books this man has at home,... you wouldn't believe it!"

(55) Een boeken dat die man thuis heeft,...!

A books that that man at-home has

"The books this man has at home, ...!"

All of these are 'exclamatory' sentences; by uttering such a sentence a speaker expresses an immediate response to an experience that is, furthermore, presented as somehow beyond his/her 'control'. The combination of signs indicating 'dividedness' on the one hand and 'coherence' on the other, without an indication of a specific 'point of view' from which this makes sense, results in a state of affairs being evoked by such sentences in which this point of view is completely evident, not created by the speaker, but rather 'forced' upon him by the situation itself to which he responds (though it is still the speaker who chooses to present a situation in this way, of course...).

This argument demonstrates that the combination of [ə] with a bare plural noun is suited for conveying the kind of messages that it actually does convey, but it does not yet demonstrate conclusively, I think, that this kind of 'exclamatory' message is the only kind that can result from this combination (as is in fact the case), so we cannot exclude the possibility that we have here a case of a specialized use of a construction, which is not completely determined by the meanings of the forms as such. ³⁸

Note, finally, that the assumption that [ə] and plural marking constitute two essentially independent signs also has consequences for the relation between the 'definite' and the 'indefinite' article. Since the 'definite'

article can be combined with plural nouns without any special effects, it is apparently the case that the 'definite' article does not signal "instantiation"; this is confirmed by the fact that the definite article can also be freely combined with a 'mass noun' like melk ("milk"), and that a combination like het konijn ("the rabbit") may be interpreted as evoking the idea of an instance of "rabbit" that is also relevant beyond the evoked state of affairs, as well as evoking the idea of the entire species as relevant beyond the evoked state of affairs, and also as evoking the idea of the 'substance' called rabbit as relevant beyond the evoked state of affairs (as in the sentence De vorige keer kregen we meer saus bij het konijn, "Last time we got more sauce with the rabbit", which need not evoke the idea of a coherent whole called "rabbit"). So with respect to "instantiation", the 'markedness' relation between the 'definite' and the 'indefinite' articles is reversed. The possibilities for a noun like konijn ("rabbit") thus amount to the following:

konijn "rabbit": any kind of structure is irrelevant; just the idea of "rabbit".

een konijn "a rabbit": marked for instantiation, unmarked for extended relevance; the idea of a coherent whole to be called "rabbit".

het konijn "the rabbit": marked for extended relevance, unmarked for instantiation; the idea of "rabbit" as, at the speech moment, also relevant in another respect than the one reported in the present utterance.

konijnen "rabbits": marked for plural, implying the possibility of differentiation between instances; the idea of "more than one rabbit".

een konijnen "a rabbits": marked for plural and for instantiation; the idea of "more than one rabbit" constituting "a coherent whole", in some immediately evident respect.

de konijnen "the rabbits": marked for extended relevance and for plural; the idea of "more than one rabbit", as also relevant in one or more other respects than the one reported in the present utterance.

Thus, een and de/het exclude each other, and both may in principle be freely combined with plural and non-plural nouns. The 'similarity' between

een konijn and konijnen (both labelled 'indefinite', traditionally) is an indirect result of the meanings of [en] and of plural morphology (the latter implying instantiation), and the absence of the meaning "extended relevance" in both cases.

4.2.3 (In)definiteness and comment modification

Summarizing the results of the previous sections, we have argued that in Dutch three signs are related to the area of indefiniteness and definiteness: the 'indefinite' article [en], meaning "instantiation"; the 'definite' articles de and het, meaning "extended relevance"; and plural marking of nouns, meaning "more than one". In principle, the signs for "instantiation" and for "extended relevance" may both be combined freely with plural marking, but the bare combination of "instantiation" and "more than one" results in a rather special type of message. If an NP has an indefinite article or is marked plural, there is always some idea of instantiation, thus of the possible relevance of other properties than the one(s) provided in the nominal description itself. One special type of interpretation is present when one or more of these other properties are actually known (resulting in a so-called specific interpretation), and another when the nature of other properties is irrelevant (resulting in a so-called generic interpretation); when no such additional assumption is present, the interpretation of the indefinite NP is called 'non-specific'. Because the idea of "extended relevance" is absent in indefinite NPs, their primary function is to name entities the relevance of which is, at the speech moment, limited to the evoked state of affairs (cf. 4.2.2), i.e. to evoke the idea of something not discussed before, thus introducing it.

Let us now reconsider some phenomena of the type that we presented earlier in relation to the discussion within the generative framework on the question of which constituent should be considered to be 'moving', the NP or the adverbial (the examples in (57) are identical to those in (20) in 3.2.2). All examples in this section are to be read with the last accent, hence the comment, somewhere to the right of the comment modifier (the special case of the last accent, hence the comment, to the left of a comment modifier will be discussed in chapter 5; cf. 4.1.3.2).

- (56)a Zij moest kennelijk een vriend van haar naar huis brengen
 She had-to apparently a friend of her to home take
 "She apparently had to take a friend of hers home"
- b Zij moest een vriend van haar kennelijk naar huis brengen
 She had-to a friend of her apparently to home take
 "A friend of hers apparently had to be taken home by her"
- (57)a Daarom moet hij waarschijnlijk een grotere computer huren
 Therefore must he probably a bigger computer rent
 "Therefore he will probably have to rent a bigger computer"
- b Daarom moet hij een grotere computer waarschijnlijk huren
 Therefore must he a bigger computer probably rent
 "Therefore he will probably have to rent a bigger computer"

As has been noted, the indefinite NPs in the b-sentences cannot be interpreted non-specifically; the one in (56) is preferably taken as specific, the one in (57)b as generic. Thus, a speaker of (56)b is implying that there actually is someone who may be called "a friend", and the issue he raises is that it appears that this person had to be brought home, while a speaker of (56)a is not committed to the belief that there will eventually turn out to be someone who may be called "a friend". And (57)b is interpreted as "For any computer beyond a certain capacity, he will not be able to buy one, so he will probably have to rent it".

Partly similar phenomena may be observed in examples with indefinite plurals; consider (58) and (59):

- (58)a Het is misschien al eens met witte muizen geprobeerd
 It is perhaps already PART with white mice tried
 "Perhaps it has already been tried with white mice"
- b Het is met witte muizen misschien al eens geprobeerd
 It is with white mice perhaps already PART tried
 With white mice, it has perhaps already been tried"

- (59)a Je zult helaas altijd zieken moeten verzorgen
 You will unfortunately always sick-people have-to look-after
 "Unfortunately you will always have to look after sick people"
- b Je zult zieken helaas altijd moeten verzorgen
 You will sick-people unfortunately always have-to look-after
 "Sick people you will unfortunately always have to look after"

There is a difference between the interpretation of (58)a and that of (58)b which can be described in terms of the generalizations on comment modification - although it is not a difference between a 'non-specific' and a 'specific' interpretation of the object NP: (58)b presents the idea of white mice as already somehow given, independently of the state of affairs evoked by the sentence, but without the inference that some specific set of white mice is intended: ³⁹ it is readily interpreted as suggesting that there has been prior discussion of (white) mice, without any necessity to take the sentence as applying to a specific set of white mice or to any arbitrary set of white mice. Thus, it differs from the cases of singular indefinite NPs discussed so far, but it can still be described in the same terms, in that the idea evoked by the nominal description is presented as somehow given, independently of the presently evoked state of affairs. Example (59)b is on a par with (57)b. It says something like "As for sick people, you unfortunately just have to accept the fact that they need to be looked after", "the need for care simply goes with sickness"; in other words, the indefinite NP is interpreted generically. We see then that the occurrence of an indefinite NP to the left of a comment modifier generally leads to an 'additional' interpretive aspect beyond the meanings of the element(s) constituting the NP. There is, furthermore, a similarity between these additional readings, in the sense that the ideas evoked by the NPs are presented as given independently of the evoked state of affairs; this does not only hold for the interpretation as 'specific', but also for the 'generic' readings: the ideas of "any bigger computer" and of "sick people in general" are presented as independent of what they are related to in the present sentences.

We may say then that the earlier generalizations on comment modification are clearly confirmed again: if an indefinite NP occurs to the left of a comment modifier, the idea it evokes cannot be interpreted as being

introduced at the speech moment, since it cannot be a part of the comment, which is to the right of the comment modifier. Hence these ideas are interpreted as being somehow given, independently of the presently evoked state of affairs. Thus, such an order of elements results in an aspect of interpretation beyond the meaning of [@n] and of plural marking, a usage of indefinite NPs that is felt to be somewhat special: since indefinite NPs are unmarked for 'extended relevance', their primary function is to evoke the idea of something as not (yet) otherwise relevant, thus introducing it into the discourse (cf. 4.2.2 for discussion).

Note that this combination of a specific semantic analysis of the 'article system' and a description of sentence adverbials in terms of comment modification, both of which are independently motivated, in fact provides an immediately applicable description of the interpretation as 'specific' of een vriend van haar ("a friend of hers") in (56)b: this sentence may be paraphrased as "there was some friend of hers, and apparently she had to take him home"; it presents the idea of "a friend of hers" as given, which results in the interpretation that some specific friend is being talked about. The interpretation of (56)a does not necessarily involve such a presupposition, since the idea evoked by the indefinite NP may be interpreted as being introduced into the discourse. It seems that in cases like these the interpretation of specificity can be completely reduced to the combination of the factors indicated, i.e. there is no need to assume "specificity" as one of the features of the meaning of indefinite NPs.

Another possible result of the presentation of the idea evoked by an indefinite NP as not being introduced into the discourse is an interpretation as generic, as in (57)b. This can be understood as follows. The fact that it is not being introduced implies that an idea evoked by "a bigger computer" must be interpreted as somehow given independently of the presently evoked state of affairs (a common aspect of specific and generic readings, as noted above). In this case, the inference is that any other aspect than the one provided with the nominal description itself is irrelevant for understanding what the speaker is talking about. This idea, the generic idea of 'arbitrary instance of "bigger computer"', is indeed independent of the presently evoked state of affairs, because it is independent of any specific state of affairs: it is given with the knowledge of the linguistic elements involved. Thus the idea of an instance

of X, perceived independently of the evoked state of affairs, allows for two types of inferences: the idea may be interpreted as being perceivable in terms of some other, specific state of affairs than the one evoked by the present utterance (which gives rise to a specific reading), or it may be interpreted as being perceivable independently of any particular state of affairs, including the one evoked by the present utterance (which gives rise to a generic reading). The status of an indefinite NP in the 'information structure' of an utterance can thus be said to be one of the factors in determining whether the NP is to be taken as used in one of the 'special' ways that were established in 4.2.1.

The differences between the non-specific use on the one hand, and the generic and specific uses on the other, can therefore be analyzed as consequences of, firstly, the meaning of the indefinite article and the absence of the definite article, and, secondly, the answer to the question whether the NP is to be taken as belonging to the comment of the utterance or not. The difference between generic and specific usage, on the other hand, does not seem to be related to 'syntactic' phenomena like word order, as far as I can see, but rather involves 'standard' views about the ideas evoked by the lexical elements in the sentence, as well as the context of the present utterance. The indefinite NP in (56) evokes the idea of a human entity related to a particular person (referred to by the personal pronoun haar ("her")), so it is not at all strange that an interpretation as 'specific' is preferred in (56)b. The indefinite NP in (57) is different in this respect, and the predicate is modal so that the sentence is not interpreted as reporting an event, which would necessarily involve specific entities; hence it is understandable that the sentence is easily interpreted as involving the idea of 'anything' to which the description "bigger computer" applies. Note that the context may also be relevant in suggesting a generic rather than a specific reading: (57)b may very well be used in a discussion about one or more specific 'bigger computers'; precisely the fact that a speaker of (57)b only evokes the idea of an instance of "bigger computer" rather than the idea of "bigger computer" as "extendedly relevant" would then contribute to the suggestion that the idea is only relevant as "bigger computer" and nothing else. However, there seem to be no absolute 'rules' in this area. For example, it is not the case that NPs with the 'feature' [+human] are preferably interpreted as specific when to the left of a comment modifier; the object in (60)b is interpreted

as generically rather than specifically: 40

- (60)a Daaronn moet hij waarschijnlijk een hogere functionaris
schrijven
Therefore must he probably a higher official write-to
"Therefore he probably has to write to a higher official"
- b Daaronn moet hij een hogere functionaris waarschijnlijk
schrijven
Therefore must he a higher official probably write-to
"A higher official he therefore probably has to write to"

Note that the contents of verbs and objects are relevant here in the same way as was discussed in 4.1.3.4. Thus, in a sentence with an indefinite object NP to the left of a comment modifier, the comment appears to be just as much 'restricted' to the material to the right of the adverbial as would be the case with a definite object NP to its left; hence the same phenomenon may be observed, that when the idea evoked by the verb is a 'standard' one, and therefore more or less expected, the sentence is interpreted as more or less special. Compare (61) with (37)a (cf. 4.1.3.4):

- (61) ^xZe hebben een auto vermoedelijk gekocht
They have a car presumably bought
"Presumably they've bought a car"
- (37)a ^xZe hebben de auto vermoedelijk gekocht
They have the car presumably bought
"Presumably they've bought the car"

In contrast, a sentence like (62), with zal weigeren ("will reject") as predicate, is completely 'normal' with een auto ("a car") to the left of the comment modifier; the NP is interpreted generically, the sentence being paraphrasable as: "He will presumably reject anything that is a car" (for example, when discussing how someone will react to a supposed reward, and it is known that he does not drive).

- (62) Hij zal een auto vermoedelijk weigeren
He will a car presumably reject
"He will presumably reject a car"

Note, however, that if the necessary information is provided by the context, generic indefinite NPs can also occur to the left of comment modifiers with predicates that are more or less to be expected:

- (63) Ik geef Jan maar een boekenbon, omdat hij een auto
waarschijnlijk weer zou verkopen
I give Jan PART a book-token, because he a car probably again
would sell
"I'll give Jan a book-token, for a car he would probably sell
again"
- (64) Vroeger heeft men een auto waarschijnlijk wel eens voor een
appel en een ei verkocht
Formerly has one a car probably PART once for an apple and an
egg sold
"In former days, one probably sometimes sold a car for next
to nothing"

Thus, it is sometimes necessary, or at least useful, that it be somehow clear in what respect the 'news' provided by some utterance is 'unexpected' in a certain context, if a sentence is to be naturally interpretable. This may be regarded as the source of the misconception that an indefinite NP to the left of a comment modifier renders the sentence 'ungrammatical' (the discussion in De Haan (1976) suggests this, for example; cf. De Haan (1976: 282)). As long as one sticks to examples of sentences about human beings referred to by proper names as subjects, inanimate things referred to by unmodified indefinite nouns as objects, and relations between them of a kind that are more or less to be expected ("John-bought-a-car sentences"), one runs the risk of not getting a good picture of the proper role of factors like word order and accentuation.

The previous discussion has made it clear that it would be quite beside the point to formulate generalizations about the preferred position of an indefinite NP with respect to a sentence adverbial on the limited basis of such simplified cases, as they hardly reflect the rich and subtle possibilities of the language. In general, several discussions of the relation between word order and interpretation involving phenomena of this kind have oversimplified matters in more than one direction. Thus, we not only find the suggestion 'indefinite NPs are not normally possible before sentence adverbials', but also 'pronouns are not normally possible after sentence adverbials' (Booij (1974: 637), cf. 4.1.3.3). Implicitly, these

ideas also suggest that 'non-pronominal definite NPs make no difference before or after a sentence adverbial'.

Indefinites and pronouns have so far been considered extensively. To conclude this section, we will now also consider definite NPs in different positions in some more detail.

Recall with respect to definite NPs that we also postulated the idea of comment modification for the first time on the basis of observed differences of interpretation between sentences with definite NPs either to the right or to the left of a comment modifier (cf. 4.1.1); and in 4.1.3.4 we came across examples showing that definite NPs do not at all 'move' as 'freely' as one might think on superficial inspection: if the relation of (the contents of) a verb to (the contents of) an object is more or less to be expected, then a sentence with the object to the left of a comment modifier is somehow special. It is true that there is a difference with indefinite NPs, in that there is no need to take the NP itself as being used in a special function -- different from its primary function -- as is the case with indefinite NPs. Nevertheless, there are cases where definite NPs show a difference of interpretation similar to indefinite ones, depending on the position with respect to a comment modifier. Consider (65):

- (65) Hij weet de zwakste leerlingen te motiveren
 He knows the weakest pupils to motivate
 "He is able to motivate the weakest pupils"

This sentence has two readings. In one, it is inferred from the superlative contained in the direct object that the referent of the subject is able to motivate any pupil ('If he is able to motivate the weakest pupils, it may safely be concluded that he can motivate better pupils, too'). The second reading is the one which simply lacks this inference: there is nothing in (65) itself that prevents it from being taken as only evoking the idea that 'he' is able to motivate the weakest pupils, without an implication about his ability to motivate other pupils (cf. Fauconnier (1975) for general discussion of this phenomenon).

With the first ('generalized') reading, it is not necessary that there is a

somehow identifiable set of weakest pupils in the previous conversation or in the context. In other words, at the speech moment the idea of "the weakest pupils" need not be given independently of the content of the present utterance, for the relevance of the idea does not consist in its identifying a referent, but rather in its being a 'pars pro toto' with respect to the idea evoked by "motivate". If a referent of the NP is known, it might still be the case, of course, that the NP is actually used in order to evoke the generalized idea, but if there is no referent, the latter interpretation is the only one possible.

Now consider (66) and (67), with the direct object to the right of a comment modifier in the a-cases and to the left in the b-cases:

(66)a Hij weet gelukkig de zwakste leerlingen te motiveren
 He knows fortunately the weakest pupils to motivate
 "Fortunately, he is able to motivate the weakest pupils"

b Hij weet de zwakste leerlingen gelukkig te motiveren
 He knows the weakest pupils fortunately to motivate
 "Fortunately, he is able to motivate the weakest pupils"

(67)a Hij ziet misschien de fraaiste kansen over het hoofd
 He sees perhaps the best chances over the head
 "He may overlook the best chances"

b Hij ziet de fraaiste kansen misschien over het hoofd
 He sees the best chances apparently over the head
 "He may (will perhaps) be overlooking the best chances"

These sentences differ in the degree to which they allow for the inferential, generalized interpretation of the direct object: it is obviously possible in a, but not so obvious in b, in both cases; i.e. (66)a is preferably interpreted as meaning "Fortunately, he is the kind of teacher who is able to motivate all his pupils, the weakest ones included", while (66)b is interpreted as "As for the weakest pupils, he fortunately is able to motivate them", with no clear suggestion that he would also be able to motivate other pupils. Similarly, (67)a does not necessarily imply the existence of an identifiable set of "best chances", while (67)b does; the

former thus suggests the generalized reading ("He may be the kind of person who overlooks all chances, the best ones included") far more strongly than the latter, which is more readily interpreted as "As far as the best chances are concerned, he may very well be overlooking them". This can be understood in terms of our generalizations on comment modification (which are thereby confirmed once more). In the sentences with the object NP to the left of the comment modifier, this NP does not belong to the comment and is thus not introduced into the discourse, only the ideas of "motivating" and "overlooking" are (respectively). The ideas evoked by the NPs are therefore to be interpreted as given independently of the presently evoked state of affairs, while the ideas evoked by the respective verbs are introduced with the present utterances. This order of elements thus does not suggest that the ideas of "the weakest pupils" and "the best chances" should be generalized to "all pupils" and "all chances". With the objects to the right of the comment modifiers, there is such a suggestion: in that position, the comment may consist of the ideas of "motivating the weakest pupils" and "overlooking the best chances", respectively; the ideas evoked by the NPs need not be taken as independently given, so their relevance need not consist in identifying a known referent, which suggests a generalization of the interpretation.

Concluding this section, we may say that there appears to be a constant element in the interpretation of sentences with an NP, indefinite or definite, to the left of a comment modifier, namely the NPs are interpreted as evoking ideas that are somehow given independently of the evoked state of affairs, while they need not be interpreted in that way when to the right. Concrete ways in which this aspect of interpretation is manifested in different sentences can be described in terms of our generalizations on comment modification and certain analyses of the meanings and usage of the elements involved, with interpretive differences beyond the constant interpretive aspect resulting from the difference between the actual elements used.

Again, there is one important 'exception': when the comment modifier is itself the last element in an expression, an NP to its left - for example an indefinite one as in Ze hebben een auto gekocht, vermoedelijk ("They have bought a car, presumably") - need not be interpreted as somehow given independently, but it may simply belong to the comment. Thus, this

'exception' is of the same type as other 'exceptions' that we have encountered before: sometimes the comment may occur to the left of a comment modifier, showing that it is not the immediate function of the adverbials involved to indicate that the comment is to the right of them, and thus suggesting that some more principled explanation must be found.

4.3 Comment modifiers and subjects: provisional remarks

So far we have actually only been considering the effects of 'variation' in the order of an NP and a comment modifier with object NPs, which is partly a consequence of the temporary limitation of the discussion to the so-called middle part of sentences (cf. 4.0). But there are also some specific issues to be considered in the case of the order of comment modifiers and subjects relative to each other. Although it is true that 'sentence adverbials' may occur to the left of subjects 'in the underlying order' (roughly: the order of subordinate clauses, cf. 3.1), it has already been observed by Booij (1974) that they do not occur in that position as easily as elsewhere in the clause (cf. also Koster (1978: 15)). In a footnote, Booij states that the degree of acceptability of such cases also depends on the nature of the subject. He gives the following examples:

- (68)a ??... dat waarschijnlijk Jan zijn broer sloeg
 that probably Jan his brother beat
- b ... dat waarschijnlijk iedereen zijn broer sloeg
 that probably everyone his brother beat
 "... that probably everyone beat his brother"
- c ... dat waarschijnlijk iemand zijn broer sloeg
 that probably someone his brother beat
 "... that probably someone beat his brother"

Apparently, the acceptability of the order comment modifier - subject increases accordingly as the subject NP does not evoke the idea of an established discourse referent: the proper name in (68)a is far more likely to evoke the idea of such an established referent than the indefinite pronouns in (68)b and c. This clearly suggests some similarity to the phenomena we have been discussing so far. There is a difference, however,

between subjects and objects in clauses that contain both. First, consider the strings in (69):

- (69)a Dan heeft Piet misschien Marie gezien
 Then has Piet perhaps Marie seen
 "Then Piet has perhaps seen Marie"
- b Dan heeft misschien Piet Marie gezien
 Then has perhaps Piet Marie seen

Both the subject and the object in (69) are proper names, but the adverbial misschien ("perhaps") may occur to the left of the object without any problem ((69)a), while it may not occur that simply to the left of the subject: (69)b is 'strange' with the last accent on Marie or gezien, and contrastive with the last accent on Piet (we will return to this fact below). So we cannot just say that comment modifiers are somehow 'problematic' to the left of proper names, in order to account for the strangeness of (68)a, for that would be too general, in view of (69)a. Furthermore, it is generally easier to construct examples with the order comment modifier - subject if there is no object NP in the clause. Thus, (70)a is 'better', more readily interpretable than (70)b; the first is perfectly 'normal', for example, when interpreted as introducing the idea of 'the President having died' into the discourse as a whole (with the last accent on president), while (70)b is contrastive with the last accent on president, and somewhat 'strange' otherwise (but not impossible in spoken language):

- (70)a Dan is waarschijnlijk de president gestorven
 Then is probably the President died
 "Then probably the President died"
- b Dan moet waarschijnlijk de president de wet nog tekenen
 Then must probably the President the bill still sign

Let us first see how the analysis of the previous sections would apply to subject NPs. In terms of that analysis, the position of the subject of a clause to the right of a comment modifier suggests that it should be possible to take the idea evoked by this NP as belonging to the comment,

either together with other elements, as an 'integrated' part of the comment (cf. 4.1.3.3), or as constituting the comment on its own. In the latter case, the last accent of the sentence must be on the subject; (71) and (72) illustrate this possibility:

- (71) Dan heeft misschien Piet Marie gezien
 Then has perhaps Piet Marie seen
 "Then perhaps Piet has seen Marie"
- (72) [Dat betekent,] dat vermoedelijk hij dat gerucht heeft
 verspreid
 [That means,] that presumably he that rumour has spread
 "[That means,] that presumably he has spread that rumour"

In these cases, the description that was developed in terms of cases involving object NPs appears immediately applicable to subjects too: a sentence with a comment modifier to the left of 'even' a pronominal subject is immediately interpretable if this subject bears the last accent; both the order of the elements and the accentuation of the sentence indicate that the idea evoked by the subject is to be taken as being introduced into the discourse. This still does not alter the fact, however, that such sentences are somehow more 'special' than those with a comment modifier to the left of an accented object: (71) is contrastive, but (69)a' is not:

- (69)a' Dan heeft Piet misschien Marie gezien
 Then has Piet perhaps Marie seen

Turning now to the possibility of integrating the subject into the comment, it should be noted that a complication arises in that the number of NPs indicating participants in the evoked state of affairs may be a factor influencing this possibility. For example, it is argued in Kirsner (1979: 148) that the presence of two explicitly mentioned participants (i.e. an 'object' besides a 'subject') strongly disfavours 'backgrounding' of the subject-referent (the referent of the NP agreeing with the finite verb), because such a subject is necessarily interpreted as relatively agentlike and agents generally correspond to the 'main characters' of a discourse, which are already in the attention of the speaker and his hearers, and thus not normally part of the comment.⁴¹ This has consequences with respect to the ordering of subjects relative to comment modifiers: the presence of two

participant NPs in a sentence would suggest that the subject does not belong to the comment, while the order comment modifier - subject would suggest that the subject could be part of the comment. Thus, without some further indication (like last accent on the subject-NP), such an ordering would easily give the impression of being incoherent. If there is only one participant NP (a subject) in a sentence, this does not suggest a particular status of the idea evoked by that NP with respect to the information structure of the utterance, and then the word order is a useful way of indicating that this idea could or could not be a part of the comment, without incoherence. This would make sense out of the observation that it is relatively easier to construct 'intransitive' examples of a comment modifier preceding a subject than 'transitive' ones. It also suggests that, in actual language use, the order 'Adverbial precedes subject' would tend to occur more often in clauses that do not contain an object. A first confirmation of this idea can be extracted from data in Nieuwburg (1968). He presents 62 cases of one or more adverbials preceding the subject in the middle-part of main clauses; only two of them contain a direct object, i.e., little more than 3 %, while the average number of clauses with both a subject and a direct object can be calculated as about 30 %. ⁴² As another example, consider the fact that of the 39 clauses with this order in the novella Het behouden huis by W.F. Hermans (1951), none contains a direct object (the average percentage of clauses with a direct object is a little less than 30). A tentative search in the so-called Eindhoven corpus (cf. Uit den Boogaart (1975)) gives similar results: the first 1000 periods of the sub-corpus of newspaper texts contain (at least) 80 clauses with an adverbial preceding the subject in the middle part, and only 4 of these contain a direct object NP. ⁴³

Although provisional, these observations clearly point in the same direction as the earlier observation that it is 'easier' to construct intransitive examples with an adverbial preceding the subject (in the middle part of clauses) than transitive ones. Consider an example:

- (73) [Dan vergeten we even alle bijbaantjes,] hoewel daar
natuurlijk een stroom anekdotes over te verhalen zou zijn
[Then forget we for-a-moment all jobs-on-the-side,] although
there of-course a stream anecdotes about to narrate would be
"[Let's forget about all jobs on the side for a moment,]
although, of course, a stream of anecdotes could be told about
them"

An intransitive sentence like this is not used to report an action performed by one entity with respect to another one. Rather, it is used to convey the message that a certain situation is the case; what this situation is is identified by the ideas evoked by the subject and the predicate together: what the speaker (temporarily) introduces into the discourse is the idea of "a stream of anecdotes to be told". That sentences with a direct object are not generally used in this way is more or less understandable in terms of Kirsner's characterization presented above: in such 'transitive' clauses, the subject is generally agent-like, and agents of clauses generally correspond to topics, so they are not generally introduced into the discourse (they are there from the beginning). But there is definitely more to be said about this relation, and we will return to it in chapter 6.

This view is also supported by the fact that it enables us to gain a better understanding of a phenomenon noted at the beginning of this section: in sentences that do contain a direct object, it may be possible and useful to have an adverbial preceding the subject without 'contrast' if the subject is an indefinite pronoun; consider (68)b and c (repeated here for convenience), and also (74):

- (68)b ... dat waarschijnlijk iedereen zijn broer sloeg
 that probably everyone his brother beat
 "... that probably everyone beat his brother"
- c ... dat waarschijnlijk iemand zijn broer sloeg
 that probably someone his brother beat
 "... that probably someone beat his brother"
- (74) Dus wilde helaas niemand zijn auto van de hand doen
 So wanted unfortunately no-one his car from the hand do
 "So unfortunately, no one wanted to part with his car"

These indefinite pronouns are not normally used to refer to specific entities, and in the case of niemand ("no one"), this even seems impossible. So even though there is a direct object in each of these sentences, their primary interpretation is not that of reporting some action performed by one entity with respect to another, but rather to

convey that certain situations are (or were) the case, that some state of affairs (whether the world of the speech situation or something else) is to be characterized in the terms provided by the present sentence. Note that the use of such sentences does not so much contribute to the development of the flow of events in a story, but rather provides background information, an intermediate summary, or something like that. The contents of these indefinite pronouns, then, involve the possibility of integrating them into the comment without contrast, because they do not easily count as evoking the idea of established discourse topics: only in special circumstances could one tell a story 'about' the referents of iemand ("someone") and iedereen ("everyone"), and it seems virtually impossible in the case of niemand ("no one"). Thus, although further clarification about the relation between 'transitivity' and 'comment modification' is needed, it is clear that the notions developed in this chapter are also relevant to the analysis of the relative order of subjects and sentence adverbials.

4.4 Adverbial classification revisited

Recall that within the framework of transformational grammar the generalization was formulated that so-called predicate adverbials do not precede so-called sentence adverbials (cf. 3.1). Consider the examples in (75) (equivalent to (1) and (2) in chapter 3) and (76):

(75)a Piet heeft het blijkbaar met veel ijver aangepakt
 Piet has it evidently with much diligence handled
 "Piet evidently handled it very diligently"

b ??Piet heeft het met veel ijver blijkbaar aangepakt
 Piet has it with much diligence evidently handled

(76)a Vader zal hem waarschijnlijk streng toespreken
 Father will him probably severely speak-to
 "Father will probably speak to him in a severe manner"

b ??Vader zal hem streng waarschijnlijk toespreken
 Father will him severely probably speak-to

The use of a predicate modifier means that the way in which an action, process, state (or whatever else may be denoted by a verb) occurs is not left unspecified, so that the speaker explicitly excludes other ways in which it might occur. Thus, predicate modifiers induce the idea that a consideration of alternative ways of occurring is relevant because one way is explicitly specified: by saying that a process (for example, handling in (75), or speaking in (76)) occurred in a specific way, one implies that it is at least thinkable that the process could have occurred in another way, i.e. that a consideration of alternative ways is relevant. Thus we have here a situation that is similar in some relevant respects to the situation we considered in 4.1.3.4 involving the role of the semantics of objects and verbs: elements that provide relatively specific information evoke the idea of the relevance of alternatives, and therefore tend to be in the 'scope' (to use Keijsper's (1985) term) of an accent, and are particularly useful for helping to recognize pieces of information that are not easily identified in the speech situation, hence information that is introduced with the present utterance. In effect, we are saying that it is to be expected that predicate modifiers tend to belong to the comment. In sentences that do not contain a comment modifier, like (77) and (78), the predicate modifier is indeed normally interpreted as introducing the idea it evokes, together with the idea evoked by the main verb (the readings with only the processes denoted by the verbs taken as comment are contrastive):

- (77) Piet heeft het met veel ijver aangepakt
 Piet has it with much diligence handled
 "Piet handled it very diligently"
- (78) Vader zal hem streng toespreken
 Father will him severely speak-to
 "Father will speak to him in a severe manner"

Note, incidentally, that this reasoning in fact applies generally to modifying constituents, not only adverbial, but also adjectival ones; and in Thompson (1985) quantitative evidence is presented that one of the two main functions of adjectives in spontaneous conversation is indeed to introduce an entity as a new discourse topic, the first being to predicate something of an established discourse topic.⁴⁴ In the English

conversational data examined by Thompson, 79 % of the adjectives functioned to predicate something of an established referent, and 21 % to introduce a new referent (an example of the latter function is We used to do some awful things though (Thompson's (26)), where awful serves to introduce a new referent, rather than to provide 'additional' information about an already established referent).

In terms of our generalizations on comment modification, another consequence of the reasoning above is that predicate modifiers tend to occur to the right of sentence adverbials, taken as comment modifiers. What is 'strange' then, in the b-cases of (75) and (76) above, is that the information provided by the predicate modifiers cannot be part of the comment, because they are to the left of the comment modifiers. Thus, there seems to be a reason for the phenomenon that provides the basis for the generalization that predicate adverbials do not precede sentence adverbials. On the other hand, if this is the correct explanation of the generalization, we do not in fact expect that this ordering will be absolutely obligatory, rather it should be possible that, given certain specific circumstances, a predicate adverbial occurs to the left of a sentence adverbial, i.e. we expect a pattern of possible orderings and related interpretations similar to the pattern we found with indefinite NPs and sentence adverbials. Thus, consider (76)b again:

(76)b ??Vader zal hem streng waarschijnlijk toespreken
 Father will him severely probably speak-to

In fact, this sentence does have an interpretation, although a rather strange one; but if it is to convey anything, the message must be something like "Among the things father will definitely do with respect to him, the action that will be performed in a severe manner is to speak to him (probably)"; i.e. something in the discourse is contrastively picked out as "severe", and this is then said to consist of, probably, "speaking" (to him), the idea of "severely" being presented as perceivable independently of the idea of speaking, which is presented as the 'news' of the sentence. Of course, this still does not make much sense, as it is still quite unclear what kind of situation such an utterance could sensibly apply to. Nevertheless, this description of what the 'strangeness' of (76)b actually consists of suggests what kind of utterances with this ordering of

predicate modifier and comment modifier could make sense: those in which the predicate modifier picks out some specific aspect of the situation in a contrastive way, to which the comment may be sensibly applied. Consider (79) - (81):

- (79) Destijds joeg men met pijl en boog waarschijnlijk op konijnen
 At-the-time hunted one with arrow and bow probably at rabbits
 "With bow and arrow one probably hunted rabbits in those days"
- (80) Ik geef toe dat Piet op die manier zijn kansen helaas zal
 verspelen
 I admit that Piet in that way his chances unfortunately will
 play-away
 "I admit that in that way, Piet will unfortunately ruin his
 chances"
- (81) Maar ze kunnen machinaal gelukkig nog geen kunstwerken
 vervaardigen
 But they can mechanically fortunately yet no works-of-art make
 "But mechanically they are fortunately not yet able to make
 works of art"

These sentences are fully acceptable. They all share the property that certain features of a context in which they would be appropriate are suggested by the very content of the sentence. Thus, (79) suggests that the discourse involves a discussion of the use of certain instruments, bows and arrows among them, in former times by, say, some 'primitive' tribe; with (79) the speaker distinguishes, in using a predicate modifier, a particular instrument from other established discourse topics, and then goes on to say that the hunting in which it was used probably concerned rabbits. We may say then that the use of the predicate modifier still involves the relevance of alternatives, though in this case not because the manner denoted is part of what the speaker introduces into the discourse, but because it serves to select a specific element from the topics of the discussion. In other words, the characterization of the pragmatics of predicate modifiers that we presented at the beginning of this section is also fully applicable to this case, although it suggests a somewhat more special context, one in which the idea of "bow and arrow" may reasonably be said to be given independently of the idea of "hunting" (another appropriate situation for using (79) could be a guided tour in a historical

museum with an exposition of bows and arrows, among other things).

Similar comments apply to (80) and (81): the former suggests that the way Piet might possibly behave in a certain situation (for example, in applying for a job) has been a point of discussion between the speaker and his interlocutor, with the speaker admitting now that one specific type of behaviour which has been suggested, say, as being expected from Piet, will lead to a regrettable, negative outcome; in the same way, the context suggested by (81) involves a discussion of things that can be done mechanically and others that cannot.

In all three cases, the predicate modifier will easily get an accent when the sentence is pronounced, which is in fact to be expected: we said that the use of a predicate modifier, providing a specification of the way something occurs, induces the idea that a consideration of alternative ways of occurring is relevant (which need not be present if a verb is used without any such specification), and this accords with the general semantic feature of all types of accent: the idea evoked by accented material is an alternative which is relevant in the speech situation (cf. 4.1.2, also 4.1.3.4). In fact, a particularly illuminating way of pronouncing such strings is with a rise on the predicate modifier and a fall somewhere to the right of the comment modifier, thus producing a so-called hat-pattern, as in (79)', for example:

(79)' Destijds joeg men met pijl en boog waarschijnlijk op konijnen
 "With bow and arrow one probably hunted rabbits in those days"

The accentuation of (79)' in effect says that the idea of "bow and arrow" is a relevant alternative (general meaning of accent), that something else is yet to follow (specific meaning of rise), and that the idea of "rabbits" is to be added to the common body of knowledge (as planned by the speaker), which is in accordance with the proposals in Keijsper (1985) for the specific meanings of the accents involved (cf. 4.1.2).

As we have seen, a general consequence of positioning an element to the left of a comment modifier is that it cannot be integrated with the material to the right, in the sense that it is not introduced into the

discourse together with this other material. In the specific case of predicate modifiers, this means that the idea evoked by them is presented as recognizable independently of the idea of the process or state evoked by the verb. Thus, although the qualification as "predicate modifiers" remains fully valid,⁴⁵ they nevertheless function differently when to the left of a comment modifier. In that case, they provide an independent specification of a situation as "with bow and arrow", "mechanically", etc., with respect to which the comments are then introduced. In this function then, predicate modifiers resemble "domain adverbials" in the sense of Bellert (1977): they define a 'domain of interpretation', in which the rest of the sentence is said to be valid, (to a certain degree of probability, etc.), without claims to 'the rest of the world', i.e., other situations that are not characterized as involving "bow and arrow" (etc.), in which it might very well be false; the latter conclusion is a general, but not a necessary connotation. In (80), for example, the statement that Piet will ruin his chances is valid in a domain of interpretation characterized by "in that way" - with the suggestion that things might very well turn out differently in another (but related) domain of interpretation (cf. also Ernst (1984: 41)).

The adverbials that are usually called "domain adverbials" include cases like "theoretically", "morally", and the like. In our terms, these are readily usable as independent characterizations of certain situations, thus we expect them to occur to the left of comment modifiers without 'special' interpretive effects:

(82) Ze kunnen hem juridisch waarschijnlijk niets maken
 They can him juridically probably nothing make
 "Juridically, they probably cannot touch him"

(83) Het is theoretisch helaas van weinig belang
 It is theoretically unfortunately of little importance
 "Theoretically, it is unfortunately not very important"

Ernst (1984) demonstrates that the members of this class may also be used as 'pure' predicate modifiers, without the 'domain effect'. From the point of view developed here, this would mean that the information they present, although easily used to provide an independent characterization of some

situation, may sometimes also be integrated with the verb into the comment, and thus that they could also occur to the right of a comment modifier. The following examples illustrate this possibility:

- (84) We hadden de baan van de raket gelukkig al theoretisch kunnen bepalen

We had the orbit of the missile fortunately already theoretically can determine

"Fortunately, we had already been able to determine the missile's orbit theoretically"

- (85) Ze willen dit probleem waarschijnlijk juridisch oplossen

They want this problem fortunately juridically solve

"Fortunately, they want to solve this problem juridically"

It seems then, that there is not really a 'sharp', categorial difference between two types of adverbials, one to be called "predicate adverbials", the other "domain adverbials". Rather, these two labels can be taken to represent two different, but not necessarily opposed types of usage: if an adverbial is used only as a 'predicate modifier', it is part of the comment, but the same word (sequence) may also be used like a 'domain adverbial'. Whether the latter usage is a more or less obvious possibility for a given word (sequence) is a matter of the lexical content of the word(s) involved, and of our imaginative faculty: it is rather easy to take "moral" as an independent characterization of a relatively ordinary situation, while this is not so easy in the case of "with bow and arrow". But there are no principled limitations in this area, and speakers have means available to them in the language to 'force' a specific kind of interpretation, where they consider it relevant.

In any case, these considerations make it perfectly clear that it is not possible to assume a syntactically coded difference between two alleged adverbial categories, those of predicate modifiers and those of sentence modifiers. The generalization that constituted the basis of this idea ("sentence adverbials precede predicate adverbials") has now not only been shown to have an explanation in functional terms (so that it is not an explanation itself), but in fact to be only partially valid. Precisely in as far as the generalization holds, it is explicable in terms of the function of the elements involved with respect to the information structure of sentences, as indicated in this section, and in as far as the

generalization does not hold, the apparent 'counter-examples' do in fact support the analysis, because it provides an adequate description of the nature of these 'exceptions'.

This has the important consequence that the 'syntax' (actually word order phenomena) cannot be considered to provide a signal for the alleged difference between adverbial modification as internal or as external with respect to the predicate (cf. chapter 3). In other words, this difference - if it is consistently identifiable - is not a difference between syntactic signs. In contrast, notions relating to the 'information structure' of sentences have appeared to be highly relevant for a fuller understanding of the word order phenomena involved.

We now reach a point where it becomes possible to consider a question we have so far kept out of the discussion: what is the nature of what we have been calling "comment modification"? This chapter contains proposals about a number of related notions, assigning some of them the status of a sign ("relevant alternative" in the case of accent, for example), and others the status of a more or less systematic interpretive effect ("relevance is limited to the presently evoked state of affairs" in the case of indefinites, for example). Now what about the generalizations on comment modification? Should the notion "comment modifier" be regarded as a semantic feature of some category, and if so, what is the form class associated with it? Especially: what is the nature of the relation between the position of a comment modifier and the interpretation of the comment of a sentence? Is this a part of the meaning of the members of a certain class of adverbials, or should it be considered to derive from other factors? If the latter, what is the nature of those factors? It is to these questions that we turn in the next chapter.

Chapter 5

Adverbials and the Function of Word Order

5.1 Conceptual and empirical problems with comment modification

In 4.1.1, it was stated that speaker-oriented adverbials are, in some sense, felt to apply specifically to the comment of the sentence, rather than to the whole of the sentence in an undifferentiated way, which was the reason for calling them "comment modifiers". At the same time, the generalization was formulated that the comment is normally to the right of such a comment modifier. The other sections of chapter 4 then concentrated especially on word order phenomena, showing that several of them can be described in terms of the meanings of the elements involved and the generalization that the comment is to the right of a comment modifier. We also noted some exceptions to this generalization, however (esp. in 4.1.3), while the analysis also was restricted to ordering variation in the 'middle part' of clauses (cf. 4.0). Besides this descriptive 'incompleteness', there is another issue, at a more conceptual level, that should be raised: we have not (yet) explicated precisely what is the content of the intuitive notion of "applying specifically to the comment", and it has not been related conceptually to the generalization on the relative order of modifier and comment. In other words, we have so far not raised the question "Why?", with respect to the generalizations on comment modification. In terms of the theoretical discussion in chapters 1 and 2, the question is: what is the actual linguistic status of the observed regularities? Is it a matter of meaning that so-called sentence adverbials specifically modify the comment of a sentence and that the comment must be to the right of such an adverbial, or is it something else?

Alongside the 'exceptions' there are conceptual motivations for taking these generalizations as formulating indirect effects rather than semantic features of some class of adverbials. Such an assumption about the meaning of the members of a certain class of adverbials would result in an highly unattractive, for 'too' complex, picture of relations between forms and meanings. There would be a group of adverbials including "probably", which

would indicate "modality", "applies to the comment", and "comment is to the right". Another group, including "fortunately", would indicate "evaluation", "applies to the comment", and "comment is to the right". There would perhaps also be a third group, including "hopefully", indicating both "modality" and "evaluation", as well as "applies to the comment" and "comment is to the right". This picture would entail for several forms that they would systematically fulfil two or three different functions, without these having any internal connection. It suggests, for example, that there may also be modal adverbials that do not exhibit the behaviour of comment modifiers, i.e., it entails a greater degree of complexity than what - both on general grounds and in view of the phenomena - seems to be desirable.

A more acceptable picture would be that no more has to be stipulated than that, for example, misschien ("perhaps") is a modal modifier and helaas ("unfortunately") an evaluative one, which seems to be the minimum of what must be stipulated about the meanings of these elements anyhow. What must be shown to make this credible is that the generalizations concerning comment modification are in fact contained in such characterizations, in conjunction with other characterizations of elementary relations of forms and functions. This is what we will try to do in this chapter.

In order to undertake this enterprise, it will be useful to pay attention specifically to 'exceptions' to the generalizations in 4.1. We will provide an overview of the most important cases in the remainder of this section.

If it were one of the immediate, irreducible functions of sentence adverbials to restrict the interpretation of the comment to a part of the sentence to the right of the adverbial, it would follow that this restriction always occurred in precisely the same way, i.e. it would have to be completely impossible for any comment to occur to the left of an adverbial modifying it. Specifically, it would have to be impossible for such an adverbial to be 'in final position' itself (assuming that every sentence has a comment). But in fact, such cases are completely normal:

- (1) Hij heeft niet genoeg opgelet waarschijnlijk
 He has not enough attended probably
 "He did not pay enough attention probably"

The rightmost position of an adverbial thus appears to exempt it from the otherwise valid generalization, which means at least that this does not represent an inherent, and therefore inescapable property of the adverbial. Something similar applies if a sentence adverbial is the leftmost element of a clause:

- (2) Waarschijnlijk heeft hij niet genoeg opgelet
 Probably has he not enough attended
 "Probably, he did not pay enough attention"

We see here that it is not at all impossible for an unaccented personal pronoun to occur to the right of a comment modifier, if this modifier is the very first element of the message communicated. Thus, both a 'final' and a 'first' position of a sentence adverbial appear to create an 'exceptional' situation, in terms of the generalizations of 4.1. More precisely, these positions can be identified as positions outside the middle part of the clauses involved, delimited (in (1) and (2)) by the main verb on the right hand side, and the finite verb (in 'second' position) on the left hand side. In so-called subordinate clauses, the finite verb is not in first or second position, but also at the right hand side, possibly together with non-finite verbs (this position of the finite verb may in fact be regarded as a sign for a specific (semantic) type of clause, cf. Daalder (1983)); in that case, the middle part is delimited at the left hand side by the element in the first position, i.e. either a (subordinating) conjunction or a relative or interrogative element (cf. ANS (1984: 917-924)). It is clear then that with these positions also taken into account, the picture of the relations between the position of an adverbial and the interpretation of the sentences looks more complicated than when only the middle part is examined.

A particularly striking confirmation, both of the validity of the generalization on comment modification within the middle part and its being restricted to this part, is offered by adverbials occurring to the left of the subject. We have seen in 4.3 that under certain specific conditions a comment modifier could precede the subject of a clause, i.e. if the subject was a contrastive comment (as constituting the comment on its own), or integrated into the comment (which is generally restricted to intransitive clauses). But there are no such specific conditions on a comment modifier

appearing to the left of the subject when the adverbial is itself the first element of the clause; thus, the order comment modifier - proper noun as subject in the subordinate clause (3) is 'odd' (with the last accent not on the subject), but the main clause in (4) clearly is not.¹

- (3) ?? ... dat misschien Piet Marie gezien heeft
 ... that perhaps Piet Marie seen has

- (4) Misschien heeft Piet Marie gezien
 Perhaps has Piet Marie seen
 "Perhaps Piet saw Marie"

So it cannot be the ordering of comment modifier and subject in itself that causes the 'oddness' of (3); it must be this ordering in combination with its occurring within the middle part of the clause, and therefore it cannot be a part of the meaning (an immediate function) of a comment modifier that its position indicates the position of the comment.

It seems then that the hypothesis that the nature of comment modification is essentially semantic would in fact assign too general a status to the phenomenon. On the other hand, however, such a proposal would also run the risk of being too restricted, if it were to consider the generalization on word order as part of the meaning of sentence adverbials. For other adverbials in different positions in a clause may give rise to interpretive effects that are very similar to those related to sentence adverbials in different positions. For example, it is well known that an unaccented pronoun to the right of a non-sentence adverbial is just as 'bad' as it is to the right of a sentence adverbial (see, e.g., Booij (1974)); consider the following examples:

- (5)a ?? Ze had mondeling hem geëxamineerd
 She had orally him examined
- b Ze had mondeling hem geëxamineerd
 She had orally him examined
 "She had orally examined him"

- (6)a Ze had hem mondeling geëxamineerd
 She had him orally examined
 "She had examined him orally"
- b Ze had hem mondeling geëxamineerd
 She had him orally examined
 "She had orally examined him"
- (7)a ??[Piet uitte de beschuldiging,] dat Jan opzettelijk hem van de baan had geduwd
 [Piet uttered the accusation] that Jan deliberately him off the track had pushed
- b ... dat Jan opzettelijk hem van de baan had geduwd
 that Jan deliberately him off the track had pushed
 "... that Jan had deliberately pushed him off the track"
- (8)a ... dat Jan hem opzettelijk van de baan had geduwd
 that Jan him deliberately off the track had pushed
 "... that Jan had pushed him off the track deliberately"
- b ... dat Jan hem opzettelijk van de baan had geduwd
 that Jan him deliberately off the track had pushed
 "... that Jan had deliberately pushed him off the track"

Thus, the combinations of accentuation and word order that are 'normal', 'odd' or 'contrastive' show a pattern that is completely similar to the one that was found in sentences containing comment modifiers and personal pronouns (cf. 4.1.3.3). It seems clear that these phenomena must be described in at least partly the same terms as those involving sentence adverbials.

There is another, perhaps even more striking illustration of the fact that simply stipulating the generalizations on comment modification as a part of the meaning of sentence adverbials would miss some important generalization: this is the phenomenon that the interpretation of indefinite NPs too may be influenced by the position of a non-sentence adverbial in the same way as with a comment modifier. Consider (9):

- (9)a De voorzitter bracht schriftelijk een onheilstijding over
 The chairman took in-writing a news-of-evil PART
 "The chairman has reported bad news in writing"
- b De voorzitter bracht een onheilstijding schriftelijk over
 The chairman took a news-of-evil in-writing PART
 "The chairman reported bad news in writing"

Sentence (9)a conveys that the chairman reported some bad news in writing; but (9)b conveys that the chairman generally reported messages in writing if they contained bad news, i.e. een onheilstijding is to be interpreted generically. Note that, apart from the word order, the accentuation of (9)a and b is different too; changing the accentuation of (9)b causes a change in the interpretive possibilities, but it does not make the result equivalent to (9)a. Consider (10):

- (10) De voorzitter bracht een onheilstijding schriftelijk over
 The chairman took a news-of-evil in-writing PART
 "The chairman reported bad news in writing"

In this case, it is possible (and in fact preferred, I think) to interpret the indefinite NP non-generically, i.e. as conveying the idea of some specific bad news. The sentence is, however, definitely contrastive, and the idea of "in writing" does not belong to the comment; the sentence might be paraphrased as "It was bad news what the chairman reported in writing". This indicates that the role of word order cannot be completely eliminated, although it is true that certain combinations of word order and accentuation are clearly preferred over others.

Thus, the effect that a certain combination of accentuation and word order may have on the interpretation of an indefinite NP is not limited to the sentences with a sentence adverbial in a particular position. We have to conclude, then, that an analysis presenting the phenomena in sentences like (5) - (10) as totally unrelated to those involving sentence adverbials would be inadequate. On the other hand, different types of adverbials should not be treated completely similarly either, for then we would no longer be able to describe the differences that exist, also with respect to topic-comment articulation: it remains true, of course, that the use of a

predicate adverbial outside the comment is a more special way of using it, that a predicate adverbial may contain the last accent of the sentence without 'contrast effects' and a sentence adverbial may not, etc. With respect to the idea that the generalizations on comment modification could be considered to express meanings, this implies that it is not useful to simply drop the original limitation of this alleged meaning to sentence adverbials, and attribute it indiscriminately to all adverbials: that would be too strong a generalization. The fact that there are similarities in the behaviour of sentence adverbials and non-sentence adverbials, but only to a certain extent, thus reinforces the idea that this behaviour is not to be considered a direct manifestation of linguistic meaning at all.

For the moment, we will thus continue to assume that comment modification itself actually is restricted to modal and evaluative adverbials. We will now try to provide an answer to the following questions:

A) What is it in modal and evaluative adverbials that makes it possible for them to be used as comment modifiers in the ways described in chapter 4? And what is it in word order that makes the position of a comment modifier appear to function the way it does? These will be the topics of 5.2. The notion of "independence", which we encountered several times in chapter 4, will appear to be especially relevant.

B) What must the description look like if it is to generalize over the behaviour of different types of adverbials, without discarding relevant differences between different adverbials? This will be taken up in 5.3.

C) What is the explanation of the difference between the behaviour of adverbials in the middle part of sentences and their behaviour in other positions? This will involve a consideration of the role of the position of verbs beyond the first and second positions of a clause, since this delimits the middle part at the right hand side (5.4.1.), and of the effect of starting a message with a comment modifier, i.e. having a comment modifier in the first position of a main clause (5.4.2).

5.2 Deriving the generalizations on comment modification

Let us start out by investigating the question what makes modal and evaluative adverbials apply specifically to the comment of a sentence. A first attempt to answer this question might invoke the notions of "truth" and "presupposition":² the use of an adverbial like misschien ("perhaps") implies that the speaker is not sure about the truth of what he is saying, but this uncertainty does not, of course, apply to what he is presupposing in the same utterance: it only concerns the question whether the idea that he is now introducing as new actually applies, hence the feeling that the adverbial applies specifically to the comment. The main problem with such a proposal (although it may provide an accurate description of this specific case) is that it is not general enough: it remains completely unclear why evaluative adverbials show the same behaviour, since these do not qualify the truth of the sentence in which they occur, but in some sense even 'presuppose' the truth of the entire sentence (an evaluation of a state of affairs as "fortunate", for example, presupposes that the state of affairs is indeed the case, which is the reason that evaluative adverbials are sometimes called "factive"; cf. Booij (1974), Bellert (1977)). It seems then that the notions of "truth" and "presupposition" are not relevant for an analysis of the phenomena under consideration.

A common aspect of modal and evaluative adverbials is that they provide an assessment of a state of affairs within the sentence evoking a picture of the state of affairs. They may be called "speaker-oriented" (Jackendoff (1972)), but the notion of "speaker" should not be taken in the strictly 'personal' sense, of the actual person uttering the sentence, but rather in a more abstract sense of "person who is to be held responsible for the message conveyed by the sentence". The actual speaker of sentences like (11) and (12) does not offer an explicit opinion about the probability of the state of affairs "Jan is at home" (but he is the one who is responsible for attributing these assessments to Piet):

- (11) Volgens Piet zit Jan waarschijnlijk al thuis
 According-to Piet sit Jan probably already home
 "According to Piet, Jan is probably already at home"

- (12) Piet dacht dat Jan misschien thuis was
 Piet thought that Jan perhaps home was
 "Piet thought that Jan might be at home"

The contents of sentences are not (just) objects, they are always interpreted as products, as having been produced, hence as implying a 'producer'. It is this abstract 'producer' of the evoking of a state of affairs that so-called speaker-oriented adverbials relate to; it is very usual, of course, that the concrete interpretation of this producer is the actual speaker of the sentence on a specific occasion. But even if this is not the case, the use of a speaker-oriented adverbial still specifies a way in which the evoked state of affairs is assessed by the implied 'producer'. Thus, this assessment is always interpreted as originating from outside the evoked state of affairs, whether the actual origin is the actual speaker or someone else. These adverbials do not provide information about aspects of the evoked state of affairs itself; rather, they explicate the status of the evoked state of affairs within some bigger framework, usually the common body of information.

Now consider the effects of accentuation, specifically of the last accent, in a sentence containing such an adverbial. Initially, there are two situations to be considered: either the adverbial contains the last accent, or it does not. If it does, the change that the speaker wants to bring about in the common body of information (cf. 4.1.2) concerns the assessment of the state of affairs evoked by the sentence, not this state of affairs itself. Consider (13), speaker B, and (14):

- (13) Speaker A:
 De uitdager is gelukkig op het remise-aanbod ingegaan
 The challenger has fortunately at the draw-offer entertained
 "The challenger fortunately accepted the offer of a draw"
Speaker B:
 Hij is er helaas op ingegaan, zul je bedoelen
 He has there unfortunately PART entertained, will you mean
 "He unfortunately accepted it, you mean"
- (14) De burgemeester zal misschien aanwezig zijn
 The mayor will perhaps present be
 "The mayor might be present"

In both examples, the only news introduced into the discourse concerns the assessment of the relevant states of affairs; in (13), a context is provided, and an appropriate context for (14) could be a situation in which the presence of several VIPs on some occasion is assumed to be certain and the sentence then contrasts this with uncertainty about the presence of one VIP in particular. Consequently, the entire evoked state of affairs is presented as given. Therefore, cases like these do not contribute to the development of a conversation, or a story; the state of affairs involved is only evoked in order to comment on the issue of its assessment. Such sentences are always contrastive, and are used to 'correct' the (assumed) previous assessment of a state of affairs.

The second possibility is that the last accent is not contained in the adverbial. In that case, the change that the speaker wants to bring about in the common body of information concerns (some aspect of) the evoked state of affairs. Given that the idea evoked by a speaker-oriented adverbial (an assessment of a state of affairs from outside) is not a part of the evoked state of affairs, it is not included in the comment: if the 'point' of a sentence is in the evoked state of affairs, it cannot at the same time be in the assessment of that state of affairs. Such sentences may contribute to the development of a conversation (a story); they need not be contrastive (although they may be, of course, but for different reasons). All examples we have been considering so far (before (13) above) were of this type.

By providing an explicit assessment of an evoked state of affairs, the speaker indicates that the status of the evoked state of affairs with respect to the common body of information might be in some way problematic: the status is presented as particularly important, and/or not immediately evident. Now, from the point of view of the common body of information, the comment represents the most significant part of a sentence, since it evokes the idea that is to effect the change in the common body of information for the purpose of which the sentence is uttered (cf. 4.1.2). Hence, if this change does not concern the assessment in itself (which is the 'normal' situation, in accordance with the description of (13) and (14) above), it is understandable that the assessment is felt to concern the comment in particular. This also provides us with a possibility of giving a more precise formulation of "comment modification" than we have done so far; it

is not, of course, the ideas evoked by the word(s) in the comment that are 'modified' by a sentence adverbial, but the modification directly concerns the aspect of their constituting the comment. The speaker proposes a certain change in the common body of information, and with a comment modifier in the utterance (if it is not itself the comment), he says that this change should be carried out in a particular way: something must be added to the common body of information as probable, as fortunate, etc. Thus, comment modifiers have a secondary status in the information structure of a sentence: the main point is something else than the content of the modification.

The above considerations also confirm our earlier conclusion that comment modification should not be considered an inherent property of some class of adverbials; sentence adverbials only function in this way when they do not bear the last accent of a sentence, which is, however, the 'normal' situation, for reasons that were presented above. If the last accent is not on the adverbial, there are again two possibilities to be considered: either the last accent is to the left of the adverbial, or it is to the right. Schematically, we have either (15)a or (15)b (underlining indicates the position of the last accent):

(15)a ...X... Adverbial ...Y...

 b ...X... Adverbial ...Y...

In (15)a, the comment consists of X, and possibly other material; this cannot include the Adverbial, however, for the reasons indicated before. Consequently, the comment cannot include Y either, for this is to the right of an element that is known not to belong to the comment: Y is produced at a moment when the comment has already been completed. For (15)b, a similar story can be told: the comment consists of Y and possibly other material, but not the Adverbial, and hence not X either. In (15)a, the idea evoked by X is introduced independently of the idea evoked by Y, in (15)b it is presented as given independently of the idea evoked by Y. Generalizing, we may say that the use of a comment modifier in a sentence has the effect that an idea evoked by material to the left is presented as perceivable independently of ideas evoked by material to the right. This gives a general formulation of the effect of the word order of (15) ("...X...

comment modifier ...Y..."), irrespective of the position of the last accent relative to the comment modifier. Consider an example we used earlier (3.2.2, 4.1.3.1):

(16)a Nu is misschien ook nog een andere faktor van invloed
 Now is perhaps also yet another factor of influence
 "Now there may be another factor of influence, too"

b Nu is ook nog een andere faktor misschien van invloed
 Now is also yet another factor perhaps of influence
 "Now another factor may be of influence, too"

As we observed in 3.2.2, (16)a may introduce the idea of "another factor being of influence" into the discourse (as a possibility), while (16)b says that something called "another factor" might be what is of influence (presupposing that something is of influence). This is in accordance with our present characterization of the effect of word order on a sentence containing a comment modifier. Furthermore, the indefinite NP in (16)b seems to be interpreted as specific; the speaker suggests he would be able to tell more about what he has in mind when evoking the idea of "another factor". Thus, the sequence in (17)a is coherent, but the one in (17)b hardly is, because the word order in the latter case suggests that the speaker has a specific factor in mind, but he subsequently denies this (one would rather expect (16)b at the beginning of a new paragraph, or something like it, which explains what the speaker has in mind):

(17)a Nu is misschien ook nog een andere faktor van invloed. Maar ik heb geen idee wat het zou kunnen zijn.
 "Now there may be another factor of influence, too. But I have no idea what it might be."

b #Nu is ook nog een andere faktor misschien van invloed. Maar ik heb geen idee wat het zou kunnen zijn.
 "Now another factor may be of influence, too. But I have no idea what it might be."

This can also be seen in terms of the general effect of the position of a comment modifier as formulated above. By introducing the idea of "another factor" as perceivable independently of its influence, the speaker is implying that the idea is perceivable independently of the presently evoked

state of affairs, which consists of a factor being related to influence. Hence the NP is interpreted specifically according to our analysis of meaning and use of indefinite NPs in 4.2: the idea evoked by "of influence" is declared to be presently irrelevant for the perception of the idea of "another factor", so the latter is either generic (no properties but being another factor are relevant) or specific (it may also be characterized in other terms than "another factor" and "of influence"). The first option is not available, because of the opposition implied by "another" and because of the fact that the sentence as a whole makes it clear that the idea of "influence" as (possibly) related to "another factor" is presented as given (and perhaps because of other factors as well...), so the NP is interpreted specifically.

Note, incidentally, that the refinement of the notion of "comment modification" that we have made in this section ("the comment relates to the common body of information in a particular way", rather than "the content of the comment is modified"), is in fact also needed to provide an accurate description of such cases with the comment preceding the comment modifier: it is not the issue of "another factor" itself that is qualified by "perhaps" in (16)b, but the issue of its relation to the common body of information (which includes the idea of "influence").

The argument above implies a general difference between sentences with given information following the comment, and others with the comment positioned finally in the sentence. In the first case, the ideas introduced into the discourse are implied as being perceivable independently of the ideas that are presented as already available in the common body of information. The role of the latter ideas thus does not consist in providing a framework with respect to which the ideas that are presented as new may be perceived. They are therefore generally felt to provide merely a repetition of information that essentially was already clear before.³ Such sentences are felt to be 'special' in some respect, often contrastive, because the difference between 'given' and 'new' information is very big when 'given' information is just repeated information, and also because the presentation of 'new' information as independent of the present state of affairs easily gives rise to tension. Consider the following examples:

- (13) Speaker A:
 De uitdager is gelukkig op het remise-aanbod ingegaan
 The challenger has fortunately at the draw-offer entertained
 "The challenger fortunately accepted the offer of a draw"
- Speaker B:
 Hij is er helaas op ingegaan, zul je bedoelen
 He has there unfortunately PART entertained, will you mean
 "He unfortunately accepted it, you mean"
- (18) Zijn eerzucht heeft hem genekt
 His ambition has him ruined
 "His ambition has ruined him"

In (13), the comment is constituted only by the adverbial helaas ("unfortunately"), as described before. The way this comment relates to the common body of information is presented as construable independently of the ideas evoked by the material following it. Hence the feeling that these ideas must essentially 'already be there', although not necessarily in precisely the same words, of course, as (13) indicates. Similarly, the material following the comment zijn eerezucht ("his ambition") in (18) is felt to repeat information that is already established, rather than to put some elements of the context into words for the first time (again, it is not necessary that the given information to which (18) is applied has been put into the same words before).

It may be concluded, then, that a non-final comment always results in a special interpretation of the sentence. Consider schema (15) again:

- (15)a ...X... Adverbial ...Y...
- b ...X... Adverbial ...Y...

In (15)a, the new information X is presented as perceivable independently of the given information Y, which is somehow special, while in (15)b, the given information X is presented as perceivable independently of the new information Y, which is, of course, completely normal. These considerations thus provide an explanation of the second generalization on comment modification: that the comment is normally to the right of a comment modifier. In that case, the comment can be final in the sentence, and there

is no given information following it, so the special effect that new information is presented as independent of (part of) the evoked state of affairs need not arise. In fact, I think these same considerations also provide an explanation of the well known idea that 'new' information is normally expected to follow 'old' information (cf., for example, Blom & Daalder (1977: 87/8), Kirsner (1979: 98-101), and the references cited by the latter). In cases represented by the schema in (15)a, it is the fact that the adverbial cannot be taken as part of the comment (for reasons presented in this section) that creates the situation that some material following the last accented element must be taken as evoking the idea of given information. But in other cases, this may be clear from the context, or from the nature of the evoked state of affairs itself; it is hard, for example, to think of a situation in which the entire sentence (18) might be interpreted as presenting new information, so it is normally interpreted as consisting of a comment followed by given information, hence contrastively. Another relevant example is (10) from the previous section:

- (10) De voorzitter bracht een onheilstijding schriftelijk over
 The chairman took a news-of-evil in-writing PART
 "The chairman reported bad news in writing"

As noted, (10) is contrastive, and we can now at least partly explain why. If the last accented element precedes a predicate adverbial, the adverbial is apparently not included in the comment (but we have not yet discussed for what reason), and the comment is then not final in the sentence. Consequently, the news of the sentence is presented as perceivable independently of the evoked state of affairs; hence the sentence is contrastive, in the same way, in fact, as (13) and (18) are.

There are some other 'exceptions' to the second generalization on comment modification that can be explained along similar lines. Recall that we noted that a personal pronoun bearing the last accent could occur to the left of a comment modifier without the sentence being 'worse' than with the accented pronoun to the right (cf. 4.1.3.3):

- (19) Marie zal hem waarschijnlijk afwijzen
 Marie will him probably reject
 "Marie will reject him, probably"

We have analyzed the meanings of personal pronouns as implying that their referents are perceivable independently of the evoked state of affairs, because the pronouns correlate participants in the evoked state of affairs to participants in another (just some other state of affairs, or the speech situation in particular). This means that using a personal pronoun with the last accent of the sentence will always be somehow 'special' or 'contrastive', regardless of the presence or absence of a comment modifier. The position of a comment modifier simply makes no difference with respect to the question of whether the idea that is being introduced is also presented as independently perceivable: whether the pronoun involved is to the left or to the right of the adverbial, if it bears the last accent, there is always some kind of 'special' effect of an idea being introduced and at the same time being presented as independently perceivable.

Another phenomenon that can be described in similar terms involves contrastive accentuation of subjects. As we have seen in 4.3, if a referential subject NP of a transitive sentence contains the last accent, the comment consists of only the subject and the sentence is contrastive. Since this is independent from the presence or absence of a comment modifier, the position of such a modifier makes no difference in this respect. Thus, there is no great difference between (20)a and (20)b:

- (20)a Dan heeft wellicht de chauffeur de koffers meegenomen
 Then has perhaps the driver the suit-cases taken-along
 "Then perhaps the driver took along the suit-cases"
- b Dan heeft de chauffeur wellicht de koffers meegenomen
 Then has the driver perhaps the suit-cases taken-along
 "Then the driver perhaps took along the suit-cases"

The position of the adverbial in (20)a does not make it necessary to consider the idea of "the driver" to be perceivable independently of the evoked state of affairs; but the fact that this idea is interpreted as constituting the comment on its own (so that it is followed by given information) nevertheless gives rise to such an interpretation ("the driver" is contrastively picked out from a set of possibilities that is being considered when the sentence is produced). So there is no big difference in practice with the comment preceding the adverbial, as in

(20)b; both cases can, I think, be used in similar situations. The difference that remains can be described in terms similar to those we have used for describing the effect of word order earlier in this section: the idea of "the driver" in (20)b is introduced independently of the idea evoked by wellicht ("perhaps"), which is produced later, so that the restriction embodied by the latter sounds somewhat like a correction, added 'on the way', rather than 'planned': (20)b may have the effect that the speaker makes the impression of only becoming aware of the impact of his message when he is already in the process of saying it.

The examples in (20) are in fact specific cases of a more general phenomenon: whenever there is a reason, independent of the presence of a comment modifier, to interpret a sentence in such a way that given information follows the comment, the comment is presented contrastively, and the position of a comment modifier does not make much difference for the possibilities of using the sentence; thus, the examples in (21) are also both interpretable and contrastive:

- (21)a Dus was waarschijnlijk de belabberde economie de oorzaak
 So was probably the miserable economy the source
 "So probably the miserable economy was the source"
- b Dus was de belabberde economie waarschijnlijk de oorzaak
 So was the miserable economy probably the source
 "So the miserable economy probably was the source"

As in (20)b, the comment in (21)b is introduced independently of the idea of, in this case, "probably", so that this sentence may also make the impression of the speaker correcting his statement 'on the way'.

The results of the considerations so far may be briefly summarized as follows. Speaker-oriented adverbials evoke the idea of the assessment of the evoked state of affairs from outside. Therefore, if the comment concerns the evoked state of affairs (i.e. if the last accent is not on the adverbial), the assessment is not part of the comment itself, but rather concerns the status of the comment with respect to the common body of information (hence the idea that they "apply specifically to the comment"). In that case, if the last accent is to the left of the comment modifier,

any material that is to the right of the modifier does not belong to the comment, and consequently the comment is introduced as perceivable independently of the evoked state of affairs. This gives rise to 'contrastive' interpretations. The reverse order, with the last accent to the right of the comment modifier, presents the given information as independent of the evoked state of affairs, which is completely 'normal' (hence the idea that the comment "is normally to the right of a comment modifier"). Thus, the generalizations on comment modification from chapter 4 have been shown to derive from some rather general considerations, one of which concerns a general function of word order: whether the comment precedes or follows other information (given information, or a comment modifier, for example), what is produced 'earlier' is thereby presented as, in some way, perceivable independently of what is produced 'later'.

5.3 Other adverbials and the function of word order

5.3.1 Extending the analysis

In this section we will be concerned with the question how to generalize the analysis to some other types of adverbials.

First of all, recall that we have given a more precise formulation of the content of "comment modification" in 5.2, in the following way: the speaker proposes a certain change in the common body of information (to be effected by the comment), and what a comment modifier does is to indicate that this change should be carried out in a particular way; a comment modifier qualifies the status of the comment with respect to the common body of information. This formulation immediately makes it understandable that at least one other class of adverbials behaves in the same way with respect to the information structure of sentences as speaker-oriented adverbials. I am referring to elements like bovendien ("besides", "moreover"), desondanks ("nevertheless"), weliswaar, ("true enough"), and echter ("however"). These are not speaker-oriented in the sense that the speaker provides personal assessments of the evoked state of affairs, but they share the feature that they do not provide information about some aspect of the state of affairs as such, but rather about the way the news that is provided should be fitted into the common body of information. That they do indeed behave (in

the relevant respects) like the cases of comment modifiers we have so far been discussing may be seen from the following examples (which are identical to cases we have already discussed, except for the adverbials in them).

- (22)a ^{??} Marie zal echter hem afwijzen
 Marie will however him reject
- b Marie zal hem echter afwijzen
 Marie will him however reject
 "However, Marie will reject him"
- c Marie zal echter hem afwijzen
 Marie will however him reject
 "Marie will, however, reject him"
- (23)a Je zult desondanks altijd zieken moeten verzorgen
 You will nevertheless always sick-people have-to tend
 "You will nevertheless always have to tend sick people"
- b Je zult zieken desondanks altijd moeten verzorgen
 You will sick-people nevertheless always have-to tend
 "The sick will nevertheless always have to be tended"
- (24)a ^x Hij zal echter een auto weigeren
 He will however a car reject
 "He will, however, reject a car"
- b Hij zal een auto echter weigeren
 He will a car however reject
 "He will, however, reject a car"

The examples in (22) show that pronouns behave exactly the same with respect to these adverbials as they do with respect to what we have so far been calling "comment modifiers": an unaccented personal pronoun to the right of the adverbial is 'odd' (because it is suggested that it might belong to the comment together with the main verb), it is 'normal' if to the left, and an accented pronoun to the right is OK, but 'contrastive' (it

constitutes the comment on its own); (23) and (24) illustrate the same for indefinite NPs: when to the left of the adverbial, these NPs are not interpreted as non-specific, but rather (in these cases), as generic. For example, (23)b formulates the same general consequence of sickness as (59)b in 4.2.3. From now on, then, we will use the term "comment modifier" so as to include these 'relational' adverbials; thus it no longer refers in a strict sense to the same class as the term "speaker-oriented adverbials".

However, it was observed in 5.1 that adverbials that are traditionally called predicate modifiers may also influence the interpretation of a sentence in a way very similar to the way speaker-oriented adverbials do; and these are not to be characterized as qualifying the way the comment fits into the common body of information, but precisely the opposite: contrary to modal, evaluative and 'discourse relational' adverbials, predicate modifiers generally provide information about some aspect of the evoked state of affairs itself, hence, if the comment concerns some aspect of this state of affairs, a predicate modifier may well be included in the comment, including cases where it does not itself bear the last accent of the sentence. In 4.4, we have given reasons for the phenomenon that predicate modifiers do indeed generally form a part of the comment and thus follow a comment modifier if one is present, and that they function in a special way, as a kind of 'domain adverbial', when they precede a comment modifier.

In the previous section, we explained the idea that the comment is generally to the right of a comment modifier in terms of the fact that placing it to the left has the effect that it is presented as perceivable independently of the given information, which gives rise to 'contrastiveness'. Now, the idea evoked by an adverbial that provides information about the way some process takes place implies the idea of some process or situation; if one has an idea evoked by "orally", for example, one also has the idea of some process or situation exhibiting a feature that can be characterized in terms of "orally". Now consider examples (5) and (6) from 5.1 again:

- (5)a ?? Ze had mondeling hem geëxamineerd
 She had orally him examined

- b Ze had mondeling hem geëxamineerd
 She had orally him examined
 "She had examined him orally"

- (6)a Ze had hem mondeling geëxamineerd
 She had him orally examined
 "She had examined him orally"

- b Ze had hem mondeling geëxamineerd
 She had him orally examined
 "She had orally examined him"

Because hem, being a pronoun, presents an entity as independently perceivable (cf. 4.1.3.3) and because it is unaccented in (5)a, it does not belong to the comment, which therefore only consists of the idea evoked by "examined". Consequently, "orally" does not belong to the comment either, and this idea is thus presented as perceivable independently of the process of examination, to which it is still said to be related, too. So there would have to be, 'besides' the examination, some other process or situation exhibiting the feature "orally", in order for the sentence to convey a coherent message. Since this is not readily conceivable, the sentence may give the impression of incoherence. In (5)b, the pronoun, now bearing the last accent, is isolated as the comment, hence both the idea "orally" and the idea "examining" are presented as given, so that the process evoked by the adverbial is straightforwardly identified as one of examining. Essentially the same story can be told in the case of (5)c, which may, however, sound somewhat better, because elements that partially evoke the same idea are linearly adjacent.

- (5)c Ze had hem mondeling geëxamineerd
 She had him orally examined
 "She had orally examined him"

In (6), the (unaccented) pronoun is to the left of the predicate modifier; thus, there is no problem in taking the latter as belonging to the comment. In the case of (6)b, with the last accent on the main verb, the comment consists of the verb and the adverbial together, in the most obvious reading: the idea of the process of examination because of the last accent

on the verb, the idea of "orally" because it evokes the idea of a process of which it is an aspect which is in this case obviously the same process as evoked by the verb. Thus, a predicate modifier normally does not have to bear the last accent while it may yet be readily interpreted as belonging to the comment. Apparently, this is the reason that if it does bear the last accent, as in (6)a, the sentence seems somewhat contrastive (although fully acceptable): one need not provide the last accent on the predicate modifier to include it in the comment together with the verb following it, so if the last accent actually is on a predicate modifier followed by a verb, the inference is that the idea evoked by the verb is not to be included in the comment.

Turning now to cases with indefinite objects in different positions with respect to a predicate modifier, consider (9) and (10) again:

- (9)a De voorzitter bracht schriftelijk een onheilstijding over
 The chairman took in-writing a news-of-evil PART
 "The chairman has reported bad news in writing"
- b De voorzitter bracht een onheilstijding schriftelijk over
 The chairman took a news-of-evil in-writing PART
 "The chairman reported bad news in writing"
- (10) De voorzitter bracht een onheilstijding schriftelijk over
 The chairman took a news-of-evil in-writing PART
 "The chairman has reported bad news in writing"

In (9)a, the object NP is to the right of an element that itself indicates an aspect of a process named by the verb. Now, if the NP were to be interpreted as evoking an independently perceivable idea with respect to that verb, the adverbial would also have to be interpreted as evoking an independently perceivable idea; hence the NP is preferably interpreted as evoking an idea whose perception is dependent on the perception of the process named by the verb. Then the comment may be construed as consisting of the ideas of "in writing", "bad news" and "reporting"; it is final in the sentence, so neither the idea "in writing", nor the idea "bad news" need be taken as perceivable independently of (a part of) the presently evoked state of affairs. But in (9)b and (10), the NP is to the left of the

adverbial. Given that there is no 'constraint' against placing it to the right of the adverbial, in which case it would unambiguously be presented as not independent with respect to idea evoked by the adverbial and the verb, the obvious inference is that the order is to indicate a relative independence of the idea evoked by the NP with respect to the ideas evoked by the adverbial and the verb. In short, given that there is an 'option' of producing the order "Aspect of process X" - "Instance of Y", or "Instance of Y" - "Aspect of process X", this formal difference is functionally 'exploited' in that the first is used to indicate dependence of the perceivability of the idea "Instance of Y" on the perception of the process X, and the second to indicate a certain degree of independence of the perceivability of the same idea with respect to the perception of the process X.

In (9)b, this results in the NP being interpreted generically (along lines we have discussed before), and in (10) -- with the idea of "bad news" being introduced -- in a specific interpretation (apparently because the occurrence of a process in which it participates is presented as given information). Since the indefinite NP in (10) presents something which is independently perceivable as the news of the sentence, the sentence is highly contrastive. Note that in another sentence, the order "indefinite NP" - "predicate modifier" with the last accent to the right of the NP may also result in a specific interpretation, as is illustrated by (25):

- (25)a Hij zou telefonisch een aanwijzing doorgeven
 He would by-telephone an indication pass-on
 "He would pass on an indication by telephone"
- b Hij zou een aanwijzing telefonisch doorgeven
 He would an indication by-telephone pass-on
 "He would pass on some/any indication by telephone"

Example (25)a introduces the idea of a process of "passing on an indication by telephone", without the implication that the speaker knows what indication would be given, but (25)b either has the latter implication ("There was some indication, and he would pass it on by telephone") or it says that any indication would be passed on by telephone. In the first case, we have the specific interpretation.

Often, the ordering of an indefinite object to the left of a predicate modifier is not readily interpretable, as is the case with comment modifiers. Consider (26):

- (26)a Hij heeft zeer snel een nieuwe auto gekocht
 He has very quickly a new car bought
 "He very quickly bought a new car"
- b ?Hij heeft een nieuwe auto zeer snel gekocht
 He has a new car very quickly bought

Also with the last accent in another position than indicated in (26)b, there is no other obvious interpretation of the sentence than the echo-interpretation, reading it as correcting a misunderstanding of a previous sentence. It is nevertheless possible, as we have seen before, to construct a generic message involving an event of buying, without specific indications as to the context. Compare (26)b to (27):

- (27) Hij zou een nieuwe auto bliksemsnel weer verkopen
 He would a new car quickly-as-lightning again sell
 "A new car he would immediately sell again"

This sentence does not report a historical event of the selling of some individual car (note the modal auxiliary zou), but it characterizes the referent of the subject, for example, as someone who does not like new cars. In this case, the position of the predicate modifier allows for a natural interpretation (at least with certain positions of the last accent), in contrast to the situation with (26)b.

We have now reached a point where it may become more clear what is the background of the observation from the ANS (1984: 992/3) that adverbial phrases of various 'semantic types' may be said to occupy a "pivot position" in the sentence. Comment modifiers (including the 'relational' adverbials discussed at the beginning of this section) do so because they do not themselves belong to the comment, but rather qualify its relation to the common body of information, so that the information to the left is presented as perceivable independently of the information to the right. Adverbials that evoke the idea of an aspect of the process evoked in the

sentence do so because the perception of that aspect is normally dependent on the perception of the process, so that elements to their right are interpreted as not evoking independently perceivable ideas either. So the behaviour of at least some different types of adverbials can be understood in terms of notions developed so far. The analysis further suggests the possibility of extending it to still other types, and we will now give an indication of that, without claiming completeness however.

Firstly, recall the discussion of so-called domain adverbials (example (28) is identical to (83)' in 4.4):

- (28) Het is theoretisch helaas van weinig belang
 It is theoretically unfortunately of little importance
 "Theoretically, it is unfortunately not very important"

The description given in 4.4 completely fits into the present analysis: the idea evoked by the adverbial "theoretically" is presented as perceivable independently of the idea of the presently evoked state of affairs: it isolates a part of the common body of information and limits the change effected by the comment to this part. Thus, they are on a par (in the respects that concern us here) with comment modifiers, in that they qualify the status of the comment with respect to the common body of information. But there is a slight difference, in that the earlier description suggests that this is because the idea evoked by a domain adverbial is not included in the comment (assuming the last accent to be on belang ("importance"), as indicated in (28)), while the present analysis suggests that with the word order of (28), the adverbial may well be interpreted in the same way if it bears the last accent, but that the sentence will then be contrastive, the idea of "theoretically" being both new and perceivable independently of the evoked state of affairs (with the rest of the sentence interpreted as repeating given information). This is correct in view of the interpretation of (28)':

- (28)' Het is theoretisch helaas van weinig belang
 It is theoretically unfortunately of little importance
 "It is unfortunately not very important theoretically"

On the other hand, if the word theoretisch is to the right of a comment

modifier, it need not be interpreted as a domain adverbial (as perceivable independently of the evoked state of affairs), regardless of the question whether it contains the last accent or not:

- (29)a We hadden de baan van de raket gelukkig al theoretisch kunnen bepalen
 We had the orbit of the missile fortunately already theoretically can determine
 "As to the missile's orbit, we had fortunately already been able to determine it theoretically"
- b We hadden de baan van de raket gelukkig al theoretisch kunnen bepalen
 "As to the missile's orbit, we had fortunately already been able to determine it theoretically"

Thus, the role of the order of elements cannot be eliminated entirely in an explanatory analysis, although it is undoubtedly true that 'only' certain combinations of order and accentuation give rise to non-contrastive sentences; the point is, however, that the combination of the roles of word order and of accentuation in the analysis makes it possible to understand contrastiveness, so that the descriptive domain of the analysis is not arbitrarily limited.

Finally, I want to make some tentative remarks on certain adverbials of place and time in view of the notions developed in this section. Assuming that the categories of space and time are generally available in the common body of information in virtually every discourse, a natural function of time and place adverbials is to select a specific part of that type in the common body of information, thereby explicitly limiting the change brought about by the comment to that part. Unlike predicate modifiers of the type mondeling ("orally"), they do not themselves evoke the idea of a specific type of process, although the process evoked by a verb may suggest the idea of a specific place or time.⁴ On the other hand, the specification of the time or place of a state of affairs may very well be (a part of) the 'news' conveyed by the sentence. In any case, we would not be surprised to see that the behaviour of adverbials of place and time may at least in some respects be described in terms of the notions developed so far. Consider the following examples.

- (30)a Er zal waarschijnlijk in november met de afwerking worden begonnen
 There will probably in november with the finishing-touches get started
 "Probably the finishing touches will start in November"
- b Er zal in november waarschijnlijk met de afwerking worden begonnen
 There will in november probably with the finishing-touches get started
 "In November they will probably start with the finishing touches"
- (31)a [Dat betekent,] dat we bovendien in Amsterdam boodschappen moeten doen
 [That means] that we moreover in Amsterdam shopping must do
 "[That means] that we have to go shopping in Amsterdam, too"
- b [Dat betekent,] dat we in Amsterdam bovendien boodschappen moeten doen
 [That means] that we in Amsterdam moreover shopping must do
 "[That means] that we also have to go shopping, in Amsterdam"

Firstly, note that there is no clear preference for one order rather than the other with respect to the comment modifiers (unlike the situation with predicate modifiers). Secondly, there are certain differences of interpretation. There is a clear tendency for the time and place adverbials in the respective b-sentences to be interpreted as selecting options which are given in the present discourse, i.e. as relating the rest of the evoked states of affairs in a specific way to an element of the discourse, rather than as introducing ideas into the discourse, which is in accordance with our analysis. Consider also (32):

- (32)a Marie wil volgend jaar met een vriendin op vakantie
 Marie wants next year with a friend on vacation
 "Next year Marie wants to go on vacation with a friend"
- b Marie wil met een vriendin volgend jaar op vakantie
 Marie wants with a friend next year on vacation
 "Marie wants to go on vacation next year with some friend of hers"

- c Marie wil met een vriendin volgend jaar op vakantie
 Marie wants with a friend next year on vacation
 "Marie wants to go on vacation with some friend of hers next year"

The indefinite NP in (32)a may be read non-specifically, i.e. at the speech moment nothing else is assumed with respect to the idea evoked by "a friend" (neither that other properties are known, nor that they are irrelevant). But (32)b and c imply that there is actually some friend with whom Marie wants to do something, namely to go on vacation, with (32)c being contrastive. We could incorporate this by saying that the idea of "next year" is interpreted as independent of the evoked idea of going on vacation, so that "a friend" must also be perceived independently when it is to the left of the adverbial.

The latter portions of this section contain as yet incomplete ideas as to how one might go about incorporating various types of adverbials into the analysis. Despite this incompleteness, one aspect shows up as a constant element: the idea that "being perceivable independently of the evoked state of affairs" is crucially related to the order of elements in a sentence.

5.3.2 On the function of word order

The purpose of this section is to provide a survey of the position we now take with respect to the relation between the position of adverbials in a sentence and the interpretation of that sentence, as well as some comments on the nature of certain concepts that constitute this position.

Most generally, of two pieces of information in a sentence,⁵ the one that is produced first is thereby presented as perceivable independently of a piece of information that is produced later, hence of the state of affairs as it is evoked by the sentence as a whole. Those sentences are felt to have a 'normal', non-contrastive accentuation, in which the piece of information that is introduced into the discourse and that contains the last accent is not presented as independently perceivable (i.e. is the last piece of information in the sentence), although there is no principled limitation in this area. Because of this relation, the the position of certain elements, providing indications as to whether the ideas evoked are

to be taken as independently perceivable or not, has consequences for the 'informational content' of the sentence, especially in written language, where information about accentuation may be absent.⁶

The role of comment modifiers in this respect has been discussed in 5.2 and in 5.3.1, where it was noted that certain 'relational' adverbials are similar to speaker-oriented ones in the relevant respects. Predicate modifiers, on the other hand, evoke the idea of an aspect of a process, which is not normally thought of as perceivable independently of an occurrence of some process exhibiting that aspect. Thus they tend to be part of the comment of a sentence, for the comment is not normally presented as independently perceivable either, as argued before; hence the idea that they tend to occur to the right of comment modifiers, hence also the phenomenon that material to their right also tends to evoke not independently perceivable information. But if they are in such a position (for example to the left of a comment modifier) that the evoked ideas are in fact presented as independently perceivable, the sentence need not be uninterpretable; as we have seen, there are cases where a predicate modifier may plausibly be interpreted as selecting a specific part of the common body of information, to which the comment specifically applies. Some other adverbials allow for such an interpretation rather easily, and they have been called "domain adverbials" in the literature; but when they are in fact in such a position that they do not evoke independently perceivable ideas, the same elements may function just like predicate modifiers in their 'normal' usage. We have also suggested that at least in some cases the behaviour of certain adverbials of place and time may be described in terms of their normally evoking an independently perceivable idea, namely a part of the common body of information, but it is not yet clear whether this 'dimension' in the interpretation of adverbials will be sufficient for a more comprehensive description. But it is clear, I think, that it is at least relevant in a rather general way.

Note that we have now in some sense returned to the position that distinctions between different types of adverbials like the one between "sentence modifier" and "predicate modifier" are in fact at the basis of the explanation of the 'syntactic' phenomena. But we have not assumed that these distinctions are syntactically coded, i.e. word order is, in this respect, a symptom rather than a sign; in fact, the analysis excludes the

possibility of word order functioning as a sign for these distinctions, given the fact that the observed 'regularities' have systematically appeared not to be strict, and understandably so. Thus, in terms of knowledge and acquisition of the grammatical system of Dutch, it is sufficient to know and to learn the lexical meaning of the elements constituting an adverbial, the meaning of accentuation, and how to use word order, in order to be able to use adverbials in sentences, and to use them as instruments in creating the information structure of a sentence.

The relation between word order and notions like "sentence adverbial" and "predicate adverbial" may be one of a symptom rather than a sign, but we also have to consider the status of the relation between word order as an external phenomenon and the general interpretive aspect "independently perceivable": is this perhaps a form-meaning relation, or is it also a symptom? In terms of the discussion of the function of signs in 2.2, it is not immediately obvious that it should be called a sign, although the relation between the formal and the interpretive aspect appears to be fairly constant. A problem is that the word order phenomenon we are now considering seems to be of a strictly relative nature: it especially affects the interpretation of the first element (this is presented as independently perceivable - in the case of indefinite NPs as generic or specific, for example), but the question of whether it is the first element depends on the question whether there is another element that follows; hence the question of whether a certain element should be interpreted as independently perceivable cannot be answered at the moment when this element itself occurs. The element presenting the interpretive aspect involved apparently does not itself present the related formal aspect, which seems to make it difficult to consider this relation as one between the formal and the semantic side of a sign. It is different from a non-relative word order category like "finite verb in first position", for example, since the interpretive 'impact' of the latter can be recognized at the moment the sign occurs.

An answer to this objection could be that the phenomenon should be taken precisely for what it appears to be: a sign at the level of the sentence. What exhibits a certain order of pieces of information is a sentence, so the immediate effect of this order should also be taken as located at the level of the interpretation of the sentence. The order effects a certain

organization of the informational content of the sentence: one piece of information is presented as perceivable independently of the perception of another, and in that formulation, the 'domain' of the effect does indeed primarily involve the contents of the sentence as a whole, and only indirectly affects the interpretation of specific elements with respect to the common body of information. With such a view, the assumed function of word order could be consistently incorporated in the framework of 1.1, as the (abstract) meaning of a (likewise abstract) class of formal phenomena.

However, the effect that an 'earlier' piece of information is interpreted as perceivable independently from a 'later' one could also be conceived as resulting from the minimal assumption that word order is functional, for the idea that you do not need Y to perceive X seems the most obvious kind of conclusion that can be drawn from the fact that the elements evoking X are produced before the elements evoking Y, if the order is assumed to be functional at all. Although I would certainly prefer this latter position, the considerations and the data put forward so far do not provide a sufficient basis for settling this issue. We will return to this question briefly in 7.1, after an analysis of the order of NPs which will contain the proposal that the same notion of "independence" plays an important role in this area too.

Note, finally, that the difference between adverbials that provide an assessment "from outside" the evoked state of affairs and adverbials that evoke the idea of an aspect of a process at least superficially resembles the distinction made in transformational analyses between modification which is "external" or "internal" to the predicate (cf. 3.1). But instead of trying to reduce the difference to some formal description, we have been trying to develop the contents of these notions themselves, in such a way that it might provide the basis for an understanding of the phenomena. In the process, we have also found that the difference does not relate directly to 'syntactic' regularities: what has appeared to be really relevant is not so much the question which part of the sentence is modified by an adverbial, but how the contents and the position of an adverbial contribute to the interpretation of the way a sentence affects the common body of information in a developing discourse. That is, in adopting a functional rather than a formal research programme, we have also moved from a sentence-internally oriented perspective to a discourse oriented one with

respect to the nature of descriptive and explanatory categories.

5.4 On the domain of comment modification

5.4.1 'Dislocated' adverbials and the meaning of 'Verb-third'

We will now turn to the question why the generalizations on comment modification appear to be limited to the so-called middle part of sentences (cf. 4.0 and 5.1). The present section will be concerned with adverbials in 'rightmost' position, the next one with adverbials in initial position.

As to adverbials on the right-hand side, the issue actually consists of two parts. Firstly, why is it (in a 'traditional' terminology) that sentence adverbials may occur to the right of the middle part without causing interpretive problems, or special interpretive effects, and that predicate adverbials may not, or at least far less easily (cf. also 3.2.1)? And secondly, why is it that the comment may occur to the left of a sentence adverbial (i.e. a comment modifier) without giving rise to a contrastive interpretation of the sentence if the adverbial is to the right of the middle part (cf. 5.1)? These questions are related, in that the second is in some sense a part of the first ("why is a sentence with a sentence adverbial to the right not interpreted contrastively?"), but they focus on different aspects of the same problem, and it is useful to distinguish these aspects in the discussion.

In order to answer the questions formulated above, we have to take a closer look at what is actually involved in the constitution of a set of elements as the middle part of the sentence, as far as the right-hand side is concerned. Formally, this consists in the occurrence of a verb, or a group of adjacent verbs, beyond the second position of a clause. What I want to propose now is that the occurrence of such a "manifestation of the category Verb" ⁷ after two or more sentence elements functions as a specific sign in Dutch, instructing the hearer to complete the interpretation of the process or state of which the idea evoked by the present verb (or group of verbs) is a part. For ease of reference, I will call this the "Verb-third" sign, but strictly speaking, it concerns any position beyond the second. Also for reasons of brevity, I will generally not talk of "process or

state" every time the meaning is used in some description, but simply of "process". Although the proposed meaning is invoked by any verbal form, and not only by finite verb forms, the function of "Verb-third" should still be considered against the background of the fact that the finite verb may occupy different positions in Dutch clauses, with specific effects on the interpretation of the entire clause with respect to the speech situation (cf. Daalder (1983) and references cited there). A specific feature of finite verbs occurring in first and second position is that it is not necessary to complete the interpretation of the process or state evoked in the sentence upon the occurrence of the verb: this may be delayed until the occurrence of a verb beyond the second position or the end of the utterance.

The proposed meaning for "Verb-third" is an attempt to 're-interpret' the well-known generalizations that 'non-finite verbs occupy the final position both in main and in subordinate clauses', 'verbs are final in subordinate clauses', 'Dutch is an SOV-language' (cf. Koster (1975)), as the effects of a signal: in Dutch, if one encounters a verb in a clause beyond the second position, the interpretation of the sentence must essentially be completed, for the proposed meaning implies that anything that follows it cannot be involved in the interpretation of what process is being evoked in the sentence. Consider the following example (cf. ANS (1984: 1024)):

- (33) Na een extra kort conclaaf werd tot paus uitgeroepen: de
Poolse kardinaal Karol Wojtiła
After an especially short conclave got to pope proclaimed: the
Polish cardinal Karol Wojtiła
"The one who was, after an especially short conclave,
proclaimed pope was the Polish cardinal Karol Wojtiła"

The effect of the occurrence of the participle (in this case, as the fourth sentence element) is that the hearer is instructed to complete an interpretation of the occurrence of a process of "being proclaimed pope", but since no participant has so far been mentioned, and it is highly implausible that one should conceive of an 'impersonal' process of being proclaimed pope, the result is a feeling of incompleteness, a 'gap' in the interpretation of the sentence. As long as a Verb-third signal has not occurred, no feeling of incompleteness will arise, for it has not been said that the interpretation of the process should be completed.

Cases like (33) very generally exhibit a particular type of intonation (called "colon intonation" in Blom & Daalder (1977), since in written language it is indicated by a colon, as in (33)). Compare (33)a:

- (33)a Na een extra kort conclaaf werd tot paus uitgeroepen de Poolse
 kardinaal Karol Wojtiła
 After a specially short conclave got to pope proclaimed the
 Polish cardinal Karol Wojtiła

The nature of this specific type of intonation can be understood in terms of proposals by Keijsper (1984, 1985) (cf. 4.1.2): the rise on paus ("pope") has the specific feature that it conveys that something else is yet to follow, and no further accent is realized when the Verb-third signal occurs (the dotted line indicates a fall of pitch at the end of the syllable which does not lend the syllable prominence), so that the message is: "there is still something to follow when the interpretation of the process is to be completed". Thus, the high tone may be interpreted as announcing the 'missing' participant, it is, so to speak, its replacement for the Verb-third signal. Another type of intonation (especially a fall on paus) makes the sentence virtually incomprehensible; cf. (33)b:

- (33)b ?? Na een extra kort conclaaf werd tot paus uitgeroepen....
 After a specially short conclave got to pope proclaimed....

The break in the intonation in (33), indicated by the colon, separates the following element from the preceding piece of information (the sentence up to and including the participle). With prepositional phrases following a Verb-third signal, this break in the intonation can easily be absent, as indicated in (34): ⁸

- (34) Veel mensen willen wel protesteren tegen kernwapens
 Many people want PART protest against nuclear-weapons
 "Many people do want to protest against nuclear weapons"

This case is similar to (33)a in that there is still an announcement of something to follow when the Verb-third signal occurs, but there is no need

to set the following element off from the rest of the sentence as a separate unit of information. The reason is, apparently, that what follows the infinitive in (34) is a prepositional phrase, i.e. an element that contains an explicit marking of the fact that it functions in a particular way with respect to something else. Thus the relation between a process and the content of a PP can be construed as originating from the preposition; but the relation between a process and the content of a bare NP can only be construed as originating from something else, specifically a verb. So a bare NP can only be directly 'assigned' some role with respect to a process when the interpretation of the process takes place, for the NP does not indicate its role itself (not even 'vaguely', in the absence of a case system of nouns). Given the meaning of Verb-third, this implies that the bare NPs are normally not to the right of a Verb beyond second position, i.e. not to the right of the middle part (cases like (33) are felt to be exceptions). But the role of a PP with respect to a process may be interpreted as indicated by the PP itself, since it contains a relational marker itself; hence the occurrence of a PP to the right of the middle part need not be considered particularly exceptional, and it may be linked directly to the rest of the sentence⁹ (as one information unit, indicated by the intonation of (34)). If a bare NP does follow a Verb-third signal, it is primarily a separate information unit (which is indicated by the intonation of (33)a), and it can only be assigned some role with respect to a process in an indirect way, specifically as 'filling in' a 'gap' in the interpretation of the process.

The effect of the Verb-third signal for post-verbal PPs is then that the way the PP relates to a process evoked by the sentence must indeed be interpreted as determined solely by the preposition; it cannot change the interpretation of the process anymore, since this has already been completed. Thus, Koops (1985) observes that the way a prepositional phrase may modify a (part of a) sentence is more restricted post-verbally than preverbally. Post-verbally, the modification is always construed on an ad hoc basis, as Koops calls it; the relation between the content of the verb and the content of the preposition is never a matter of convention. Thus, 'idiomatic' readings are excluded for post-verbal PPs. Consider (35) (cf. Koops (1985: 356)):

- (35)a ..., omdat hij er met zijn pet naar gooide
 ..., because he there with his cap at threw
 a: "because he threw his cap at it" [literal reading]
 b: "because he took a shot at it" [idiomatic reading]
- b ..., omdat hij er naar gooide met zijn pet
 ..., because he there at threw with his cap
 "because he threw his cap at it" [only literal reading]

In terms of the meaning proposed above for Verb-third, the difference between these two cases can be formulated as follows. In both sentences, the hearer is instructed to complete the interpretation of a process upon the occurrence of the verbal form gooide ("threw"). Therefore, the contents of the PP in (35)b cannot be involved in the interpretation of the process, because it is not available yet when this interpretation is to take place. So the only remaining possibility is that the process is interpreted as one of 'throwing at something'; hence there is a complete interpretation of a process when the PP occurs, which is then taken as additional information, not affecting the nature of the evoked process. But in (35)a the contents of the PP are available when the hearer is instructed to complete the interpretation of a process, so he is now free (but not obliged) to bring to bear that he knows that a combination of met zijn pet en gooien may be interpreted idiomatically, i.e. as together evoking the idea of a particular kind of process.¹⁰ In fact, no PP following a Verb-third signal can be interpreted as being related to the process evoked in the sentence in anything other than an ad hoc way, whether specifically expressed by the verb or anything else. Consider the following example (cf. ANS (1984: 1029), where several other, but similar examples are presented):

- (36)a Gisteren is het nieuwe boek van de maand verschenen
 Yesterday is the new book of the month appeared
 "Yesterday the new book of the month appeared"
- b ??Gisteren is het nieuwe boek verschenen van de maand
 Yesterday is the new book appeared of the month

As was noted above, the relation between a post-verbal PP and the rest of the sentence must be entirely due to the content of the PP itself

(specifically, of the preposition). The very specific type of relation that is present in the NP "the book of the month" (referring to the phenomenon of another book being chosen every month as a special offer during that month) is not available when the PP is post-verbal. So the PP would have to be construed as something like a time adverbial, but this conflicts with the presence of gisteren ("yesterday").

Another type of construction with an element to the right of a Verb-third sign is so-called Right Dislocation. Consider (37):

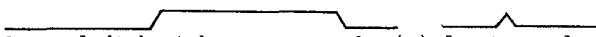
- (37) Hij zal 't best kunnen verwerken, die tegenslag
 He will it very-well be-able-to digest, that set-back
 "He'll have no trouble coping with it, the set-back"

Such examples differ in various respects from the ones we have been considering so far. First of all, there is no interpretation of a somehow incomplete process, because there is an element available for interpreting a 'second participant' besides the subject: the 'reduced' pronoun 't' (sometimes considered a 'clitic'). So in that respect it is not necessary to have intonation expressing that something is yet to follow, i.e., the tone does not have to be high up to and including the verb verwerken ("digest").¹¹ It might be, if a prepositional phrase were to follow it, which would then have to be considered as an ad hoc addition to the essentially completed sentence. But there is no PP following the middle part in (37), rather 'only' a bare NP, which cannot be assigned a role with respect to the process directly. Accordingly, the accentuation in (38) creates an incomprehensible message (cf. (34)), but the one in (39) does not (cf. (33)b):

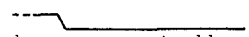
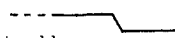
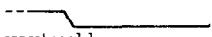
- (38) ?? Hij zal 't best kunnen verwerken die tegenslag
 He will it very-well be-able-to digest that set-back
- (39) Hij zal 't best kunnen verwerken die tegenslag
 He will it very-well be-able-to digest that set-back

The 'dislocated' NP in (39) is not felt to be a separate information unit, because it is not accented; the function is understandably sometimes

described as "afterthought" (cf. Dik (1978: 153)). It is also possible, of course, to produce an accent on die tegenslag in (37), in which case it is felt to be a separate information unit (the separation may in written Dutch be indicated by means of a comma, a semi-colon, or a full stop):

- (40)  Hij zal 't best kunnen verwerken(;) die tegenslag
He will it very-well be-able-to digest(;) that set-back

Now observe that the same phenomenon occurs with what we called "dislocated adverbs" in 3.2.1: even if an adverb, for example an adverb of time like morgen ("tomorrow") or gisteren, may in itself bear the last accent without giving rise to an 'echo interpretation', it is impossible to produce it with the last accent of an information unit when it is to the right of a Verb-third sign: ¹²

- (41)a  Hij zal toch morgen vertrekken
He will yet tomorrow leave
"He will yet be leaving tomorrow"
- b ??  Hij zal toch vertrekken morgen
He will yet leave tomorrow
- c  Hij zal toch vertrekken morgen
He will yet leave tomorrow
"He will yet be leaving tomorrow"
- d  Hij zal toch vertrekken; morgen
He will yet leave; tomorrow
"He will yet be leaving; tomorrow"

Note that an adverb is an adverbial which does not, unlike a prepositional phrase, contain an explicit marker of its function with respect to some 'bigger framework'. Therefore, if it occurs after a Verb-third signal, it cannot function as an immediate addition to the interpretation of a process which is already essentially completed and the intonation which indicates precisely this, (41)b, is not possible. The pattern is somewhat different

for examples with an adverb that functions as a predicate modifier; consider the following cases (adapted from De Haan (1976); cf. chapter 3, note 8):

(42)a Louise heeft de koeien machinaal gemolken
 Louise has the cows mechanically milked
 "Louise milked the cows mechanically"

b ?? Louise heeft de koeien gemolken machinaal
 Louise has the cows milked mechanically

c ?? Louise heeft de koeien gemolken machinaal
 Louise has the cows milked mechanically

d Louise heeft de koeien gemolken; machinaal
 Louise has the cows milked; mechanically
 "Louise milked the cows; mechanically"

The explanation for (42)b is the same as for (41)b: lacking a relational marker, the adverb cannot be taken as directly related to the process if it follows a Verb-third signal, so it cannot be in the same information unit. But what about (42)c? Recall that we have characterized predicate modifiers as evoking the idea of an aspect of a process; the problem with (42)c is then that the Verb-third signal implies that the interpretation of the process is completed when the idea of an aspect of the process is evoked, which would require that the interpretation of the process was not yet complete. More generally: adding an unaccented 'afterthought' after a Verb-third signal cannot change the interpretation of the process, so in general only those elements can occur as 'afterthought' that do not suggest such a change; if one does want to change the interpretation of a previously evoked process, one needs at least one accent, thereby creating a new comment, to change the common body of information (which then includes the message conveyed by the previous utterance); this is illustrated by (42)d.

This provides an answer to the first question at the beginning of this section: why is it that 'sentence adverbials' occur far more easily to the right of the middle part than 'predicate adverbials'? The former, as

providing assessments 'from outside' the evoked state of affairs do not 'contradict' the meaning of the Verb-third signal, whereas the latter do. Since adverbials of time may generally be taken as relating the message conveyed by a sentence to a specific part of the common body of information, it is also easy to interpret them if to the right of a Verb-third signal, as (41)b illustrates: they do not have to be taken as suggesting a specific type of process, so there is no special problem in completing the interpretation of the process before the occurrence of a time adverbial. But if it is plausible that the idea evoked by a predicate adverbial also serves to relate the message to a specific part of the common body of information (i.e. if it is plausible to take it as a "domain adverbial"), this explanation suggests that a predicate modifier could occur to the right of a Verb-third signal without specific interpretive problems. Thus, consider the following examples ((44) is identical to example (19) in 3.2.1):

- (43) Louise had de koeien zo gemolken machinaal
 Louise had the cows in-a-minute milked mechanically
 "Louise had milked the cows in a minute, mechanically"

- (44) Ik denk dat het eenvoudig niet kan mechanisch
 I think that it simply not can mechanically
 "I think that it is simply impossible, mechanically"

Let us now turn to the second question from the beginning of this section, formulated somewhat more generally (in view of the preceding discussion): why is it that sentences with an adverbial (specifically a comment modifier) to the right of a Verb-third signal do not have to be contrastive, although the comment is to the left of the adverbial? In order to answer this question, consider the explanation we have given in 5.2 for the contrastiveness of this order if it occurred in the middle part. Recall schema (15):

(15)a ...X... Adverbial ...Y...

b ...X... Adverbial ...Y...

The explanation for the contrastiveness of (15)a was as follows. If the adverbial qualifies the status of the comment with respect to the common body of information, it does not itself belong to the comment; hence the information in Y does not belong to the comment either, and since Y provides information on the evoked state of affairs, the comment part of the evoked state of affairs is presented as perceivable independently of the state of affairs as a whole. With a 'dislocated' adverbial, however, the situation is quite different from (15)a. Consider schema (45):

(45) ...X.....Y... Adverbial

Given the effect of the Verb-third signal on the possibilities for adverbials to occur in the position indicated in (45), the comment part is not followed by information on the evoked state of affairs, but 'only' by information that somehow qualifies the relation of the comment to the common body of information. The comment part of the evoked state of affairs is thus not presented as perceivable independently of the evoked state of affairs as a whole, so the sentence does not have to be interpreted contrastively.¹³ The effect of the order of (45) is that the entire state of affairs, both the given information and the comment part, are presented by the speaker as (in principle) perceivable independently of a specific type of relation to the common body of information, which simply explicates what is meant by the statement that the adverbial is interpreted as an 'afterthought'.

Notice that utterances corresponding to the schema (45) may occur without a Verb-third signal preceding the adverbial; cf. (46):

(46) Piet had de kaartjes gelukkig
 Piet had the tickets fortunately
 "Piet had the tickets, fortunately"

Thus (46) does not have to be taken as a contrastive sentence, for the comment is not followed by given information, and the adverbial is interpreted as an 'afterthought', for the entire evoked state of affairs is presented as (in principle) perceivable independently of the idea evoked by the adverbial.

Notice also that the considerations put forward in this section provide at least a partial answer to the question of what constitutes the right-hand boundary of a sentence, i.e. how the end of an information unit is recognized. The occurrence of a Verb-third signal marks the interpretation of the process evoked in the sentence as to be completed. Only elements that can be linked to the interpretation of that process without an appeal to the meaning of elements preceding them (mainly PPs in a restricted type of interpretation) may then be considered to be part of the same information unit, in other words, of the same sentence. If a sentence, in this sense, is followed by something that does not specify its relation to some process itself, and that may be interpreted as not changing the interpretation of the previously evoked process, it may occur, as a so-called afterthought, to the right of a Verb-third signal without an accent. In all other cases, material following a Verb-third signal is interpreted as belonging to a new information unit.

It may be concluded then that, given the specific function of the occurrence of a verb beyond the second position of a clause in Dutch, the explanation provided for the generalizations on comment modification in 5.2 also explains the apparent 'exceptions' to the generalizations involving a rightmost position of adverbials.

5.4.2 On sentence-initial adverbials

There is one question left now from 5.1 that we have yet something to say about: what makes comment modifiers in the leftmost position of sentences behave differently than when occurring in the middle part? Let us first reformulate what the difference actually consists of. Recall the examples (3) and (4):

- (3) ?? ... dat misschien Piet Marie gezien heeft
 ... that perhaps Piet Marie seen has
- (4) Misschien heeft Piet Marie gezien
 Perhaps has Piet Marie seen
 "Perhaps Piet saw Marie"

The 'oddness' of (3) was explained in 4.3 as involving an inference in terms of the tendency for the comment to be to the right of a comment modifier: the order of elements in (3) suggests that Piet could belong to the comment, but the accentuation of (3) virtually excludes this. The same kind of argument had been used to explain the 'oddness' of unaccented personal pronouns to the right of a comment modifier: it is somewhat incoherent to suggest that an element that presents its referent as independently perceivable could be integrated with other elements into the comment. In this case, too, a comment modifier in sentence-initial position behaves differently, as is illustrated by example (2) from 5.1:

- (2) Waarschijnlijk heeft hij niet genoeg opgelet
 Probably has he not enough attended
 "Probably he did not pay enough attention"

The question can thus be reformulated as follows: why is it that a comment modifier in sentence-initial position does not suggest that all material to its right could be part of the comment?

The answer again involves a consideration of the explanation provided for the generalizations on comment modification in 5.2. The explanation was that any material preceding an adverbial (that did not itself belong to the comment) was presented as perceivable independently of material following the adverbial, and one normally does not introduce independently perceivable ideas into the discourse as new. But as in the case of 'dislocated' adverbials, the situation with sentence-initial adverbials is not an instance of schema (15); consider (47):

- (47) Adverbial ...X.....Y...

If a comment modifier is the first element of an information unit, no piece of the same information unit precedes it; so if any part of the evoked state of affairs is presented as perceivable independently of another, it is not because of the position of the comment modifier; in first position, the adverbial is irrelevant for the interpretation of what part of an evoked state of affairs is to be interpreted as perceivable independently of another. And only when the position of an adverbial is at all relevant for this aspect of the interpretation of a sentence can the inference that

all independently perceivable information precedes the adverbial be made. In other words: it is only (somewhat) incoherent (not a particularly clear presentation of the information structure of a sentence) to have some but not all independently perceivable ideas precede the comment modifier, but there is no problem at all in having all other information following the comment modifier. Only if the comment modifier is a non-first element in its clause does it function to indicate independent perceivability of what precedes it and hence allow for the inference that, apparently, all independently perceivable information has been provided; there simply is no reason and no room for the latter conclusion if the comment modifier is itself the very first element of a clause.

The situation of schema (47) never arises in so-called subordinate clauses, which relates directly to the general character of such clauses: they perform some specific function within some 'bigger framework' (generally the state of affairs evoked by a matrix clause) and the character of this function is indicated (more or less specifically) by the first element of the subordinate clause (a subordinating conjunction, or a relative (or interrogative) pronoun (or adverb)). Consequently, there is always some aspect of the state of affairs evoked by a subordinate clause, perceivable independently of that state of affairs (viz. the aspect of its role or function in another state of affairs),¹⁴ which is presented prior to an adverbial in a subordinate clause. And since there is always some material preceding a comment modifier in subordinate clauses, the presence of such a modifier always involves a situation of the type represented in schema (15), and never one of the type represented in (47).

Note, furthermore, that no special effects are to be expected from positioning a comment modifier sentence-initially for the interpretation of the comment modifier itself. The point is that the feature that we have established as essential for the class of adverbials that typically function as comment modifiers was precisely that they evoke the idea of assessment 'from outside' the evoked state of affairs, rather than an idea that provides information about some aspect of the evoked state of affairs, hence that they qualify the relation between the comment and the common body of information (if they do not constitute the comment themselves). Presenting such an adverbial as the first element in an information unit thus does not 'isolate' a piece of the evoked state of affairs from the

rest, simply because the information they provide does not contribute to the evoking of the state of affairs as such. Consider the following example:

- (48) Hopelijk neemt Piet vanavond een lekkere fles wijn mee
 Hopefully takes Piet tonight a good bottle wine along
 "Hopefully, Piet will take along a good bottle of wine tonight"

In such examples as (48), there is no impression of the initial adverbial being 'preposed', i.e., of its occurring in another position than where it would 'naturally' belong, although such sentences do not have the subject in initial position and are thus called cases of 'inversion' in traditional grammar, and described by means of a preposing rule in (at least some versions of) generative grammar. A sentence-initial position is in fact more or less neutral for adverbials of this kind. This is not the case with predicate modifiers, as is to be expected in view of the way we have characterized them before (evoking the idea of an aspect of a process, normally not presented as perceivable independently of the evoked state of affairs; consider (49) and (50):

- (49) Machinaal molk Louise de koeien
 Mechanically milked Louise the cows
 "Mechanically, Louise milked the cows"
- (50) Met pijl en boog joeg men uitsluitend op konijnen
 With arrow and bow hunted one exclusively at rabbits
 "With bow and arrow one exclusively hunted rabbits"

The sentence-initial position of these adverbials brings about a certain 'isolation' of an aspect of the evoked state of affairs, which is similar to a position to the left of a comment modifier; this is especially clear from (50), which is easily interpreted with a 'domain' reading of the adverbial. Thus, although comment modifiers in sentence-initial position do not contribute to the division of the informational content of a sentence in an independently perceivable piece and the rest, their general character as explained in 5.2 is the same in this position as in others.

Thus, we now have established that the way the generalizations on comment

modification were explained in 5.2 in fact also contains an explanation for the difference between the behaviour of sentence adverbials in the middle part and their behaviour in sentence-initial position.

5.5 Conclusion

In chapter 4, we have first of all established the generalizations that sentence adverbials specifically contribute to the interpretation of the way the comment part of the information in a sentence is related to its discourse, and that the comment tends to occur to the right of such comment modifiers. These generalizations are manifested in several different phenomena, ranging from the distribution of accented and unaccented personal pronouns and the interpretation of indefinite NPs to the distribution and interpretation of adverbial phrases relative to each other and to the subject NP and the verbal predicate. In the course of chapter 4, we examined the relation between such elements and comment modification in terms of the meaning and use of several of these elements on the one hand and the generalizations on the other.

We then went on, in chapter 5, to explain these generalizations themselves, as well as apparent exceptions to them, in terms of the meaning of the adverbials involved and the function of word order. An important distinction that was made is the one between, on the one hand, adverbials that qualify the relation between the evoked state of affairs and the common body of information (specifically, the relation between the comment and the common body of information), and, on the other hand, adverbials that evoke the idea of an aspect of a process or state and thus suggest the simultaneous perception of some process or state as manifesting the aspect involved. The ideas evoked by adverbials of the latter type are thus not normally presented as perceivable independently of the evoked state of affairs, while the former are not normally a part of the comment (and if they are, nothing else is).

It was argued that this provides a basis for an understanding of the generalizations established before, together with the idea that of two different pieces of information, the one that is produced 'first' is thereby presented as perceivable independently of the one that is produced

'later'. Although this seems to be a very natural function of word order, the possibility has not been excluded that it must still be considered to have the status of the semantic side of a sign (cf. also 5.3.2). But in either case, it has become clear that word order does not function as a sign for one or more categories of adverbials. The assumption that it does may then be characterized as another instance of the "concreteness fallacy" (cf. 1.1). In terms of our analysis, it is sufficient to know the lexical meaning of adverbials, the constant, abstract meanings of non-lexical signs like the indefinite article, personal pronouns, Verb-third, and, perhaps, the abstract function of word order, in order to be able to use an adverbial in a sentence, also as an instrument to present certain pieces of information as perceivable independently of others.

Finally, I want to make a few remarks on the question to what extent the analysis developed here might be applicable to other languages. For a language 'lacking' a middle part, the present analysis does not entail consequences, I think, since the function of the position of a verb - which in effect 'creates' the middle part in a sentence - seems specific to Dutch. Thus it is not to be expected that the order of adverbials would function in the same way in English as it does in Dutch, English lacking a middle part. Furthermore, the fact that the position of an adverbial is available as an instrument for separating 'independent' pieces of information from others also presupposes, firstly, that the position of an adverbial does not as such constitute a sign, with some specific, constant meaning, and secondly, that it does not interfere with another word order sign (for example, the position of the (finite) verb in the sentence or with respect to some other element), and both assumptions would have to be argued for separately for every language under investigation. On the other hand, there are certainly reasons for expecting German to behave rather like Dutch, specifically, to expect the order of adverbials to be available for separating pieces of information with a different status, because German seems to have a middle part analogous to Dutch in the relevant respects. These remarks are not intended as in any way conclusive about German, English, or any other language, but only as indications that the analysis developed here, although it is partly based on language-independent considerations of a general, functional nature, nevertheless need not imply that the same phenomena show up in the same form in different languages, because it also crucially involves specific meanings

assumed for specific signs.

As far as Dutch is concerned, we have now finished the analysis of the relation between the position of adverbials in a sentence and the interpretation of the sentence and parts of it. The next chapter will be devoted to the question whether the approach developed so far may also be fruitfully applied to other types of sentence elements.

On Ordering Participants

6.0 Introduction

In the chapters 4 and 5, we were concerned with the description and explanation of the distribution of adverbial modifiers within the sentence and interpretive variation correlated with it. One of the results is the rejection of the idea that the position of adverbials functions as a sign of a specific type of modification. Ultimately, we have made a distinction between different types of information provided by adverbials which at least superficially resembles the distinction between "external" and "internal" modification (cf. 3.1 and 5.3.2), but rather than reducing the distinction to a purely formal one, we have attempted to gain a better understanding of its substance and to describe the distributional phenomena as consequences of the particular meanings involved and a very general function of word order. In this chapter, we will try to provide arguments of the same type for sentence elements that relate to 'arguments' rather than 'modifiers', i.e. elements that are bare noun phrases ("bare" in the sense of not being the complement of another element, specifically a preposition), performing roles that are traditionally labelled "subject", "direct object" and "indirect object". That is, we will try to argue that, in Dutch, restrictions on the ordering of NPs do not provide evidence that word order is a sign for these roles, but rather that these restrictions, as far as they hold, are to be viewed as consequences of other, more fundamental distinctions, along lines similar to those that were argued to be relevant to adverbial phrases in chapter 5. To the extent that this attempt is successful, we will not only gain a certain understanding of the relation between the interpretation of roles of NPs and their position in a sentence, but also provide an argument that the approach to problems of grammar, and specifically word order, that is advocated in this study, may be fruitfully applied to more descriptive areas than those discussed in the chapters 4 and 5.

Thus, the purpose of this chapter is not to provide an exhaustive description of all factors involved in the distribution and interpretation

of noun phrases, but to provide arguments for the claims, firstly, that the traditional 'grammatical functions' cannot be viewed as signified by word order, and secondly, that the relations between the interpretation of the roles of NPs and their position in the sentences (that definitely do exist) can be understood at least partly in terms similar to those developed in chapter 4 and specifically in chapter 5. It will be clear that the claim that word order does not function as a sign indicating the traditionally recognized grammatical functions has certain consequences for the status of these notions, at least in as far as other formal means cannot be said to provide signs for these functions either; we will be discussing these consequences explicitly.

The point of departure for our investigation will be the position and the interpretation of so-called 'pure indirect objects', i.e., bare noun phrases with this traditionally recognized role.¹ This will provide a useful introduction to the relevant issue, partly because it has already been established in the literature specifically with respect to such indirect objects that there is some word order variation correlated to certain interpretive aspects.

6.1 The distribution and interpretation of 'subjects' and 'objects'

6.1.1 The problem of the 'indirect object'

It is a long established fact in Dutch grammar that certain restrictions seem to exist on the order of bare NPs relative to each other; as for the indirect object, specifically, the examples in (1) show that it can hardly occur anywhere else than in between the subject and the direct object:

- (1)a Toen heeft Jan het kind zijn laatste boterham gegeven
 Then has Jan the child his last sandwich given
 "Then Jan gave the child his last sandwich"
- b ??Toen heeft Jan zijn laatste boterham het kind gegeven
 Then has Jan his last sandwich the child given

- c Toen heeft het kind Jan zijn laatste boterham gegeven
 Then has the child Jan his last sandwich given
 "Then the child gave Jan his last sandwich"

Example (1)b is 'odd' in that the lexical content leads one to think that the child must be the 'receiver', but the order suggests something else, and (1)c is straightforwardly interpreted as saying that Jan got a sandwich from the child.

The oldest grammar of Dutch containing explicit syntactic information already mentions that the so-called dative object generally precedes the so-called accusative object (Moonen (1706: 324/5)), and more recent grammars repeatedly make the same point.² Thus, there is a traditionally recognized relation between the external phenomenon of word order and some aspect of interpretation, labelled "indirect object", and the question now is: is this relation one of a form and a meaning, i.e., is the position the sign for the function 'indirect object', or is it one of a symptom and one or more causes? In other words, is this relation between position and role the effect of some combination of more fundamental meanings?³ We will now first present some general as well as specific arguments against the first view, and then go on with an attempt to provide a description of the relation in terms of the second view.

Note that the 'rule' for the relation between position and 'indirect object role' will have to be formulated as something like "of two objects, the leftmost one is the indirect object". This means that the interpretation of a specific NP as 'indirect object' is not possible upon the occurrence of the NP itself, but depends on the question whether there is still another object following it. That is, the question whether an NP is to be interpreted as 'indirect object' cannot be answered upon the occurrence of the NP itself. As observed by Paardekooper (1977: 401), the word order phenomenon related to this aspect of interpretation is strictly relative (cf. 5.3.2 for a similar situation in another area). If the 'rule' had been, say, that an NP in fourth position, or the first NP beyond the third position in a sentence, is interpreted as 'indirect object', the ordering related to the interpretation would not be of such a strictly relative nature (cf. the characterization of "Verb-third" in 5.4.1, for example). We now have a situation in which the sentence element exhibiting the

interpretive aspect does not itself exhibit the related formal aspect, which makes it difficult to assign the 'rule' the status of a sign.

Furthermore, in view of such examples as (2) and (3), where the 'indirect object' follows the 'direct object', it appears that the 'rule' as stated does not really hold generally, so that it is at best a formulation of what is 'normally' the case:

- (2) Je moet dat je kinderen eens vertellen
 You must that your children just tell
 "You should just tell that to your children"

- (3) [Ik denk,] dat ik dit boek niemand zou willen aanbevelen
 [I think] that I this book nobody would want recommend
 "[I think] I would not recommend this book to anyone"

And it has been noted several times before ⁴ that NPs with roles analogous, if not identical, to those of canonical indirect objects may precede the subject in certain types of clauses which lack a direct object:

- (4) Gelukkig wordt het kind die ellende bespaard
 Fortunately gets the child that misery saved
 "Fortunately, the child will be saved that misery"

- (5) Nu is mij alles duidelijk
 Now is me everything clear
 "Now everything is clear to me"

Thus, there are both conceptual and empirical problems with the idea that restrictions on the position of the 'indirect object' relative to other NPs indicate that the position somehow functions as a sign for the role; the alternative of considering them to be consequences of other, more fundamental relations between forms and functions therefore appears to be at least a possibility worthy of serious investigation. In order to undertake this investigation, we must take a closer look at both the interpretive and the formal aspects of the relation between the role of 'indirect object' and its position, i.e. on the one hand at the question what - if anything at all - is common in the functions of constituents that

are traditionally called "indirect objects", and on the other hand at the question what the role of word order might be with respect to bare NPs.

6.1.2 The 'peripheral participant'

Elements called "indirect object" generally correspond to elements in the 'dative' case in other languages exhibiting some system of flexion. This is reflected in traditional grammars in that the content of the indirect object is (implicitly) taken to be similar, if not identical to the content of the dative. Thus, Den Hertog (the Dutch grammarian at the end of the 19th century who provided the comprehensive overview of the system of traditional grammar that is still in use today) uses "dative object" as just another term for the same sentence elements (cf. Den Hertog (1972: 57)), just like Moonen (1706) had done in describing 17th century Dutch.⁵ Apparently then, there is felt to be sufficient correspondence between the use of NPs marked as dative in other languages and the use of certain bare NPs in Dutch in order to label the latter as manifestations of a grammatical category with a function that is at least similar to the function of the dative case. But the question still is: "What is the substance of this function?". However, it is clear that, in trying to find an answer, it is legitimate, if not necessary, to look at ideas on the meaning of the dative case (in languages where it exists) too.

The answer that is traditionally given to the question about the nature of the indirect object in Dutch is that it indicates a participant in the state of affairs described by the sentence which performs an object role in this state of affairs and is at the same time actively participating in it. It is in this light that one may understand the other term frequently used for this sentence element, "meewerkend voorwerp" (literally: "co-operating object"): ⁶ the prefix mee- ("co-") in this term indicates that the activity of the participant involved is of secondary importance; more specifically, it is not the Agent (cf. Den Hertog (1972: 56)). Thus, this traditional characterization shows considerable resemblance to some more recent proposals for the meaning of 'dative' in other languages. Zubin (1975: 200ff), for example, proposes that the three cases Nominative, Dative, and Accusative in German mean, respectively, "Most active participant", "Less active participant" and "Least active participant"⁷

(cf. also García (1975) for a similar proposal concerning Spanish pronouns, and Huffman (1983) on French pronouns).

The main problem with the idea that the general nature of the indirect object is to characterize a participant as 'somewhat active, but not to the greatest possible degree' is that it is not general enough. According to Den Hertog (1972: 58), the relative activity of the indirect object implies that there is an effect of personification in every case a non-human NP occurs as an indirect object; i.e., in an example like (6), "the book" is presented 'as if' it were a person:

- (6) Hij heeft het boek een andere plaats gegeven
 He has the book another place given
 "He has moved the book"

This way of putting things is, in my opinion, simply not correct: (6) need not involve personification, or metaphorical use of the phrase het boek, at all (cf. also Kraak & Klooster (1968: 198)). The same holds in the case of (7):

- (7) Één keer in de week geef ik de planten kunstmest
 One time in the week give I the plants fertilizer
 "Once a week I feed the plants with fertilizer"

Secondly, there is a general problem with passive sentences for a proposal like Zubin's, at least if it is applied to Dutch. Consider sentence (4) again, repeated here for convenience:

- (4) Gelukkig wordt het kind die ellende bespaard
 Fortunately gets the child that misery saved
 "Fortunately, the child will be saved that misery"

The indirect object het kind ("the child") does not have to indicate a participant which is less active than the subject die ellende ("that misery"); in fact, if there must be a difference between the two in terms of activity, it would be more likely that the indirect object is interpreted as indicating the more active participant. The same applies to (5), if the role of mij in this sentence is identified as indirect

object: 8

- (5) Nu is mij alles duidelijk
 Now is me everything clear
 "Now everything is clear to me"

The conclusion must be, it seems, that the characterization of 'indirect object' as "relatively active participant", or something of that kind, still focusses too much on states of affairs involving the transfer (more or less literally) of something indicated by a direct object; as such, it does not offer sufficient possibilities to generalize over the content of the roles of NPs analyzed as indirect objects.

A better perspective for a more generally valid hypothesis is available, I think, in the following characterization of the content of an 'indirect object': the NP evokes the idea of an object in some state of affairs (i.e. of something undergoing influence of something else in that state of affairs) which is at the same time not controlled completely by that influence. Thus, the similarity between cases like (1)a and (7) is that the condition of the sandwich and the fertilizer (as a sandwich and as fertilizer) is normally understood as affected essentially by the evoked states of affairs, while the condition of the child and the plants (as a child and as plants) is not interpreted as being affected that essentially. In other words, the change brought about in the case of the sandwich and the fertilizer may come close to what is maximally possible (in view of the nature of sandwiches and fertilizer), but the change brought about in the case of the child and the plants is not presented as close to maximal (again, in view of the nature of children and plants). Note that it is not always necessary to interpret the condition of the referent of the 'direct object' as affected essentially. In (6), for example, it is not clear that the condition of the place involved should be said to be essentially affected, but the relevant point here is that in any case, the condition of the book (as a book) is presented as definitely not changed essentially by the moving. Thus, a 'direct object' evokes the idea of an object (something undergoing some influence in a state of affairs), while an 'indirect object' additionally evokes the idea of its not being controlled completely by that influence.

By saying that the relation between a process and one of its participants is such that the condition of the participant is affected, but not in a way that comes close to what is maximally conceivable, we are in effect applying Jakobson's (1966) proposal for the meaning of the dative (in Russian) to the bare NPs called indirect objects (in Dutch): Jakobson proposed that the dative case in Russian signals both that the referent of the NP is an object (which feature it has in common with the accusative), and that it occupies a "peripheral position" in the complete interpretive contents of the utterance.⁹ The fact that a 'dative object' presents its referent as not controlled completely by the evoked state of affairs has the important consequence that this object is presented as independent of the evoked state of affairs:

Die geringere Innigkeit der Verbindung des Dativobjekts mit der ihm geltenden Handlung, im Vergleich mit dem Akkusativobjekt äussert sich vor allem darin, dass der D[ativ] die von der Handlung unabhängige Existenz des Gegenstandes ankündigt, während der A[kkusativ] darüber nichts besagt und ebenso gut ein äusseres wie ein inneres Objekt bezeichnen kann. (Jakobson (1966: 73)).

That is, an accusative may present both 'affected' and 'effected' objects, but a dative never presents an 'effected' object. A dative, we might say, never presents its referent as completely included in the evoked state of affairs.¹⁰ The same holds for NPs called 'indirect objects' in Dutch, it seems. In (7), for example, the general interpretation is that the only role of the fertilizer is to serve as food for the plants, i.e. to perform the role described in the present sentence, but the plants are not interpreted as performing only the role of being fed with fertilizer. Something similar holds for sentences evoking the idea of actual transfer: the idea of the transferred object may be interpreted as being evoked essentially to perform the role it does in the presently evoked state of affairs, but the receiver never is. Sentence (1)a ("Jan gave the child his last sandwich"), for example, is generally interpreted in such a way that the idea of the last sandwich is evoked just to have it perform the role of being given, but the idea of the child is not evoked just to have it perform the role of being given a sandwich. In specific cases, the 'direct object' may also be interpreted as not only performing the presently evoked role, but the point is, again, that this holds generally for indirect objects. This aspect of the interpretation of 'indirect objects' will play an important role in our analysis of the relation between the order of NPs

and their interpretation. But we will first present a number of other phenomena where it seems to provide some perspectives for a better understanding.

Note, firstly, that human beings are not normally perceived as performing just the one role they are performing in a specific state of affairs. Thus, they are 'natural candidates' for indirect object roles: given the human nature of language users, human beings will easily be regarded as participating crucially in several different events and situations. Thus, the observation by Den Hertog (1972: 57) that indirect object roles are generally performed by NPs indicating human beings seems explicable without the need to incorporate it into the content of the category itself, thus avoiding the necessity of some implausible analysis of sentences like (6) and (7) (with an appeal to personification, or something like that). Furthermore, it seems reasonable to suppose that in the case of a human referent of an indirect object, the human character itself, in combination with the interpretive aspect "not controlled completely", provides the ground for the fact that the referent of the indirect object may appear as relatively active.

Secondly, there are some 'syntactic' phenomena that are better understood in terms of the characterization proposed above than in terms of the notion "relatively active participant". Certain adjectives functioning as so-called predicative adjuncts may relate both to subjects and to direct objects, but not to indirect objects.¹¹ Consider the examples in (8) and (9):

(8) De buurman heeft zijn gasten dronken naar huis gebracht
The neighbour has his guests drunk to home taken
"The man next-door has taken his guests home, drunk"

(9) De buurman heeft zijn gasten dronken een lift gegeven
The neighbour has his guests drunk a lift given
"The man next-door has given his guests a lift, drunk"

Sentence (8) is ambiguous: either the man next-door was drunk when he took his guests home, or the guests were drunk when the man next door took them home.¹² But sentence (9) has only one reading: the man next-door was

drunk when he gave his guests a lift. The explanation appears to be the following.

As a separate sentence element, an adjectival predicative adjunct does not function 'subordinately', at the level of the interpretation of the NP only (say, in order to distinguish one possible referent of buurman from another), but it functions at the level of the interpretation of the sentence (note, specifically, that an NP and such an adjunct need not be adjacent in order to be related interpretively). The referents of the NPs are presented to be identifiable independently of their being drunk or not, and the sentence as a whole conveys the message that the bringing home and the drunkenness of some participant are to be viewed as somehow closely connected, according to the speaker. The type of the connection is not specified by the sentence itself, and may thus vary according to the situation. With "drunk" relating to the guests, for example, sentence (8) might be used to praise the man next door (for stopping his drunken guests from driving themselves), as well as to blame him (for letting his guests get so drunk that they had to be taken home). But in any case, a more or less close connection of some kind between "taking home" and the idea evoked by "drunk" is assumed. Thus, the adjective functions directly at the level of the interpretation of the evoked state of affairs. On the other hand, its lexical meaning consists of some property of a living (mostly human) being.¹³ So a property of an entity is presented as a determining factor for the occurrence, the character, or the evaluation (or yet some other aspect) of the process indicated by the main verb. Therefore, the entity to which an adjectival predicative adjunct applies will not be interpreted as one that is explicitly presented as occupying a peripheral position with respect to that process: how could a property of a participant be immediately involved in a process if the role of that participant as such is peripheral? In other words, if an adjective specifies a property of an entity as closely involved in the evoked process, the entity exhibiting that property will itself be closely involved, so that it will not be the entity indicated by an indirect object.

Note, incidentally, that it is not necessary for such an entity to be explicitly mentioned within the sentence at all, as long as it can be inferred, as in passive sentences and in certain infinitival constructions:

- (10) Het huiswerk werd enthousiast afgemaakt
 The homework was enthusiastically finished
 "The homework was finished enthusiastically"

- (11) Ik zal er ijverig aan laten werken
 I will there diligently on have work
 "I will have it worked on diligently"

The fact that the 'agent' of the evoked state of affairs is not explicitly indicated in (10) nor in the 'infinitive complement' in (11) does not prohibit the occurrence of a predicative adjunct; in itself, this indicates no more than that a property of an entity is closely connected with the evoked process, so that there must be some entity closely involved in the process; it does not require that this entity be actually named within the same sentence, as long as close involvement of some entity can be inferred. In the same kind of constructions, the entity of which a property is said to be closely connected with the evoked process may be indicated otherwise than with a bare NP, specifically, by a prepositional door-phrase. For example:

- (12) Het huiswerk werd door 5 van de 7 leerlingen enthousiast afgemaakt
 The homework was by 5 of the 7 pupils enthusiastically finished
 "The homework was finished enthusiastically by 5 of the 7 pupils"

Meanwhile, it should be clear that very often a predicative adjunct will relate to a bare NP, specifically to the subject, which is indeed the general rule observed in traditional grammars.

Another point concerns the observation by Den Hertog (1972: 58) that the only type of clauses that may perform indirect object roles are 'free relatives', i.e. relative clauses without an antecedent. Den Hertog explains this by saying that only clauses of that type can indicate human beings, in accordance with his characterization of the indirect object. However, we have rejected this characterization as not generally valid, so we will have to show either that Den Hertog's observation is wrong with respect to non-human indirect objects, or that there is an alternative explanation within the present framework. As a matter of fact, it is clear

that the observation is generally valid:

(13)a ??Piet geeft dat hij werkt de voorkeur
 Piet gives that he works the preference

b ??Piet geeft het de voorkeur dat hij werkt
 Piet gives it the preference that he works

As (13) illustrates, a clause that is introduced by an 'ordinary' subordinating conjunction cannot occur as an indirect object; there is no difference if the clause is 'extraposed'. Now consider (14):

(14) Piet geeft wat hij zelf bedacht heeft verre de voorkeur boven
 al het andere
 Piet gives what he himself invented has by-far the preference
 over all the other
 "Piet by far prefers what he has invented himself over
 everything else"

As we see, the free relative clause wat hij zelf bedacht heeft ("what he has invented himself") does not cause a problem at all. On the one hand, this illustrates the general validity of Den Hertog's observation, but at the same time it shows the limitations of his explanation: the difference between (13) and (14) is not that the relative clause indicates a human being. Thus, we will again have to look for a more fundamental explanation.

As we have argued before, following Jakobson's characterization of the dative, the peripheral character of the indirect object participant implies that it is presented as not 'included' in the evoked state of affairs, and that it exhibits other characteristics and functions than the ones evoked in the present utterance. This relates immediately to a difference between clauses that are introduced by a subordinating conjunction and clauses introduced by a relative pronoun: the former evoke only the idea of a state of affairs (they only express 'propositions'), while the latter evoke the idea of something that may be referred to by means of a pronoun (and is presently characterized in terms of a state of affairs). Thus, a free relative evokes the idea of something exhibiting other characteristics than those provided by the present description, but an 'ordinary' subordinate clause does not. Consider the subordinate clauses in (15):

- (15)a Ik betreur dat je het gezegd hebt
 I regret that you it said have
 "I regret that you said it"
- b Ik betreur wat je gezegd hebt
 I regret what you said have
 "I regret what you said"

In (15)a, what is regretted is the state of affairs of "you having said it" as such, i.e. what is regretted is exhaustively characterized by the given description ("that you said it"). In (15)b, on the other hand, what is regretted is the content of the hearer's speaking, i.e. what is regretted is not exhaustively characterized by the given description ("what you said"). The idea evoked by an indirect object is such that it is never thought to be exhaustively characterized within the present utterance, so it is understandable that free relatives are the only types of subordinate clauses that occur in this role. The distinction is also relevant in the case of certain nominal phrases. Consider (16):

- (16) Ik heb die uitspraak altijd betreurd
 I have that statement always regretted
 "I have always regretted that statement"

This sentence has two readings: one in which the fact that the statement was made is regretted (what is regretted is exhaustively characterized by the description "that statement"), and one in which the contents of the statement is regretted (what is regretted is not exhaustively characterized by the description "that statement"). As expected, the former reading does not occur when such an NP is an indirect object: (17) expresses that preference is given to the contents of the statement, not to the fact that it has been made:

- (17) Ik heb die uitspraak altijd de voorkeur gegeven
 I have that statement always the preference given
 "I have always preferred that statement"

Similarly, (18) expresses either that the referents of the subject appreciated the fact that the hearer made his performance, or that they

appreciated the character of the performance (the way of acting, for example), but (19) allows only for the reading that concerns the character of the hearer's performance:

- (18) Zij hebben je optreden erg op prijs gesteld
 They have your performance very-much appreciated
 "They appreciated your performance very much"
- (19) Zij gaven je optreden extra glans
 They gave your performance extra splendour
 "They added even more splendour to your performance"

It seems then that we are able to provide a characterization of the notion "indirect object" which both is sufficiently general and allows for the explanation of several specific properties of indirect objects. Before concluding this section, we will have a look at cases of bare NPs labelled "indirect objects" without a direct object being present. The question is whether such NPs are actually correctly labelled "indirect objects". Consider a case like (20):

- (20) Nu is het mij duidelijk
 Now is it me clear
 "Now it is clear to me"

In fact, the classification of mij ("me") in sentences like (20) as an indirect object is generally not justified in traditional grammars. Apparently, such cases are felt to exhibit sufficient interpretive resemblance to other sentences (for example passive ones) in which the object is also classified as an indirect one to warrant the conclusion that the same role must be involved:

- (21) Toen is het mij eindelijk duidelijk gemaakt
 Then is it me finally clear made
 "Then it was finally made clear to me"

Since het ("it") is called a direct object in the active counterpart of (21) and the role of mij ("me") seems to be the same both in (21) and in its active counterpart, the latter is called an indirect object in (21),

too, although the sentence itself contains only one object. The roles of mij in (20) and (21) are furthermore (again: apparently) felt to be sufficiently similar to justify calling mij an indirect object in (20) too. Thus, this analysis appears not to be based on arguments that are 'internal' to the relevant sentences themselves, but rather on the feeling that certain (paradigmatic) similarities to other sentences should be expressed in the (syntagmatic) analysis of such cases. But the discussion above seems to provide a basis for other arguments that still point in the direction of an 'indirect object' status of the object in a case like (20).

Firstly, the general characterization we have proposed also applies both to the object in (15) and to the one in (16): it concerns entities which are affected by the process denoted by the predicate, but not controlled by it completely. Secondly, the specific syntactic phenomena we noted above also show up in these cases; an adjectival predicative adjunct can hardly be associated with such an object, as (22) illustrates: ¹⁴

- (22) ??Het was mij nuchter wel duidelijk
It was me sober PART clear

There seems to be sufficient reason, then, to consider such NPs correctly classified as indirect objects, as is done in traditional grammars. Nevertheless, there remains a problem, because as we have been saying, a so-called direct object may, unlike an indirect one, indicate a completely controlled participant, but it need not; so at least the possibility still exists that these cases are 'direct objects' with a contextually determined interpretation of occupying a peripheral position in the evoked state of affairs. Therefore, we will come back to examples like these later on. But in any case, they do not provide evidence against the proposed characterization, for then it would have to be argued that they are indirect objects while the characterization does not apply to them.

6.1.3 On the order of participant-indicating NPs

So far, we have been looking at two types of correlations between the relative order and the interpretation of sentence elements: on the one hand between the order and the interpretation of different adverbials (i.e.

non-verbal and non-participant indicating elements) relative to each other, and on the other hand, between the order and the interpretation of adverbials and NPs (i.e. non-participant and participant-indicating elements) relative to each other. We have not yet considered possible correlations between order and interpretation within the class of participant-indicating elements, i.e. possible correlations between word order and the interpretation of the 'role' performed by the referent of an NP. This is what we will do now, in order to argue that this correlation is also one of effect rather than meaning, and that it may be understood in terms of the abstract function of word order established in chapter 5.

As far as I know, most discussions of the relation between the order of participants and their interpretation (at least in the recent linguistic literature) concentrate on questions of the distribution of 'given' and 'new' information, and do not address the possibility of providing a functional explanation of the distribution of roles within the sentence. But an elaborated proposal of the latter kind is put forward in García (1979). We will first briefly discuss this proposal, and then amend it in such a way that it is in line with what has been proposed in chapter 5 of this study.

The starting point of García's argument is that "it is at the beginning of communications that the addressee knows least, that is, is most ignorant" (García (1979: 33)). Naturally, speakers will take this into account when planning their contribution to the communication:

That the addressee is [...] maximally ignorant at the BEGINNING of utterances has an extremely important consequence: It is here (if anywhere) that the speaker may expect him to be attentive [...]. The speaker will, consequently, do well if he places at the beginning of his communications those items that (for any of a variety of reasons) he may wish to bring to the hearer's attention. (García (1979: 33)).

Although this quotation is itself only related to the first position of an utterance, the reasoning is in fact intended to apply more generally, "since the "very beginning" is the limiting case of "earlier.", so that it is assumed "that whatever is true of absolute initial position will hold (to a lesser degree) of NON-absolute initial position (i.e., of simple precedence)" (García (1979: 33)). It is claimed, then, that the cited argument can make understandable why certain NPs precede others. ¹⁵

Basically, the argument seems sound as it stands, but there is one rather important aspect of it which I find hard to believe, and that is the type of 'psychology' it presupposes. The goal is to explain word order phenomena within clauses, and this specific argument forces us to a view of the hearer according to which his attention is being strained anew with every clause. I think that this simply goes too far to be believable. And it is significant that the discussion is initially in terms of the "beginning of communications" (cf. the above quotation), but very soon afterwards in terms of the "beginning of communicative units", i.e. roughly "sentences" (cf. García (1979: 34)), without an explanation of the validity of this equation, although it is not self-evident: the term "communication" is easily understood in a broader sense than "communicative unit", in that a communication may comprise several communicative units.

The main point in this objection is that the argument is formulated in terms of "ignorance" and "straining of attention" in an absolute sense. In fact, it is only necessary to relativize the argument with respect to the content of a sentence in order to get a more acceptable picture. We might argue as follows: the hearer does not know what message the speaker is going to convey in an utterance, but this 'ignorance' diminishes gradually every time a new sentence element is added. This may be seen as an immediate consequence of the linear arrangements of these elements, and does not require hypotheses about hearers being 'attentive' or not. So with respect to every evoked state of affairs, the hearer can only rely on information that has already been provided in order to form some idea about the role and the relevance of the next sentence element: not only about the question how it 'fits' into the speech situation, but also about how the idea it evokes relates to other elements in the evoked state of affairs. With respect to participants, this amounts to saying that one that comes 'earlier' must be thought of as perceivable and relevant independently of the evoked state of affairs in more respects than one that comes 'later'.¹⁶ Specifically, the perceivability and the relevance of the first participant mentioned is never dependent on a participant that is not yet mentioned, while the reverse may very well be the case. Thus, this 'relativization' of García's idea of "ignorance" with respect to the state of affairs evoked in a sentence brings us to a formulation of an abstract relation between word order and interpretation which is very similar to the conclusion about this relation in chapter 5. Now the question is: is it

possible to consider the observed relations between the positions of NPs and interpretation of roles as special cases of this general function of word order? In other words: is it possible to re-interpret the interpretive aspect of the roles of participants in an evoked state of affairs at least partly in terms of (differences of) independence with respect to the evoked state of affairs, in such a way that the observed regularities can be made understandable?

Let us first consider sentences with three NPs, traditionally analyzed as subject, indirect object and direct object. Typically, two participants in such a three-participant state of affairs are diametrically opposed to each other, as Agent and Patient; the former is understood as controlling the occurrence of the evoked state of affairs, the latter as subjected to it, without a will of its own (to use Den Hertog's term). Thus, the participant indicated by a 'typical' subject in such a sentence is maximally independent with respect to the evoked state of affairs (the latter is rather presented as depending on the Agent), while the participant indicated by an (also 'typical') object is minimally independent with respect to the evoked state of affairs and compared to the Agent. Consider two examples from previous sections:

- (1)a Toen heeft Jan het kind zijn laatste boterham gegeven
 Then has Jan the child his last sandwich given
 "Then Jan gave the child his last sandwich"
- (7) Eén keer in de week geef ik de planten kunstmest
 One time in the week give I the plants fertilizer
 "Once a week I feed the plants with fertilizer"

The participants indicated by the 'subjects' of these sentences, Jan and ik respectively, are understood as producing the states of affairs evoked in the respective sentences rather than as being influenced by them; and their perceivability and relevance is not limited to their role in these states of affairs. On the other hand, the participants indicated by the 'direct objects' (zijn laatste boterham ("his last sandwich") and kunstmest ("fertilizer"), respectively) are presented as 'included' in the states of affairs: they are completely controlled by them, and their perceivability and relevance in the discourse in which the sentences figure may well be

limited to their role in the presently evoked states of affairs.

Furthermore, we have argued in 6.1.2 that elements called indirect objects indicate entities that are objects in a process, but not completely controlled by it; i.e. they are presented as being influenced by the process, but only to a limited extent. As we have also seen in 6.1.2, this has the consequence that an indirect object participant is to some extent independent of the evoked state of affairs. It will be clear then that when the evoked state of affairs involves a process of transfer, with three NPs explicitly indicating participants, they are ordered in terms of relative independence: first the Agent, then the indirect object, finally the Patient, which will also be the order in which they occur in a sentence. Thus, the order that is established as the general rule (from at least 17th century Dutch on - judging from Moonen (1706)) - can be considered to be the 'natural' order, given the appropriate characterizations of the roles of the participants involved, and the general function of word order.

Notice that we have in fact assigned 'independence' to the NPs in (1)a and (7) in two different respects: one in terms of the direction of influence within the evoked state of affairs, and one in terms of relevance and perceivability with respect to this state of affairs. Word order relates specifically to the latter aspect, according to our earlier proposals. Now, the two respects are correlated, but not identical. Thus, if a participant is a 'source' of influence within the evoked state of affairs, the occurrence of the state of affairs is somehow dependent on the participant, so the latter is naturally interpreted as existing and perceivable independently of the state of affairs. And a participant at which influence is directed within the evoked state of affairs will naturally be interpreted as at least in some respects determined by that state of affairs, so that it is implied that its perception (at least in certain respects that are considered relevant) may be dependent on the occurrence of the state of affairs. The latter phenomenon is especially clear in cases of so-called internal objects, for example:

- (23) Ik heb hem de schrik van zijn leven bezorgd
 I have him the shock of his life procured
 "I have given him the shock of his life"

Sentence (23) is normally interpreted in such a way that the idea evoked by "the shock of his life" is not perceivable independently of the occurrence of precisely the state of affairs evoked in this sentence. But also a case like (7) is normally interpreted in such a way that the perception of the fertilizer goes hand in hand with the idea that its function is to be given to the plants, as we already remarked in 6.1.2. Thus, there is a correlation between the questions, firstly, to what degree a participant determines the occurrence of a state of affairs or is determined by it, and secondly, in what respects a participant is perceivable independently of a state of affairs. Word order is, as we have proposed, related directly to the latter interpretive aspect, and therefore indirectly to the former (which is the aspect of the roles of NPs within a sentence). But as remarked, the correlation is not identity, and this provides a basis for an understanding of the 'exceptions' noted in 6.1.1. Consider examples (2) and (3) again:

- (2) Je moet dat je kinderen eens vertellen
 You must that your children just tell
 "You should just tell that to your children"
- (3) [Ik denk,] dat ik dit boek niemand zou willen aanbevelen
 [I think] that I this book nobody would want recommend
 "[I think] I would not recommend this book to anyone"

In sentence (2), the demonstrative pronoun dat refers to the content of the 'story' that should be told, according to the speaker; the use of the demonstrative pronoun indicates that the story is completely known 'outside' the situation hinted at by the present sentence. The referent of dat is perceivable independently of its being told to the hearer's children; the sentence rather suggests that it is not at all obvious that the story should be told to the children. For example, (2) might be particularly suited if the message to be conveyed is that the telling of the story could make rather a big impression on the children involved. So, although the participant at whom the telling of the story is directed (the 'indirect object') is generally independent of the evoked state of affairs in at least some respects, it is possible to present the content of the telling ('direct object') as completely independent of the telling in specific cases. Thus, the function of the order of the elements in (2) is

in fact the same as in cases where the 'direct object' follows the 'indirect object'. A similar comment applies to (3): the demonstrative dit clearly characterizes the book involved as relevant independently of the question of recommendation raised in the present utterance, while the relevance of the idea of "no one" is limited to the question of recommendation, which is not at all strange, since this word can hardly be used for evoking the idea of an independently perceivable participant (cf. the discussion of indefinite pronouns as subjects at the end of 4.3, and also 6.1.5).

So on the one hand, participants indicated by NPs are differentiated in terms of roles with respect to the process evoked in the sentence, and on the other hand the same participants may be differentiated in terms of relative independence with respect to the evoked state of affairs. The two types of differentiation correlate, but they do not coincide. That is, when 'nothing special' is going on, the impression may arise of a strong correlation between roles (say, degree of agentivity) and relative independence, hence word order, but the correlation may be weaker when NPs are differentiated in terms of independence on other grounds than their role in the evoked state of affairs (for whatever reasons). In any case, this reaffirms the conclusion that word order cannot be viewed as a sign whose meaning actually specifies a certain type of role.

The above remarks on the relation between the order of NPs and the interpretation of roles applied to sentences with three participants. In such cases, the 'subject' and one of the 'objects' (the 'direct object') are diametrically opposed in terms of the content of their roles in the evoked state of affairs: the former has complete control over the latter. In sentences with two participants, the opposition between them may be less 'extreme' (we will return to the issue of this difference in 6.1.4). For example, consider (20) again, in which the object is traditionally analyzed as an 'indirect' one (cf. 6.1.2):

- (20) Nu is het mij duidelijk
 Now is it me clear
 "Now it is clear to me"

The participant indicated by the object, in this case mij ("me"), is

presented as in some way being determined by the evoked state of affairs, as undergoing influence; the presentation is quite different, for example, in a sentence of the type "Now I understand it", which presents the speaker as grasping "it", rather than "it" as 'forcing' itself on the speaker. On the other hand, the type of the evoked state of affairs is that of an 'experience' or 'mental condition'. And the content of an experience or mental condition may conceivably be presented as not independent of the occurrence of the experience (condition), while at the same time an animate being is presented as influenced by this experience (condition).

So although the roles of the participants within the evoked state of affairs are clearly distinct, with the content of the experience influencing the 'experiencer', the nature of the evoked state of affairs is such that the former is not 'naturally' the participant that is perceivable completely independently of the evoked state of affairs, so not 'naturally' the one that is to be mentioned first. Consider example (5) from 6.1.1 (with the last accent indicated):

- (5) Nu is mij alles duidelijk
 Now is me everything clear
 "Now everything is clear to me"

This sentence differs from (20) in that the content of the experience is indicated by an indefinite pronoun, rather than by a personal pronoun, which always evokes an idea as independently perceivable. But sentence (5) may be interpreted in such a way that the idea evoked by alles ("everything") is introduced into the discourse with the present utterance, hence not independently perceivable at the speech moment. Now consider the reverse order:

- (5)a Nu is alles mij duidelijk
 Now is everything me clear
 "Now I am clear about everything"

In this case, alles ("everything") evokes the idea of "the whole set of issues we have been talking about", and these are said to be clear to me now; i.e. the set of problems that should be clarified is given, and "now" the clarification is said to be there. But (5) may (although it need not)

evoke the idea of "everything" as including all kinds of issues that were not yet under discussion and that (suddenly) became clear to me; it may suggest that it becomes clear to me what the problems were "now" that I see the solution. That is, the idea evoked by alles in (5)a is necessarily perceivable independently of the presently evoked state of affairs, but in (5) this is not necessarily the case.

In view of earlier discussions, we may expect two features of NPs to be especially relevant with respect to the order of elements in sentences evoking states of affairs of this kind: firstly, + definite, since a definite NP is explicitly presented as relevant beyond the presently evoked state of affairs, and an indefinite NP is not; secondly, + pronominal, since the function of personal pronouns is to correlate participants in the evoked state of affairs with participants in other states of affairs (the speech situation in particular or just some other state of affairs), so that participants indicated by personal pronouns are presented as perceivable independently of the evoked state of affairs.

Consider (24):

(24)a Gisteren is de glazenwasser een ongeluk overkomen
 Yesterday is the window-cleaner an accident befallen
 "Yesterday the window-cleaner met with an accident"

b ??Gisteren is een ongeluk de glazenwasser overkomen
 Yesterday is an accident the window-cleaner befallen

Although "an accident" clearly influences the window-cleaner, the latter, -- unlike the former, human and definite -- is perceivable independently of the occurrence of the accident, but the idea of an instance of "accident" need not be perceivable independently of the presently evoked state of affairs, so the order of elements in (24)a is felt to be 'normal'. The 'problem' with (24)b is that the order of the NPs requires us to interpret the idea of "an accident" as perceivable independently of the idea of its happening to the window-cleaner. So it requires rather special circumstances, like a discussion with accidents as topic, and the speaker introducing the news that some otherwise known entity 'also had one'. Again, the function of word order is the same in both cases, and it does

not relate directly to differentiation of roles.

Note that there is less difference between the two cases of (26), in which both participants are definite:

- (26)a Gisteren is de glazenwasser dezelfde ellende overkomen
 Yesterday is the window-cleaner the-same misery befallen
 "Yesterday, the same misery befell the window-cleaner"
- b Gisteren is dezelfde ellende de glazenwasser overkomen
 Yesterday is the same misery the window-cleaner befallen

The fact that the window-cleaner is the only human participant mentioned makes it possible to establish the same, 'natural' distribution of roles in both cases, independently of the order of the NPs. But since both participants are definite, neither of the two orderings has the special effect that something is 'unexpectedly' presented as independently perceivable, although, of course, the comment may be different in both cases (for example, "the same misery befell" in (26)a, and "befell the window-cleaner" in b).

As far as personal pronouns are concerned, consider the examples in (25):

- (25)a Misschien zal zo'n nieuwe machine haar beter bevallen
 Perhaps will such a new machine her better suit
 "Perhaps such a new machine will suit her better"
- b Misschien zal haar zo'n nieuwe machine beter bevallen
 Perhaps will her such a new machine better suit

Pronouns are different from 'full' NPs, in that there are special forms indicating that the idea evoked by the pronoun does not correspond to the source of influence within the evoked state of affairs, the so-called object forms of pronouns. This feature makes it possible to distribute the relevant roles over the participants mentioned in the clause, independently of order, in a manner similar to the way the "human" nature of certain participants makes such a distribution possible independently of order in cases like (24). In fact, the possibility of positioning an indirect object

before a subject seems to be most general with pronominal indirect objects (cf., for example, ANS (1984: 986/7)). In view of the nature of personal pronouns (according to our earlier proposals) this does not come as a surprise.

Now consider some sentences which evoke a state of affairs involving an experience or 'mental condition' of some kind, and in which the roles cannot be distributed over the two participants mentioned on the basis of their being differentiated in terms of definiteness, 'human' vs. 'non-human', or 'pronominal' vs. 'non-pronominal':

- (26) Helaas stond meneer Jansen Dora niet aan
 Unfortunately pleased mister Jansen Dora not PART
 "Unfortunately mister Jansen did not please Dora"
- (27) Kennelijk bevallen de docenten de studenten tegenwoordig
 minder
 Apparently please the teachers the students nowadays less
 "Apparently the teachers please the students nowadays less"

In (26), both participants are indicated by means of proper nouns, and are thus not differentiated as human vs. non-human. And in (27), both NPs also indicate human participants, and both are definite. These sentences are unambiguous in terms of roles, with the first NP indicating the source of the influence, i.e. the 'subject', and the second the influenced participant, i.e. the ('indirect') 'object'. In other words, if only word order itself can provide a basis for an inference about the distribution of roles, the first of two NPs in such cases is consistently taken to indicate the 'subject' and the second to indicate the 'object'. This could be made comprehensible in the following way. The order of the two NPs implies that at least the first of them is perceivable independently of the evoked state of affairs, in view of the general function of word order. Now the presence of two NPs in both cases implies (also in view of the nature of the processes denoted by the verbs) that they are at least to some degree opposed in terms of the direction of influence: one is the source of the influence, which is then directed at the other. If there are no other indications about the question of their being independently perceivable¹⁷ the only relevant factor at the speech moment is, apparently, the difference in roles. So a difference in roles will correspond directly to a

difference in independence with respect to the evoked state of affairs: the participant that is mentioned first is therefore also interpreted as the one that is the source of influence in the evoked state of affairs.

So even the lack of ambiguity in terms of roles in cases like (26) and (27) does not provide evidence that the order of NPs must (sometimes) be taken as an immediate indication of a specific type of role, in other words, as a sign for a role; for it can be explained in terms of the function of word order we have been proposing, and the correlation between direction of influence within a state of affairs and independent perceivability. Consequently, the function of word order can be considered a constant factor in the interpretation of sentences, but the nature of this function must be conceived as more abstract than that of signifying the distribution of roles over NPs in the sentence. Then the question is unavoidable what the status of interpretive aspects described in terms of notions like "indirect object" actually is, since they cannot be considered the semantic side of a word order signal.

6.1.4 On the status of 'subject' and 'object' in linguistic analysis

The discussion so far gives rise to some principled questions about the precise status of the traditional 'grammatical functions', i.e., of the notions 'subject' and 'object'. The picture that emerges from the preceding discussion is that these notions refer to interpretive aspects of sentences for which there is no corresponding constant formal aspect in terms of the order of NPs; and this does not only hold for the notion 'indirect object', but also for the notions 'direct object' and 'subject', since the ordering 'restrictions' always involved the relative order of these elements. Therefore these questions must again be posed: "Do these notions indicate meanings or effects?"; "What is actually the substance of these notions both in terms of form and in terms of content?". It will be clear that the order of NPs, in any case, does not constitute the formal category meaning "participant of a certain type", and if there are no other constant formal aspects with such a meaning, the conclusion will have to be that the traditional grammatical functions, just like the traditional distinctions between different types of adverbials, do not refer to the meaning of

grammatical categories, but, apparently, to more or less systematic effects of the use of meaningful elements (both grammatical and lexical). In fact, I believe that the latter position largely provides the correct perspective, so let us see how the traditional notions are to be understood according to this view.

As far as the notion 'subject' is concerned, there is, besides word order, another formal aspect that is very generally associated with it: so-called Agreement, i.e. the fact that the ending of a finite verb provides information about the number and the 'grammatical person' of one participant in the evoked state of affairs in particular.¹⁸

The basic, most general function of finite verb forms is to provide the marking that is generally indicated as "Tense". The actual semantic content of this notion and of the distinction between the 'present' and 'past' forms is known to be a difficult subject for semantic analysis and a source of much controversy. However, I only want to draw attention to the fact that the distinction is made very generally, i.e. there is hardly any 'syncretism' in the forms that indicate 'present' or 'past' tenses. But in the case of Agreement, the distinctions are not made that generally. In the spoken general language, the difference between 'singular' and 'plural' often cannot be made in the past tenses of the verbs that have a regular past tense form: the final -n in written forms like vertelden ("told", plural) and stopten ("stopped", plural) is in general not pronounced, especially not in informal speech, so that the forms are not distinct from the singular forms that are spelled without -n (vertelde, stopte). However, the distinction is made, also in spoken language, in the past tenses of verbs with irregular past tense forms, and the most frequently used verbs are generally in this class, so there is no reason to suggest that the category is disappearing in the past tenses. Nevertheless, the fact that the distinction is not marked completely generally indicates that it is not always very important, at least not as important as the distinction between the 'past' and 'present' tenses itself.

This holds even more strongly for the marking of 'person'. A distinction of this type is actually only made in the singular and in present tenses. Formally, it consists of the presence or absence of a -t as a suffix to the stem of the verb. The 'distribution' of this marking over verbal forms is

rather complicated. With main verbs, the suffix goes together with third person subjects and with the polite second person pronoun U, but it never goes with first person, and in the case of second person pronouns which are not marked for politeness, the relative order of the pronoun and the finite verb is relevant: with the pronoun following the verb, the suffix is absent, otherwise it is present. So we have the following paradigm:

- (28)a ik denk - denk ik (first person)
I think - think I
- b j1j/je denkt_t - denk j1j/je (not explicitly polite second person)
you think - think you
- c U denkt_t - denkt_t U (polite second person)
you think - think you
- d z1j/h1j/NP denkt_t - denkt_t z1j/h1j/NP (third person)
she/he/NP thinks - thinks she/he/NP
- e w1j/jullie/z1j/NP[pl] denken - denken w1j/jullie/z1j/NP[pl]
we/you/they/NP[pl] think - think we/you/they/NP[pl]

With many so-called auxiliary verbs, the distribution of the suffix is different in that the suffix is also absent with the third person; the paradigm is the same as (28), except that in case d the suffix is absent (for example: z1j wil/kan - wil/kan z1j "she wants/can"). Furthermore, the marking may be totally absent (with the same auxiliary verbs) in informal speech: all 'persons' of the singular may have the form of the stem of the verb, also with a second person pronoun preceding the verb (je wil/kan, "you want/can"). In view of this distribution, it is clear, I think, that the person-marking function of the finite verb is relatively marginal,¹⁹ which might be a factor in the 'randomness' of the distribution in certain respects. But in any case, the presence of the suffix always implies that the speaker is not the referent of the 'subject' of the sentence, i.e. that the speaker is not involved as a participant with (in some respect that is yet to be determined) a central role in the evoked state of affairs.²⁰ In the case of main verbs, there is also a reverse relation: if the form of the finite verb is identical to the stem (both the number and person-

marking are absent), then one of the participants in the speech situation is 'centrally' involved in the evoked state of affairs. Now two questions arise: "What is the exact relation between form and content in the case of person and number Agreement?", and "Is there really some identifiable constant content in what we vaguely called 'central' involvement of some participant?" (which could then be said to be the content of the notion 'subject'). In other words, is there any constant content to the notion 'subject' beyond the signals "plural" and "speaker is not participant" that may be provided by the ending of finite verb forms and which is required in order to understand when an NP and such signals relate to the same referent?

Clearly, no special notion of 'subject' is needed in the case of sentences containing only one NP that indicates a participant: the information provided by the verb ending will be taken to relate to the only participant mentioned without any 'intermediate' notion of subject being necessary. We will have to look specifically at sentences that evoke the idea of a state of affairs with two or more participants in order to answer the questions formulated above: do we need a special notion of 'subject' in order to describe the fact that information provided by the verb ending is not related to one of these participants in a random manner?

If the ending of the finite verb provides information about number or person, in a sentence evoking the idea of a state of affairs with more than one participant, one of them must be chosen as the participant that the information of the verb ending should be related to. Now in Dutch, this choice always falls on the participant from which influence is directed at the other participant(s) (both other participants in three-participant sentences and the only other one in sentences mentioning two participants). This also holds in passive sentences; consider (29), for example:

- (29) Vandaag worden Piet de eerste kandidaten voorgesteld
 Today get [pl] Piet the first candidates presented
 "Today the first candidates will be presented to Piet"

Both of the participants mentioned in (29) are presented as in some respects affected by the evoked state of affairs, but in as far as Piet undergoes influence in the evoked state of affairs, this is at least partly

because of the first candidates, while the reverse does not hold: in as far as the first candidates undergo influence in the evoked state of affairs, the only direct source of that influence is the unmentioned agent, not Piet. ²¹

Now whether this relation must be considered a conventional one, specific to Dutch, or a consequence of other, more fundamental principles, it can be formulated directly in terms of the signals provided by the verb ending (if present) and in terms of the direction of influence in the evoked state of affairs (if present), so without an intermediate notion with an independent content that should be identified with 'subject'. In principle, this notion could be identified as 'an NP indicating the same participant as the one to which the information in the verb ending is related', which in effect reduces the notion of 'subject' to the actual content of 'agreement'. In view of the fact that the distinctions involved in 'agreement' are not generally present, this would mean that the 'subject' is actually not distinguished in many sentences. Furthermore, there does not seem to be a constant, identifiable function of the NP called 'subject': in evoked states of affairs with one participant, it is this single participant (which might trivially be called the "main" participant), and its role within the evoked state of affairs as well as its relation to the rest of the discourse may be of virtually any kind (for example, it may be an 'agent' or a 'patient', it may be independently perceivable or not, and it may refer to given or to new information). But in evoked states of affairs with more than one participant, it relates (in Dutch) to the participant that is to be considered a 'source' (in some respect) of influence on the other(s), and I see little perspective in a search for a common denominator for this usage and the possible functions of the single participant in one-participant sentences.

So although the notion of 'subject' is perhaps not completely empty as far as the function of the NPs involved is concerned, the functional content does not appear to be constant throughout all occurrences of so-called subjects, ²² so that it cannot be viewed as the semantic side of a sign in the sense of 1.1 and 2.2. Instead, it is useful to consider the number and person indications of the verb ending (if present) as such signs, contributing directly to the interpretation of the sentence rather than as marking some other element in the sentence and thus at most, indirectly

related to the interpretation of the entire sentence.

In view of this it would also be consistent to describe the role of a verb ending indicating "plural" as the signal that more than one manifestation of the process or situation named by the verb (or verbal complex) is distinguished,²³ rather than as relating directly to the grammatically indicated number of a participant. This would also be in accordance with our remarks on the relation between number 'agreement' and 'subjects' that have an indefinite article as well as a plural suffix (cf. the discussion of the examples (51) and (52) in 4.2.2). It would, furthermore, make sense out of the 'exception' that the verb sometimes agrees with the noun in a nominal predicate, rather than with the subject of the sentence, if the latter is a 'neuter' pronoun. The ANS (1984: 835) gives the following example:

- (30) [Gisteren zijn Johan en Pieter hier geweest.] Het zijn aardige jongens
 [Yesterday are Johan and Pieter here been.] It are nice boys
 "[Yesterday, Johan and Pieter were here.] They are nice boys"

According to the above proposal, the plural form of the finite verb signals that more than one manifestation of "being something" is perceived, which is indeed what the sentence conveys, despite the fact that the 'subject' het ("it") is 'singular'.²⁴

What we have, then, is that a sentence may contain one or more bare NPs indicating participants, and that each of these NPs generally does not itself provide an immediate indication of its role within the evoked state of affairs. The question then arises, of course, how such roles are nevertheless differentiated. Starting with sentences evoking states of affairs as involving two participants, let us adopt a proposal from Pauw (1984) concerning the nature of 'transitivity' which comes down to the following:²⁵ the mentioning of two participants in itself implies that they are opposed in terms of 'direction of influence': one is to be thought of as the 'source' of the occurrence of the evoked state of affairs (in some respect), the other as the one at whom influence is 'directed' in the evoked state of affairs. As noted above, the participant that is the 'source' of the occurrence of the evoked state of affairs is identical to the 'subject' of such two participant sentences, in traditional terms. Now

the verb ending will often not provide sufficient indications to distinguish one role from the other. However, we have in fact already seen in the previous section that a 'natural' distribution of roles can nevertheless be established on the basis of knowledge of the type of process or state indicated by the verb and of the type of entities involved ('animate' vs. 'non-animate', for example), and in some cases on the basis of the order of NPs, given the normal correlation between the idea of the participant that is the 'source' of the process and the idea of the participant that is perceivable independently of the occurrence of the process.

A special role is played by non-neuter personal pronouns: these exhibit a differentiation in 'subject' and 'object' forms, unlike any other word class (including other types of pronouns) in modern Dutch. The oblique forms indicate that the idea evoked by the pronoun is not to be taken as corresponding to a 'source' of influence in an evoked state of affairs. Given that the general function of pronouns entails that the ideas they evoke are presented as independently perceivable, it is arguable that there is a communicatively important function for this distinction: if in a sentence evoking a state of affairs with two participants, one of them is explicitly presented as an independently perceivable animate being, it will, without an explicit indication to the contrary, be taken as evoking the idea of the participant with the 'source'-role, given the correlation between this role and independent perceivability that we argued for before. In other words, if it were not for the oblique forms of non-neuter personal pronouns, it would be difficult, if not impossible, to present an animate participant both as an 'object' in the presently evoked state of affairs and as participating in other states of affairs (for example, the speech situation). Hence, a considerable communicative interest is involved in the distinction between different forms of non-neuter personal pronouns, which may be seen as the reason why the distinction is expressed so strongly in the first place (the oblique and non-oblique forms actually involve different stems, not different affixes to the same stem), and secondly, why it has so far 'survived' the 'decline' of the general system of case marking. In any case, an important consequence of the fact that this distinction is available in the case of pronouns is that it provides a basis - often a sufficient one, as we have seen - for distributing roles over bare NPs if they have to be distinguished in terms of roles, i.e. if

more than one is present in the same sentence.

The above discussion calls into question whether the difference that is traditionally made between two types of objects in sentences with only two participants mentioned is actually justified. The discussion in fact suggests that there is no sharp, grammatically determined distinction between the function of hem in (31) and the function of hem in (32), for both sentences evoke the idea of a state of affairs with two participants, with the idea evoked by "your novel" taken as the 'source' of the occurrence of the state of affairs and the idea evoked by "him" as undergoing influence (in some respect) in the state of affairs. But the first is traditionally called "direct object" and the second "indirect object".

(31) Uw roman heeft hem gekwetst
Your novel has him offended
"Your novel offended him"

(32) Uw roman is hem bevalen
Your novel is him pleased
"Your novel pleased him"

If it is in fact correct to consider these sentences as manifestations of the same phenomenon, we should expect that such 'direct' objects may also occur to the left of 'subjects', under conditions similar to those established in relation with 'indirect' objects; this is indeed the case, as appears from the pair in (33) for example: ²⁶

(33)a Gisteren heeft ons een ramp getroffen
Yesterday has us a disaster hit
"Yesterday a disaster hit us"

b Gisteren is ons een ramp overkomen
Yesterday is us a disaster befallen
"Yesterday we met with a disaster"

Another example is the following (to be found in W.F. Hermans' novella Het behouden huis (1968 edition, p.34)).

- (34) ...alsof mij dat kon helpen hem helemaal te vergeten
 ...as-if me that could help him completely to forget
 "...as if that could help me to forget him completely"

The function of ons ("us") in both (33)a and b is sufficiently similar to allow for the 'object' to precede the 'subject' in both cases, and yet the first is traditionally classified as a 'direct' object and the second as an 'indirect' one. Similarly, the idea evoked by mij ("me") in (34) is sufficiently independent with respect to the evoked state of affairs (note that it refers to the speaker, who is also the main character in the story) that the 'object' may precede the (inanimate) 'subject'; but a traditional grammar would classify it as a 'direct object'.

Some particularly interesting data from the point of view of our hypothesis about the general function of word order can be extracted from Nieuwborg (1968). He notes a strong tendency in his corpus for subjects denoting "abstract concepts from an emotional sphere" to follow pronominal direct objects (Nieuwborg (1968: 116-118, 217)). The examples are of the following type:

- (35)a Toen bekwrop haar de angst voor armoede
 Then crept-over her the fear for poverty
 "Then she was seized with the fear of poverty"
- b Toen bekwrop de angst voor armoede haar
 Then crept-over the fear for poverty her
 "Then the fear of poverty crept over her"
- (36)a Plotseling overweldigde hem een fantastisch gevoel
 Suddenly overwhelmed him a terrific feeling
 "Suddenly he was overwhelmed by a terrific feeling"
- b Plotseling overweldigde een fantastisch gevoel hem
 Suddenly overwhelmed a terrific feeling him
 "Suddenly a terrific feeling overwhelmed him"

Nieuwborg calls examples of the type (35)b "less usual" (1968: 114), and those of the type (36)b (with indefinite subject) generally even "excluded"

(218). The interpretive 'problem' with the b-cases is that the order of the NPs requires an interpretation of the influencing factors as perceivable independently of their occurring in the presently evoked state of affairs. For example, the "fear" in (35)b is to be taken as evoking the idea of an entity with an existence independent of its "creeping over her" described in the present utterance, hence the impression of 'personification', of something literally creeping over "her". A similar description applies to (36)b, where the problem might be increased by the indefiniteness of the 'subject'. Thus, these cases can be immediately explained in terms of the proposed general function of word order; in fact, they are completely parallel to the examples of so-called indirect objects preceding subjects in sentences evoking the idea of an experience ('subject') influencing the experiencer ('indirect object'), as discussed in 6.1.3 (cf. also Nieuwborg (1968: 128)). So these examples illustrate once again that the abstract function of word order is indeed a constant factor in the interpretation of sentences and that it is not directly related to the distribution of roles; at the same time, they bring us back to the question: "Why distinguish between 'direct' and 'indirect' objects in cases like these?".

We are now in a position, I think, to identify the fallacy involved in the traditional view of these cases: it is the idea that a paraphrase truly reveals something about the abstract grammatical structure of the paraphrased sentence. For the reason that ons ("us") in (33)a, mij ("me") in (34), and haar ("her") in (35) are called "direct objects" is that these sentence have passive 'counterparts', while (33)b and (25)b (repeated below, cf. 6.1.3) do not:

(33)a' Gisteren werden wij door een ramp getroffen
 Yesterday got we by a disaster hit
 "Yesterday we were hit by a disaster"

b' *Gisteren werden wij door een ramp overkomen
 Yesterday got we by a disaster overcome

(34)' ... alsof ik daardoor geholpen kon worden hem helemaal te vergeten
 ...as if I by-that helped could get him completely to forget
 "...as if by that I could be helped to forget him completely"

- (25)b Misschien zal haar zo'n nieuwe machine beter bevalen
 Perhaps will her such a new machine better suit
 "Perhaps such a new machine will suit her better"
- b' * Misschien zal zij door zo'n nieuwe machine beter bevalen
 worden
 Perhaps will she by such a new machine better suited get

The fallacy is the idea that, since the combination of passive auxiliary and participle is possible when the participle stems from treffen ("to hit") or helpen ("to help"), and not possible when the participle stems from overkomen ("to befall") or bevalen ("to please", "to suit"), there is also a difference in the status of NPs in sentences containing other than participle forms of these verbs. I have deliberately formulated the idea in a very strict way, so that its actual descriptive content should be clear, as well as the fact that it does not have any initial plausibility. Rather, it leads to a distinction in sentences between direct and indirect objects for which there is no evidence within these sentences themselves, and which rather obscures the fundamental unity of the construction of two NPs indicating two different participants in one evoked state of affairs. These are, as stated before, opposed as 'source' and 'object', but the 'amount' of the opposition is not completely determined by the mere fact of the opposition, and thus subject to differentiation on the basis of the content of the elements filling the construction of two participants in one evoked state of affairs. As a final example, consider the 'classical' problem of the status of the NP de werknemers ("the employees") in (37): 'direct' or 'indirect' object?

- (37) Dit bedrijf betaalt de werknemers eens per week
 This concern pays the employees once per week
 "This concern pays the employees once a week"

Both answers can be argued for; the first because of the possibility of the 'paraphrase' in (38), for example:

- (38) De werknemers worden eens per week betaald
 The employees get once per week payed
 "The employees are payed once a week"

or because of the fact that putting the object in (37) in a prepositional phrase does not result in a very good sentence, which at least 'does not seem to mean the same thing':

- (37)' ²Dit bedrijf betaalt aan de werknemers eens per week
This concern pays to the employees once per week

The second answer may be argued for on the basis of the fact that the role of the referent of the NP in (37) is the same as the one in (39), say 'recipient', or something like that:

- (39) Dit bedrijf betaalt de werknemers een behoorlijk salaris
This concern pays the employees a decent salary
"This concern pays a decent salary to the employees"

All arguments must be considered empty, however, if there is in fact no general distinction between grammatical categories of direct and indirect object between which one would always have to choose, so to speak. Note, furthermore, that the arguments, and not only the one using the passive 'paraphrase', try to describe one construction, involving two bare NPs and a simple verb, in terms of another construction, involving passive morphology, a prepositional phrase, or three bare NPs.

Instead, an appeal to the identifiable content within the sentence itself is sufficient to explain the interpretation of (37) and (40): specifically, the information contained in the ending of the finite verb, the number indication in one of the NPs, the lexical content of the NPs, and general 'real world' knowledge of the type of situations to be characterized as a process of paying, involving two participants. No necessity of characterizing the second participant as either 'direct' or 'indirect' object arises.

- (40) Dit bedrijf betaalt al jaren een heel behoorlijk loon
This concern pays already years a very decent pay
"This concern has been paying very decent wages for years"

The latter is different, of course, when there are actually three bare NPs indicating different participants in the sentence, as in (39). As they must

be assigned different roles with respect to the evoked state of affairs, it is necessary to have two of these roles completely opposed to each other, while there is some room in two participant sentences for the 'subject' to be interpreted as not necessarily controlling the occurrence of the state of affairs completely, or for the object as not being affected completely. As an illustration of the first possibility, consider the difference in the "range" of possible interpretations of the role of "Marie" in the following two sentences:

- (41) Marie gaf altijd veel melk
 Marie gave always much milk
 "Marie always gave much milk"
- (42) Marie gaf ons altijd veel melk
 Marie gave us always much milk
 "Marie always gave us much milk"

The first of these examples allows for an interpretation in which the referent of the subject does not perform its role very consciously; for example, it may be a comment on the productivity of a cow called "Marie". But such an interpretation is highly implausible for (42). Thus, the presence of an 'extra' participant forces the other two more towards the ends of the 'scale' ranging from 'totally controlling' to 'totally undergoing' that is implied with the presence of more than one participant, in order for the role of the third participant to be distinguishable. The nature of this third role will, consequently, involve neither total control nor total subjection: it will involve being affected, but not completely so. In this way, the specific character of the 'indirect' object proposed in 6.1.2 is not, as a generalization, to be considered a spurious one, but it is considered an effect of the construction of an evoked state of affairs involving three different participants, rather than a general grammatical category. In the case of no more than two participants, there is more 'room' for other factors to influence the way the abstract roles are concretely realized. This may, especially with certain types of predicates, involve an interpretation of the single object participant which more or less closely resembles the interpretation of the 'intermediate' participant in 'three participant sentences', but which cannot be identified with the latter, for the nature of the constructions

is essentially different.

6.1.5 Transitivity and comment modification revisited

We are now in a position to provide a more fundamental description of what is involved in the relation between transitivity and comment modification, which was observed to play an important role in the case of comment modifiers preceding subjects (cf. 4.3). The preceding section has provided a description of transitivity as resulting from the occurrence of more than one participant-indicating NP: the presentation of more than one participant creates an opposition between their roles, in terms of 'source' of the occurrence of the state of affairs, vs. 'undergoing' influence. It was also argued above (esp. in 6.1.3) that this opposition is generally correlated with a difference in the degree to which the participants are presented as independently perceivable, the 'source' participant normally being the most independent one.

Thus, the presentation of an evoked state of affairs as internally structured, or 'partitioned' (i.e. as 'transitive') is itself, as an act of presentation, generally 'partitioned' too: a piece of information that is in some respect perceivable independently of the evoked state of affairs is not readily integrated into the comment together with material that may be assumed to be not independently perceivable. That is, the 'normal' correlation between an opposition in terms of direction of influence and an opposition in terms of independent perceivability has the consequence that 'transitive' sentences are not readily used for conveying 'all new' messages.²⁷ It follows that, if the first of two NPs indicating participants contains the last accent (hence belongs to the comment), the sentence will usually have to be interpreted as contrastive: what is introduced into the discourse is presented as perceivable independently of the state of affairs which is being evoked. Put differently, if the last accent is placed initially in the sentence, it will usually only be non-contrastive if the evoked state of affairs is 'intransitive' (does not involve an object). Indeed, the examples given in the literature of 'all new' sentences with the last accent in the first sentence element (cf. 4.1.3.3) typically are intransitive; consider the difference between the following two sentences:

- (43) De brug was open
 The bridge was open
 "The bridge was open"
- (44) De brugwachter had de brug open gedaan
 The bridge-master had the bridge open done
 "The bridge-master had opened the bridge"

As we can see now, it is to be expected that (43) is readily (though not necessarily) interpreted as only comment, i.e. as an 'all new' message, while such an interpretation is impossible in (44). The mentioning of two participants creates an opposition in terms of direction of influence: the human participant is interpreted as the 'source' of the occurrence of the state of affairs. The idea of the "bridge-master" may thus be thought of as perceivable (in the speech situation) independently of the perception of the idea that he opened the bridge. So when the last accent is somewhere to the right (for example on brug ("bridge")), the independently perceivable information is presented as 'given', which is not contrastive, but when the last accent is on "the bridge-master", as in (44), an independently perceivable piece of information is presented as the 'news', hence the sentence is contrastive.

It is clear, once more, that the concrete role of elements called 'subjects' completely depends on the kind of ideas evoked by them, the presence or absence of other elements, and the kind of ideas evoked by other elements; thus, a forced search for some substantive inherent content common to all such 'subjects' may well prevent an understanding of such phenomena as the difference in possible usage between (43) and (44), which is in fact relatively uncomplicated. Furthermore, this analysis has important consequences for the question of the relative order of adverbials (comment modifiers as well as others) and bare NPs. Specifically, the question of the ('preferred') position of non-participant-indicating elements with respect to the 'subject' now also appears to be misguided: the question as such is unanswerable, since the function of what is called 'subject' depends on other factors than its being identified as subject. In other words, if we really want to understand more of the ordering of adverbials with respect to NPs called 'subject', we cannot look at only one type of sentences, say transitive ones, and then conclude that, for

example, predicate modifiers do not precede subjects. Thus we are led to reconsider both the specific descriptive problem of 4.3 (comment modifiers may precede subjects but have some special effect on the interpretation of the sentence in that position), as well as the generalizations about the distribution of different types of adverbials within the sentence (specifically that predicate modifiers do not precede subjects; cf. chapter 3).

When only one participant in an evoked state of affairs is mentioned, there is no opposition between roles and nothing is as yet implied about this particular participant being independently perceivable or not. Hence, a specific order of elements will not in itself lead to 'contradictory' indications about this aspect of interpretation. It is to be expected that comment modifiers may precede the 'subject' of (i.e., the only bare NP in) an intransitive clause without giving rise to specifically contrastive, or otherwise strange interpretations²⁸ (cf. 4.3):

- (45) [Dan vergeten we even alle bijbaantjes,] hoewel daar
natuurlijk een stroom anekdotes over te verhalen zou zijn
[Then forget we for-a-moment all jobs-on-the-side,] although
there of-course a stream anecdotes about to narrate would be
"[Let's forget about all jobs on the side for a moment,]
although, of course, a stream of anecdotes could be told about
them"
- (46) Aan de andere kant is er gelukkig een groeiende lees- en
weet-honger merkbaar
On the other hand is there fortunately a growing read- and
know-hunger perceptible
"On the other hand, fortunately, a growing eagerness to read
and to know can be perceived"
- (47) Indien evenwel iemand aan boord van het toestel zou worden
gewond [, zou de kaper zonder pardon worden neergeschoten]
In-case nevertheless somebody on board of the machine would
get hurt [, would the hijacker without mercy get shot-down]
"If, nevertheless, somebody on board the plane were to get
hurt [, the hijacker would be shot down immediately]"

In fact, an even stronger consequence holds. Since the single participant in an 'intransitive' state of affairs is not opposed to another one and thus not presented as in some respect independently perceivable, there is

no particular reason why it would have to precede, for example, a predicate adverbial; the ideas evoked by elements of the latter type are not normally presented as perceivable independently of the occurrence of the evoked state of affairs (if they are, the resulting interpretation is that of a 'domain-adverbial', cf. 4.4), but this does not have to be in conflict with the interpretation of the 'subject' in intransitive sentences. So in fact one may expect that all kinds of adverbials will be possible to the left of subjects in intransitive sentences, some with an interpretation like a 'domain-adverbial' ((50), for example), but also others where this interpretation does not have to arise at all ((52), for example):²⁹

- (48) [Is dit niet voldoende,] dan worden volgens een speciale en uiterst snelle procedure de rijbewijzen ingetrokken
 [Is this not sufficient,] then get by a special and extremely fast procedure the driving-licences withdrawn
 "[If this is not sufficient,] then the driving-licences will be withdrawn in accordance with a special and very fast procedure"
- (49) [Doordat het toerisme een steeds belangrijker bron van inkomsten vormt,] dreigt voor onze trekvogels een nieuw gevaar
 [Because the tourism an always more-important source of income forms,] threatens for our migratory-birds a new danger
 "[Because tourism is an increasingly important source of income,] our migratory birds are threatened by a new danger"
- (50) [Dat houdt in,] dat voor alle andere landbouwprodukten de grenzen open moeten
 [That means] that for all other agricultural-products the borders open have-to
 "[That means] that the borders will have to be opened for all other agricultural products"
- (51) Volgens het voorstel van B&W van Utrecht hebben in het schoolparlement ook ouders inspraak
 According-to the proposal of mayor-and-aldermen of Utrecht have in the school-parliament also parents a say in the matter
 "According to the proposal from the mayor and aldermen of Utrecht, parents will have a say in the school-parliament too"

- (52) Op dat ogenblik naderde met zeer grote snelheid de vrachtauto
[de chauffeur miste de bocht en reed recht op de kinderen in]
At that moment approached with very high speed the truck [the
driver missed the turn and drove straight at the children in]
"At that moment, driving very fast, the truck approached [the
driver missed the bend and drove straight into the children]"

I have presented a number of different examples, in order to make it clear that the phenomenon is by no means exceptional. It appears then that another 'generalization' that we started out with is in fact not generally valid at all, due to the fact that it was actually based on examination of only simple transitive clauses (of the "man beats dog" type). As soon as one looks beyond this, one finds plenty examples of adverbials preceding subjects. ³⁰

Finally, recall from 4.3 that certain indefinite types of 'subjects' of transitive clauses (esp. quantified elements like niemand, "no one", iemand, "someone", iedereen, "everyone"), although related to the 'source' role in the evoked state of affairs, may be preceded by comment modifiers without the occurrence of 'special' interpretive effects. It was stated that such sentences generally do not report an actual occurrence of the process named by the verb; i.e., they do not evoke the idea of the 'object' actually undergoing some influence, but of a situation that is characterized in terms of the process named by the verb. Thus, they do not contribute to the development of the flow of events in a story or in the conversation, but they are rather interpreted as providing 'background information'. ³¹ The effect that the state of affairs involves a more or less general characterization of a situation, rather than a controlled event (an 'action'), results from the fact that these indefinite pronouns do not normally indicate specific entities. That is, the indefinite pronouns are not normally used to evoke the idea of something as independently perceivable (in the case of "no one", such usage even seems impossible). As a consequence, the presentation of the evoked state of affairs does not have to be taken as 'partitioned' in the sense that was explicated above, i.e. it is not normally interpreted as involving some pieces of information that are independently perceivable and others that are not. So in fact we expect all kinds of adverbials to occur to the left of such subjects, without specific interpretive problems:

- (53) Nu had trouwens iedereen al een vlaggetje gepakt
 Now had for-that-matter everybody already a flag taken
 "Now besides, everybody had already taken a flag"
- (54) [Ik betreur het,] dat ten aanzien van de politieke
 samenwerking niemand een initiatief heeft durven nemen
 [I regret it,] that with regard to the political co-operation
 no one an initiative has dare take
 "[I regret] that with regard to the political co-operation
 no one dared take an initiative"
- (55) Toen stond toevallig iemand de Internationale te zingen
 Then stood by-chance someone the International to sing
 "Then someone happened to be singing the International"

So if one of the NPs evokes another idea than that of an actual participant, we may very well have a so-called two place verb with both 'argument positions' filled and still have an evoked state of affairs that is not presented as consisting of an independently perceivable participant who is a 'source' of influence for the other. In view of this characterization, it is understandable that an adverbial preceding the 'subject' in such a sentence does not give rise to 'special' interpretive effects; in fact, they behave in more or less the same way as in sentences with only one bare NP present, as the above examples illustrate.

6.2 Conclusion

The purpose of this chapter was to show that the approach applied in the analysis of the relation between interpretation and distribution of adverbial phrases could be successfully extended to another descriptive domain. We set out to show that insight could be gained into word order phenomena not directly involving adverbials, by using the same kind of 'critical' questions (deriving from general ideas on the nature of linguistic signs), and also notions that are at least similar to those employed in the analysis of adverbials. Looking back on the results of the discussion, I want to claim that the attempt has indeed been successful: the relative order of bare NPs appears to depend on the same kind of factors as were shown to be relevant in the case of adverbials; or rather, there are similar effects in the case of the order of NPs relative to each

other as in the case of the order of adverbials relative to other sentence elements. Specifically, the analysis of the relation between the relative order of NPs and their interpretation has been based on the same abstract function of word order that was proposed in chapter 5: of two different pieces of information (in this case, participant-indicating NPs), the first is presented as perceivable independently of the latter, hence of the evoked state of affairs in at least some respects. As a consequence, it has also become more clear why there is a relation between the position of adverbial phrases and the interpretation of the sentence in terms of transitivity, specifically the number and type of participants mentioned in a sentence.

At the same time, our considerations have led to the conclusion that word order does not function as a sign for the traditional 'grammatical functions' of 'subject', 'direct', and 'indirect object'. For the latter two notions, this immediately implies that they do not in fact refer to the content of linguistic categories, i.e. they are not meanings of signs, since there does not seem to be another class of formal phenomena signifying such supposed meanings. As for the notion 'subject', we have suggested that the phenomenon called "Agreement" does not provide a sufficient basis for assuming a notion of 'subject' with an independent content (i.e., a content beyond the meaning that can be attributed directly to the ending of the finite verb), even though we do not yet have insight into all aspects of the phenomena involved. Furthermore, there seems to be little perspective in finding a common denominator in the roles of 'subjects' in all different types of sentences, both 'single-participant' and 'multi-participant sentences'. Most important for our present purposes, however, is the conclusion that the role of word order can be considered a constant factor in the interpretation of sentences, not relating directly to the roles of participants in a state of affairs, but to the perceivability of the ideas evoked by sentence elements in the speech situation, as independent of the evoked state of affairs or not. There certainly is a relation between the relative order of NPs and the interpretation of their roles, but it is an indirect one, interacting, furthermore, with other meaningful elements in the NPs and in the rest of the sentence.

Concluding Remarks

7.1 On Dutch

In the first part of this study, specifically in chapters 1 and 3, we noted that the way adverbials are generally described constitutes an analogue of the way participant-indicating elements ('argument noun phrases') are described; both the idea that the notion 'adverbial modifier' refers to a syntactic function and the distinction between sentence modifiers and predicate modifiers are direct parallels to the generally accepted views on the status of the notions 'grammatical subject' and 'grammatical object', and the difference between them.

In the course of this study, we have then more or less systematically distanced ourselves from this picture. It started out with the problem that it is, on some consideration, quite unclear what should actually be the basis of recognizing 'adverbial' as a syntactic function, while there did seem to be such a basis for recognizing 'subject' and 'object' as syntactic functions: in word order. We set out to show, first of all, that the order of sentence elements in Dutch does not encode something like an 'adverbial function', and specifically not something like a difference between 'sentence modifiers' and 'predicate modifiers', and that the ordering phenomena that can be adduced in support of the latter idea may preferably be viewed as symptomatic of the 'normal' relation of the particular phrases involved to the information structure of the sentence, given a general, abstract function of the order of pieces of information. Finally, however, it appeared that a similar analysis could be applied to the originally 'unproblematic' case of the order and the interpretation of bare NPs too. In that way, we were first of all able to capture some 'exceptions' to the general 'restrictions' on the relative order of participant indicating elements in a sentence under the same 'rule'. Secondly, it was possible to make comprehensible the relation between the role of adverbials in a sentence and the interpretation of bare NPs: in traditional terms, this relation is manifested in the fact that the effects of different positions of an 'adverbial phrase' relative to the 'subject'

not only depend on the content of these elements themselves (as indefinite, or pronominal, for example), but also on the question whether there is an 'object' present elsewhere in the sentence or not. As long as we hold on to the idea that the relative ordering of two elements functions as a sign for the role of these elements with respect to the evoked state of affairs, and to its corollary -- that there is some fixed content to each of these roles (because they are viewed as the meaning of some syntactic sign) -- such a relationship could hardly be acknowledged, let alone explained: for how could the presence or absence of a 'third' element make any difference at all for the relative order of two other elements, if the position of an element is a sign for its role, which therefore has a constant (core) content?

As a substitute for the conception of relative word order as a grammatical sign for sentence-internal roles, we developed an analysis of general effects of the order of elements on the interpretation of the elements and of the sentence as a whole, as well as an analysis of the meaning and use of a number of grammatical and lexical units constituting these elements.

The analysis of the effects of word order on interpretation was based essentially on the idea that of two different pieces of information relating to the same evoked state of affairs, the one that is produced first is thereby presented as perceivable, in the speech situation, independently of the evoked state of affairs in at least some respects. When discussing this idea in connection with the issue of the distribution of adverbials (esp. 5.3.2), we were concerned with the relative order of pieces of information as "comment", "given information" and "comment modifier", while chapter 6 was about the relative order of NPs indicating different participants in an evoked state of affairs. It became clear in the course of chapter 6 that a number of problems in these two descriptive areas are indeed closely related and allow for analyses in partly the same terms. On the other hand, this implies that the proposed general function of word order must indeed be conceived in a highly abstract way, which in turn entails that there is no way of observing this function directly: the precise effects are different depending on the (kind of) elements whose order is analyzed, and ultimately even different for each individual case.

The very generality, as well as the actual content of the function of word

order might be taken to suggest that it does not have the status of a sign, but is simply a consequence of the assumption that the order of elements is functional (cf. the discussion in 5.3.2). As I said before, I would certainly prefer the latter position, because it seems to present a more simple picture of what is required in order to be able to use word order as an instrument in communicating messages. The actual difference with the first view is perhaps not very big, however, since it could be argued that, although the function of word order must be learned, this is in fact relatively easy for the very reason that the function is in a sense 'iconic': what it does with the interpretation of the ideas evoked by linguistic elements is an interpretive parallel of the perception of the linguistic elements themselves. In any case, it would be especially interesting from this point of view to look for possible relations and/or contrasts between the general function of word order proposed here and phenomena that are traditionally considered to provide word-order signals, like "finite verb in first position", or "Topicalization" (preposing of a non-subject to the first position of the clause, to the left of the middle part). To the extent that such phenomena indeed appear to have the status of signs, and to the extent that the general function of word order appears to be a kind of general background with respect to which such signs are interpreted, there will be less reason to assign the general function itself the status of a meaning.

Besides a hypothesis on the general function of word order, a number of other hypotheses on the meaning and usage of several elements and classes of elements have been put forward. These involve such elements as "accent", "indefinite article", "personal pronoun", and "occurrence of a verb beyond the second position of a sentence". In the field of lexical meanings, the distinction between 'animate' and 'non-animate' is well-known, but we have also distinguished a lexically determined function of specifying an 'outside' assessment of a state of affairs, in an attempt to characterize a difference between different classes of adverbials. A general distinction between categories which is presupposed by the analysis is the one between different word classes (nouns, verbs, prepositions, adjectivally and/or adverbially modifying words,¹ pronouns, etc.). Quite often, the meanings of such elements provide more or less forceful 'suggestions' as to the independent perceivability of the ideas they evoke with respect to the evoked state of affairs as a whole, so that these meanings will interact

with word order to produce interpretations that are felt to be 'normal' or 'special' in one respect or another. Another suggestion as to the independent perceivability of the ideas evoked by certain elements may derive from the number of actual participants in the evoked state of affairs. In retrospect, it appears that it is this suggestion which is often mistakenly adduced as the basis for the idea that the relative order of elements directly expresses the role of the elements in the evoked state of affairs, the idea that relative order must be considered a sign for a number of different 'meanings' in modern Dutch.

Just like any proposal for an analysis, the present one also has its limitations, and consequently there are also problems which require (further) elaboration. For example, we have mentioned the phenomenon of 'Topicalization' only in passing: as was shown in 5.4.2, the behaviour of adverbials in sentence initial position may be described without invoking some idea of 'preposing', but it is not clear that this will be possible in the case of other kinds of elements in the first position of a sentence. And there is also the question of the status and the function of prepositional phrases traditionally analyzed as objects (indirect or prepositional objects): how could this interpretation be made understandable and how do they relate to comment formation, upon closer investigation of interpretive aspects of their position relative to other elements? Despite the fact that these questions and other ones still require an answer (which will, undoubtedly, give rise both to modification of the present proposal and to new questions), we may nevertheless claim to have contributed to a deeper understanding of the nature of the relation between word order and interpretation in Dutch.

7.2 On linguistics

As we have seen, the analysis proposed in chapters 4, 5 and 6 involves a shift in the view on the nature of traditionally distinguished grammatical functions, from alleged meanings of several specific orderings (whether or not limited to an assumed abstract, 'underlying' structure) to a joint effect of the general function of word order and the grammatical and lexical meaning of the elements occurring in a sentence. This shift in the view of the object of analysis is accompanied by a shift in the conception

of linguistic analysis itself. Several aspects have already been noted before (especially in chapter 2; cf. 2.5), but it is useful to make one point explicit (again), which may be appreciated most at the end of this study, because it involves a relation between the practice of research and the content of the notion of 'explanation'.

A recurring theme in the conclusions at several points in our analyses has been the recognition that what at first sight appeared to be the 'general rule' when describing a certain relation between word order and the interpretation of (elements of) a sentence, was ultimately quite far removed from being a relation between form and meaning. Rather, the 'exceptions' to the 'general rule' were of essential interest in our attempts to formulate hypotheses about meaning and usage of categories, i.e. to explain both the 'general rule' and the 'exception'. In that way, we use a concept of 'explanation' that is different from the dominant one in the field today. The latter is closely tied up with the ideas of prediction and reduction: it is generally considered a necessary condition for something to be called an explanation that it presents the phenomenon involved as predictable given certain assumptions, which thus reduces the phenomenon to the content of these assumptions. This concept of prediction is also related to the idea that it is necessary for something to be an explanation that it is falsifiable. Now I do not want to argue that this conception is impossible or incoherent: in principle, there is no way of doing so, given the essential freedom to form concepts. But I do want to suggest that this conception is not very useful in linguistics, and specifically that it is not consistent with the functional approach adopted in this study.

As we have been arguing, the meanings of linguistic categories are rather abstract. Furthermore, many of them are relational in nature, in that they provide information about how something is to be interpreted with respect to something else (in the evoked state of affairs, or in the speech situation, for example). Both of these factors, especially when combined, have the consequence that the concrete, actual interpretation of a manifestation of a linguistic category always depends on other factors than meaning as well, some of which may be non-linguistic. That is to say, meaning never strictly determines a concrete interpretation, so that such an interpretation can never 'falsify' a hypothesis about meaning. The same

is true about such general hypotheses as that presenting a state of affairs as involving more than one participant effects a certain opposition between their roles ('transitivity'), or that ordering effects a differentiation in terms of independent perceivability, since here too the actual interpretations are always also dependent on other factors, possibly non-linguistic.

Furthermore, speakers use lexical and grammatical signs, as well as word order, for certain purposes and since there is no way to predict purposes, nor a way to predict what instruments a speaker will choose to effect his purposes on a particular occasion, there is no principled limit to the combination of different 'instruments' in one message. There is thus no principled reason to assign a different status to 'regular' and 'irregular' cases, i.e. there is no reason to suppose that in so-called 'irregular' cases, speakers and hearers make use of essentially other means than in so-called 'regular' cases - say, knowledge of the language in one case and also imagination, a 'performance' factor, in the other (when producing an 'ungrammatical' sentence, for example). Instead, both 'regular' and 'irregular' cases are to be viewed as essentially ad hoc combinations of a number of different linguistic means, whose analysis is to be undertaken in precisely the same terms, not by presenting a description of the latter in terms of the former, as 'deviations' from a 'norm'. In that way, the linguist would run the risk of blocking the prospect for a deeper understanding, because the assumed general character of the 'regular' cases is simply identified with 'meaning', and 'irregular' cases are labelled as deviations, which are thereby in effect declared irrelevant for an analysis and in fact not really comprehensible at all. From the point of view defended here, so-called 'exceptions' to general tendencies are rather considered as crucial evidence for an analysis that claims some depth of understanding. The search for an analysis of 'exceptions' to alleged 'general rules' that is an essential part of the research strategy of this study is the practical parallel of the conviction that speakers are essentially free to use the instruments available to them in their language, and not bound by constraints that forbid the use of certain combinations of elements as just impossible combinations.

These points are essentially the same as those formulated by García (1983) at the end of her discussion of a number of occurrences of the so-called

reflexive pronoun in Spanish that do not 'conform' to the 'regular' pattern:

Although in our discussion of the various departures from the norm we kept appealing to the same underlying principle, we also appealed to different (and in principle unpredictable) ad hoc realizations of that principle "in context." The different possible realizations of an underlying principle are thus open ended in number, not only not defined, but in fact not even definable [...]. The complementarity [of forms with different meanings] resides, ultimately and fundamentally, in the human ability to categorize events and entities as belonging to one "virtual" type as opposed to another. In short, it is the intelligent language user who plausibly (but no more) decides what (in this context) counts as what. (García (1983: 203/4)).

What I want to add to this statement is that the speaker is not only able to categorize events and entities, but is also essentially free to decide "what (in this context) counts as what". The events, the entities and the context do not come labelled, nor does the grammar of the language 'prescribe' what kind of things are 'permissible'; so whatever a speaker says on a particular occasion is both his choice, and his responsibility.

There is no way to predict, then, in any useful sense of the word, that certain combinations of elements will not occur. To be sure, we do have certain expectations of what we will find in actual language use, on the basis of an analysis, and it is definitely useful to see if these expectations fit practice. Thus, the analysis of the relation between transitivity and the relative order of subjects and adverbials leads to a certain quantitative expectation about the occurrence of different orderings, and we have provided some data bearing on that expectation. However, another statement from the same article by García is relevant here as well:

Correlations merely reflect, over a large number of instances, the same phenomenon that is highlighted in the single instance by qualitative validation, namely, a judgment by a user of the language that one meaning is more appropriate than another to a situation characterized by a particular trait. (García (1983: 203)).

Here too, I would like to add something. Quantitative data can neither corroborate nor falsify an explanation in the sense we are now considering. Rather, they may provide some cases where the analysis developed so far is

sufficient to gain an understanding of certain aspects of the texts or dialogues involved, and they may provide others in which this is not the case: the latter is in itself never a reason to consider the original analysis as 'false'. Nevertheless, it is useful to undertake such enterprises, precisely for the reason that they may, and generally will, provide us with new material to reconsider the nature of an analysis, to modify it, to form new ideas on what actually constitutes the difference between different types of texts or dialogues, etcetera. In other words, what makes it useful to confront one's expectations with actual language use, both large numbers and specific cases, is not that an analysis can be corroborated (by not being falsified), but that it may lead to the development of new analyses. But the idea that linguistic analyses should make falsifiable predictions is an attempt to put forward a specific view on the nature of language and of human beings as the only valid one, under the guise of some conception of 'scientificness'.

Notes

Notes to chapter 1

1. The fact that it is thus implicitly assumed that argumentation is possible at this very general level of discussion does not mean that I think that an approach could be 'disproved' in this way, or, indeed, in any way at all: I don't. But that does not mean that all discussion is useless: it is a misconception of scientific discussion that its only purpose should be to ultimately convince one's opponents, or at least every one else, of one's position. Discussion may lead to clarification of fundamental assumptions, for example, which may be useful for the progress of research, even if it does not result in convincing anyone who first believed something else; it has, furthermore, a high educational value, and there are undoubtedly many more reasons one could think of for not abandoning discussion between different 'schools' of linguistics, although the actual positions taken are ultimately a matter of belief.

2. Actually, there is no principled distinction to be made between linguistic elements producing such indirect effects, and other, non-linguistic ones; i.e., knowledge of the situation to which an utterance is (intended to be) applied may well be said to 'evoke' some interpretive aspect just like the knowledge of the presence of a certain linguistic element within the utterance itself. The context of the present discussion, however, is the question of how assumed regularities between aspects of interpretation and aspects of linguistic form may in principle be analyzed; one purpose of this exposition is to make it clear that even in that case there are more possibilities than simply assuming that the interpretive aspect is an immediate result of the use of some linguistic form; hence the limitation to linguistic elements as related to aspects of interpretation in the formulation of II, III and IV in (A).

3. The overview presented in (B) strongly resembles the presentation in Bakker (1979: 198); a difference is that Bakker is considering the question of whether different theoretical positions allow for any homonymy and/or synonymy in grammatical analyses, while we are only considering the question of how one relationship might be embedded in some analytical framework.

4. Throughout this study this will be a general method of illustrating problems and proposed solutions; i.e., we will often not provide isolated examples, claiming that they are either grammatical or ungrammatical, or that they mean either this or that, but rather present double examples, claiming that one is, in some respect, 'better' than the other, or means something else in some specific respect, and that this difference illustrates the empirical content of a problem or an analysis. Thus, if a sentence is accompanied by, for example, a question mark, this is not intended to indicate that the status of the sentence involved is inherently

different from that of other sentences. Cf. also the Introductory Notice.

Notes to chapter 2

1. Recall that this is in fact somewhat simplified, in as far as non-linguistic elements may well have similar effects on the way an utterance is actually interpreted; the situation that concerns us specifically, however, is the one of an observed, more or less regular relation between the occurrence of some linguistic form and some interpretation, hence the limitation to "linguistic elements" in the formulation of II, III and IV, here; cf. also 1.1, note 2.

2. Of course, both positions may also be formulated 'the other way around': those who like the assumption of intricate innate capacities (for whatever reason) will obviously welcome a view of language as complex; those who like to see language as simple will tend to invoke Occam's razor, thus to reject the idea of intricate innate structure.

3. Thus, an 'orthodox' structuralist view on these phenomena, demanding that all categorization in linguistic descriptions be in terms of 'surface' forms, would be obliged, it seems, to deny the existence of this category. As another example, consider the requirement in Schultink (1962: 17/8) that (morphological) word classes be distinguished completely in terms of the possibilities for the members of the same class to serve as the basis of the formation of morphologically more complex words; in the case of derived words like houten ("wooden", "made of wood") and gouden ("made of gold"), this leads to the unnatural consequence that they cannot be classified as adjectives, because they do not allow for the formation of any more complex forms, while their own basis is not adjectival either (in contrast to superlative forms, for example, which cannot be the basis of more complex forms either, but they are themselves derived from adjectival bases).

4. This suggests a 'natural' link between synchronic grammatical studies and historical linguistics and socio-linguistics, within this functional approach: usefulness and interests may vary in several dimensions.

5. Unity of meaning is, of course, a necessary, though not a sufficient condition for pragmatic functionality.

6. This characterization of the formal approach is a specific variant of the idea, expressed by Bakker in a number of papers, that there is a "primacy of form" in structural (including generative) linguistics (cf. Bakker (1979: 198) and references cited there).

7. A complete lack of limitations of this kind leads to something like Generative Semantics; cf. Bakker (1972: 13).

8. Chomsky (1981b: 17): "Keeping to a reasonable conception of core grammar - thus eliminating from consideration elliptical expressions, etc. - a clause must at least contain a predicate". For wh-movement and deletion, cf. the discussion of trace theory in 2.4.2.1.

9. This fact illustrates the point that it is always necessary, in

evaluating theories, to distinguish consequently between the concept which is formulated in a certain principle and the formulation itself, as well as to take the whole theory into consideration because the scope and effects of separate parts cannot be assessed in isolation.

10. In a 1982 interview Chomsky stated, albeit as an aside, that the A-over-A principle is incorporated in Aspects (Chomsky (1982: 62)).

11. The Insertion Prohibition is the predecessor of the Condition of Strict Cyclic Rule Application (Chomsky (1977)a; cf. Chomsky (1982: 61/2)). I agree only partly with the presentation of Blom (1982: 237, note 2), in as far as she claims that Aspects contains the idea that 'the domain of application of rules is restricted to a single clause', without the restriction that this has been made dependent on the type of rule.

12. A variant of this idea can be found in Blom (1982: 237, note 2).

13. An argument of precisely this type has been put forward by Bresnan in a number of papers (cf. Bresnan (1976), (1977)).

14. The question remains, of course, whether this strategy does not stretch the notion of anaphor to the point of it becoming vacuous; cf. Verhagen (1980) for an argument to that effect.

15. Previously, sentence (3) was excluded by two conditions: both the Specified Subject and the Tensed-S Condition. The theory of the Nominative Island Condition thus eliminates a redundancy. The way the redundancy is eliminated runs directly counter to the one proposed by Koster, specifically, to his "Bounding Condition" (cf. Koster (1978)), which rather seems to embody the autonomy idea. Other work following in the tracks of Conditions and trace theory can be characterized in terms of increasing or decreasing distance from the autonomy idea as well; for example, Freidin's (1978) abandonment of the strict cycle, which suggests less autonomy, or the NP-Constraint of Bach & Horn (1976) - which suggests a greater degree of autonomy).

16. Another requirement is that Y is not lower in the tree than X, but this is irrelevant to the present discussion.

17. Unless, of course, the subject-NP in itself contains a subject: if the bigger NP is, for example, their interest in each other, the antecedent is always their, which is accounted for in ways discussed above.

18. The descriptive content of the complete theory is still different from On Binding, but only for reasons having to do with the content of the notion "anaphor", which includes PRO and wh-trace in 1978, but not in 1981.

19. Another relevant case concerns wh-movement. The crucial point here seems to be the view on the so-called bridge conditions, i.e. the fact that wh-extraction (specifically, out of a clause) requires the presence of matrix predicates of a certain limited type. The two possible positions with respect to this fact are the following: first, extractability is the general rule, non-extractability is the exception, caused by certain additional conditions of a lexical and/or semantic nature - this corresponds to the transparency idea; second, non-extractability is the general rule, extractability is the exception, licensed by certain specific

semantic and/or pragmatic factors - this corresponds to the autonomy idea. I will not pursue this issue here, but cf. Erteschik-Shir (1977); also Koster (1978: 43, 62).

20. That is to say as far as clauses are concerned. In the simplified version presented here, the SSC effects in noun phrases are not entailed. As we have seen in 2.4.2.1 (specifically, the portion on 1981), this has been part of the reason for the introduction of the notion of "accessible SUBJECT"; so we see that this notion indeed increases the redundancy in the system again, as the SSC effects in clauses were already derivable from the simple version.

21. This has always been the case in descriptive practice in generative linguistics, but it has been laid down more explicitly in the so-called θ -criterion (cf. Chomsky (1981c: 15)) and the projection principle (cf. Chomsky (1981b: 29-32)).

22. The following part of Chomsky's reaction to a question on why semantic notions had been reintroduced into grammatical theory in 1981 (in the form of so-called thematic roles) seems to me quite significant: "one thing has not been brought back in, and that is the difference between different thematic relations. Nothing has been said here about the difference between Goal and Source for example. Part of the reason is I don't understand this very well. I never know how people are able to pick out thematic relations with such security, I can't." (Chomsky (1982: 88/89)). In accordance with this position, different thematic roles within one sentence are often not distinguished by means of names referring to their content, but by means of purely discriminatory devices, like the notation " θ , θ^* , θ^{**} " for three different semantic roles.

23. For an insightful discussion of the semantics of the A.C.I. constructions with believe and the like, cf. Bolinger (1977: 124-134).

24. It seems that only with such head nouns may anaphors occur within NPs; cf. ??Both persons thought that the seats beside each other were not yet occupied. Still, the best description in these cases seems to be that the presence of an anaphor forces the interpretation of some determining entity (which is more natural or less so, from one case to another), rather than that the presence of an "implicit argument" licenses the presence of an anaphor.

25. Daalder & Blom (1976), who were the first, to my knowledge, to observe the relevant facts reflected here in sentences (23) - (25), actually put forward this proposal; it was, however, especially intended to account for the fact that the alleged antecedent outside the NP containing the anaphor does not have to be in the otherwise generally required 'command' position with respect to the anaphor, and not to express the idea of autonomy of NPs, although this naturally falls out.

26. Accordingly, Koster (1984), in discussing some observations which are to some extent parallel to those in Daalder & Blom (1976), does not talk about "empty categories" but about "implicit arguments" in the NPs involved. It will be clear that I agree with the descriptive content of his idea that anaphora is local in such cases too, but not with the suggestion that this would confirm the idea of locality conditions as conditions on formal representations. In this respect, the talk of "implicit arguments"

provides only terminology, no insight. For example, consider the problems of this move given the (representational) definition of 'argument' as an NP in a position to which a semantic role is assigned, and the (representational) definition of 'antecedent' as an NP with an index *i*, c-commanding (i.e. not being lower in the tree than) an anaphor with an index *i*.

27. This investigation of the irreducible meaning of elements considered anaphoric has been partly taken up recently, in Pauw (1984), for the Dutch 'non-emphatic reflexive pronoun' *zich*. For other arguments to the effect that coreference (represented as co-indexing) cannot be the content of so-called binding relations, cf. Verhagen (1980).

28. Another point worth recalling is that generative linguistics is not to be criticized as an approach trying to force some linguistically arbitrary idea on the structure of the world into the description of the structure of language. As was argued extensively, several contradictory aspects of generative linguistics have to be understood in view of the pursuit of genuinely linguistic goals within this part of the field.

29. In fact, what is actually formalized consists of some of the relations between elements of the theory; generally those that are understood well enough to allow for formalization. Formalization is always dependent on understanding and it is never the other way around.

Notes to chapter 3

1. We will be discussing such generalizations, and especially the 'exceptions' to them (which are actually rather numerous), quite extensively in chapters 4 and 5, because they provide important indications as to the semantic and pragmatic factors involved.

2. Admittedly, not all of this is to be found explicitly in some specific generative publication on adverbials, but it does represent the essential content of (implicit) suppositions and explicit argumentation in discussions concerning the 'base positions', 'movement rules', etc. for adverbials.

3. Hoekstra (1984) develops an approach to phrase structure without phrase structure rules within the framework of Government and Binding. We will comment on his way of dealing with adverbial positions in relation to the interpretation of sentences in the next section.

4. As is the case in the relevant literature itself, we will pass over the question of how phrases (e.g. prepositional ones) that behave like adverbials in all distributional and interpretive respects but do not have an Adverb as their head should acquire the properties ascribed to single lexical items.

5. One advantage of Ernst's approach remains, in that he needs far less lexical homonymy in the class of adverbs.

6. There is not as much generative literature on this specific topic as

there is on the topic that will concern us in 3.2.2 and 3.2.3. In fact, there is not much more than a loose remark in Booij (1974), and certain parts of the papers by De Haan (1976) and Van den Hoek (1980).

7. This string could be improved by means of a strong pause before the final NP - which must then receive an intonation as an independent expression:

- (1) De generaal heeft het niet kunnen verwerken waarschijnlijk - de nederlaag
 The general has it not been-able to-digest probably - the defeat
 "The general has not been able to cope with it probably, the defeat"

I think that this indicates precisely what is going on: the fact that the 'dislocated' NP cannot be unaccented (as it normally is) when there is a 'dislocated' adverbial too is in fact evidence that the two are mutually exclusive, and that the final NP in (1) must indeed be considered a completely independent expression.

8. Cf. De Haan (1976); Emonds (1976) makes a similar claim for the English adverbials that allow for dislocation in his analysis. De Haan (1976: 283) gives the following example:

- (1) *...omdat Louise de koeien heeft gemolken machinaal
 ...because Louise the cows has milked mechanically

De Haan judges this example ungrammatical; I would not, but it is true that there is something strange about it. We will return to this issue in 5.4.1.

9. There is, however, a significant majority for the position that it is the NPs which move (i.e. to the left). As far as I know, the alternative that the adverbials move (to the right) has only been proposed in Booij (1974) the first paper within the EST-framework on adverbials in Dutch. The main point of that paper is to defend the EST view on the relation between adverbials and their (adjectival) paraphrases (like It is ADJ/ADV (so) that S) as not being transformational in nature; apparently, the different observations made since then generally induce a preference for the position that the NPs move, rather than the adverbials.

10. Cf. De Haan (1979: 65): "these sentences are to receive the same semantic interpretation, as far as the distribution of adverbials is concerned."

11. Within the framework Hoekstra adopts, this implies that the movement creates a situation of so-called A-bar-binding (binding between 'non-Arguments'), i.e. in surface structure the moved lexical NP functions as an operator binding the phonetically empty position left behind, which functions as a variable; the moved NP does not function as an antecedent for an anaphor as in cases of so-called A-binding (binding between 'Arguments'). One might legitimately wonder whether this does not deprive the notion of A-bar-binding of too much of its identity, because as far as I can see, it has been restricted so far to situations where the process was identifiable by means of morpho-syntactic features (esp. involving *wh*-phrases and clitics). Actually, Hoekstra more or less reverses this objection, however, as he suggests that adjunction as such is restricted to specific structural domains (see the text following this note), and only

if the relation is morpho-syntactically identifiable, is it allowed to involve larger domains (Hoekstra (1984: 117)).

12. For example, the 'do-so replacement test' (Hoekstra (1984: 114/5)) suggests that standard sentence adverbials like modal modifiers should not be contained in a VP, so that we would have a choice for the first of the two options: as is well known, modal adverbials, and more generally all speaker-oriented adverbials, are excluded from such a 'replacement'. But on the other hand, Hoekstra explicitly denies the consequence of this choice, for he also presents examples which contradict the idea that there is a difference between sentence and predicate modifiers with respect to their order relative to object NPs; he even adduces this as evidence in favour of the idea that NPs move upwards (to the left) as a special case of 'move alpha' (pp. 119/20).

13. For example, it is not incorrect, although rather trivial, to say that sentence adverbials do not change the semantic type of the predicate of a sentence either.

14. The part that might be true concerns the objection that it must be possible to differentiate structurally between subjects and objects in surface structure in order for certain 'late' rules to work properly, and that NP-preposing ('raising' an object to become immediately dominated by S like a subject) prohibits this. Since Hoekstra's adjunction rule creates a new dominating VP every time an object NP moves upward, this objection does not apply, at least not to this specific case. It might still apply, however, in the case of direct vs. indirect objects, but I will not go into that any further.

15. In chapter 6, we will encounter reasons for doubting the generality of this 'fact', but the claim that the preposing analysis risks making is in fact the very strong one that all indirect and direct objects are freely interchangeable, and this is clearly false.

16. The scope of this "Minimal String Principle" is wider than might be suggested by the present discussion, but as indicated before, I am limiting the discussion here to the account of the distribution of adverbials and the effects on the interpretation of sentences.

17. On Hoekstra's account, (25)b would contain an extra, newly created VP node 'between' the subject (hi) and the preposed object (een grotere computer).

18. Again, it has to be said that Hoekstra's ideas on this point are in fact not elaborated enough to evaluate them conclusively.

19. In Hoekstra's analysis, indirect objects will, 'from the very beginning', have to be generated on the same level as direct objects, because he assumes that V' (=Vmax) is S in Dutch, dominating the subject NP and V', which will then have to dominate both objects immediately (Hoekstra (1984: 79); cf. also the diagram (202) on p. 217). Thus, a 'minimal distance' principle in terms of strings rather than structure alone will be needed.

20. This assumes that a category AdvP (or PP, or whatever) cannot be rewritten as NP, an assumption which is laid down by the X-bar theory,

which stipulates that each major syntactic category is identified with a unique type of lexical head (is a projection of a lexical category). Note, also, that this descriptive objection suggests a far more general problem: how to prevent the purely categorial 'rule' 'adjoin-NP' (as a case of 'move alpha') from applying to adverbial and predicative NPs in the same way as to argument NPs. All kinds of possibilities are thinkable, of course, given the set of notions current in the GB-framework, but I suspect they would always undermine the explanatory range of a strictly configurational account (for example, if an appeal were made to ' θ -roles' or 'government', which always involve lexical-functional information).

Notes to chapter 4

1. We will use the term "sentence" in the usual, somewhat intuitive sense of a unit of information, corresponding to "a string between two brackets with the label 'S'", as it is used in generative grammar. Where necessary, a terminological distinction will be made between "clause" and "sentence" (an exemplar of the latter may, but need not contain more than one exemplar of the former). In 5.4.1, the notion of "sentence" (esp. with respect to the way an information unit is delimited) will be sharpened in some respects.

2. It will therefore occur several times that 'exceptions' will be noted in chapter 4, with an announcement of further analysis in chapter 5. This will not lead to a cumulation of unsolved problems because the 'exceptions' are all of the same type,

3. As announced in the "Introductory Notice", the position of an accent is indicated by means of underlining of the accented syllable. Recall that whenever examples contain indications of one or more accents, the last accent indicated represents the last accent of the sentence, but the first one indicated is not necessarily the first accent in the sentence; for example, (1)a is intended to be read with such an accentuation that the last accent is on the underlined syllable, but it does not indicate possible other accents preceding it. In these specific cases, other positions of the last accent are not excluded, of course; the only point here is to make the effect of word order maximally visible.

4. Especially the label "focus" may be quite confusing in practice, because it is used by some linguists (esp. those from the field of Form-Content Analysis) as shorthand for "focus of speaker's attention", i.e., for what it is in the discourse or the setting that the speaker's contributions are about, rather than the 'news' within his contributions. In this study, only the term "comment" will be used, in the sense which is explained above; we will return to the content of this notion, in particular when discussing the role of accentuation (see 4.1.2, esp. the end of that section).

5. The exposition to follow is also based partly on Keijsper (1984), which is, however, written in Dutch. The latter paper goes further into specific details of Dutch intonation and accentuation.

6. As Seuren (1976: 178) indicates, there are systems of logic in which

"not not" is not equivalent to the absence of negation. Seuren is referring to "intuitionistic" logic in work by Brouwer and Heyting.

7. This exposition in terms of the proposal that the meaning of accent is "relevant alternative" essentially follows Keijsper's (1985) idea that the meaning of accent as "not not" allows for two different types of interpretation too: an accent on an element X always negates "not X", but the latter negation can be construed as either some other idea in particular, or as "all other ideas than X". I do think, however, that the formulation in terms of "relevant alternative" is more natural in this respect, too.

8. The phrase "has been considered" is used, and not "was known", because the actual applicability of an idea is easily denied, or questioned, by the sentence containing the accented element involved. Actually, Keijsper uses the terminology "existence of the referent of a linguistic element" (with "referent" in a specific, rather wide sense) for what I described as "applicability of the idea evoked by an element", and "projected" for what I call "considered", but, as far as I can see, possible differences are limited to parts of her analysis that do not concern us here; therefore, I use a terminology which does not require specific stipulations on the intended usage of the terms.

9. In principle, these interpretive differences could also be attributed to another formal difference in the sentences involved: the fact that the a-cases involve a high tone, while the b-cases do not. One advantage of this would be that it would be possible to correlate the interpretive tension of the announcement of something yet to come to the greater physical tension of the high tone, rather than to the accent which starts this high tone; a fall might then be analyzed as simply the end of the tension indicated by the high tone. There are some problems with this view, however. For one thing, it would seem to imply that for speakers of Dutch, there is a systematic perceptual difference between a pitch contour in which the final syllable contains a rise with nothing following it pronounced at the high tone level, and a contour with a rise in the final syllable plus something (however minimal) pronounced at the high tone level (cf. Keijsper (1985: 366, note 29)): the former would only have the meaning of accent, the latter would also have the meaning "something else is yet to follow". Checking this implication involves too much subtlety of observation to be carried out outside a specific technical setting. Secondly, if a fall were in itself to have no other meaning than the meaning of any accent, then it would be unclear how it could be explained that a fall is always the last accent of an information unit (cf. also note 10). Nevertheless, it is still possible that things might eventually turn out to be better described this way. For the purposes of this study, however, there is not much difference, as we will be concerned especially with what is common to the meaning of all accents.

10. Notice that it follows from the definition of the meaning of the pitch accent "fall" that it always introduces the idea "This is what I was planning to say", and hence must be the last accent of a sentence. More precisely, an accent following a fall will be interpreted as belonging to another unit of information (cf. Keijsper (1984: 26/7, 36)); a fall thus provides a means of delimiting a unit of information.

11. Any sentence allows for an interpretation as contrastive, so the

relevant distinction is between the necessity of a contrastive reading of the sentences (14)b and (15)b, and the possibility of a non-contrastive reading of (16)a and (17)a.

12. The string of words in (19) is identical to (8)c in 3.2.0.

13. Another empirical problem is the possibility of having comment modifiers to the right of all other material (thus including the comment) in a sentence (what was called "dislocation" in chapter 3). This will also be discussed further in chapter 5, esp. in 5.4.1.

14. One might, speculating, suppose that the fact that accents are lacking in writing leads to a relatively strict usage of this possible function of word order, in the sense that the position of a comment modifier is always taken as maximally informative with respect to the intended information structure, so that this position would in fact announce "this is where the comment begins". I cannot fail to get such an impression from the written data that I looked at when searching for relevant observations for the present study, but perhaps the hypothesis on the function of word order to be developed in this study (specifically, in chapter 5) will in itself be sufficient to explain this.

15. Not all types of sentences allow for the interpretation discussed here just as easily; generally speaking, it involves relatively simple, specifically intransitive sentences. The background of this situation will be discussed in 4.3 and 6.1.5.

16. Thus, the 'point' of such a sentence, its relevance in the speech situation, is assumed to be immediately clear, with no need to identify particular elements in the situation to which it applies. A typical reason for uttering (23), for example, is to explain the speaker's coming home half an hour after having left for school, while (24), if taken non-contrastively, suggests that the hearer should do something about the situation now (cf. Blom & Daalder (1977: 86/87)).

17. I would also want to subscribe to the view expressed by Fuchs immediately after the cited text: "In fact, matters of discourse structure are more delicate than these formulations would suggest: accent patterns are signs a speaker chooses to convey intended meanings, not mechanically imposed by the nature of the context. A speaker will often establish a 'center of attention', a question of immediate concern' by the very choice of accentuation. For present purposes, however, the formulation can stand, I hope.". Cf. also Keijsper (1982), for a clear exposition of this point.

18. Actually, Jakobson (1971) uses the term "narrated event" (and also "speech event"); we will follow Dik (1978: 32ff.) and use the term "state of affairs" for the apparently wide sense of "event" intended by Jakobson (in terms of Dik: "anything that can be the case in some world") and we will reserve the term "event" for those states of affairs that involve a change of some kind (so-called dynamic states of affairs, again in Dik's terms). And in order to avoid the conclusion that we are only talking about declarative sentences, we will be talking of "evoked states of affairs" rather than "narrated states of affairs". We will also use the term "speech situation" for what Jakobson calls "speech event".

19. An 'exception', indicating that 'third' person pronouns are the

'least' marking members of the pronominal system, is a case like Willen zij die alle vragen beantwoord hebben, de zaal verlaten? ("Would those who have answered all questions please leave the room?"), directed at an audience in an exam-situation, for example; cf. Waugh (1982: 306).

20. I take no stand here on the question whether so-called 'reduced', or 'clitic', pronouns (with -ie as the form for third, sometimes also second person, and with a schwa as the vocalic segment in other cases) are actually unaccented personal pronouns or constitute a separate category.

21. Since the observation is the same for Dutch and for English, I give Keijsper's example, which is in English.

22. Another possibility is that the last accent precedes the comment modifier, but that always leads to a contrastive interpretation, so I leave it out of consideration here. This fact will, however, be of some importance in the analysis to be proposed in chapter 5.

23. Bosch (1983: 96-99) formulates some insights about the relation between the position of accent and the 'marked' or 'unmarked' character of the contents of a sentence with respect to 'normal' expectations which show considerable similarity to what we will be suggesting in the text to follow.

24. Guéron actually uses the term "focus" for what is called comment here.

25. That Guéron nevertheless tries to motivate the existence of such a rule alongside her interpretive rule of "linking to focus" (cf. esp. Guéron (1980)) is understandable, I think, from the point of view of what may count as genuinely explanatory concepts in the generative research programme: if some word order variation is not an instance of 'movement', then it is not a 'core phenomenon' and a student of such phenomena is not really contributing to the development of the theory of grammar (cf. 2.4.1).

26. It is probably useful to stress here that this does not mean that a relative clause should be taken as a means of asserting something new about its referent. As with any verb-final clause, the information it provides is presented as one piece, the applicability of which may very well have been established explicitly in the previous discourse (cf. the general view in the literature that 'subordinate' clauses are in some sense 'presuppositional', relate to the 'background' of a discourse, etc.); what is introduced into the discourse by means of a relative clause in the comment is the notion of the referent to which this piece of information applies.

27. For example, Overdiep (1937: 295), Mattens (1970), Bakker (1968: 71); but see Balk (1963: 113-115), Bakker (1971), Kirsner (1979: ch. III), among others, for views differing from identifying the indefinite article with "singularity" in various degrees.

28. Since the alphabet contains no special letter corresponding to the schwa, the difference is generally indicated in written Dutch by the presence of accentuation marks when the numeral is meant. Thus, the written form "één" represents the numeral ("[e.n]"), and it does not necessarily imply that the word is to be pronounced with a pitch accent, while the

written form "een" generally is meant to represent the article ("[@n]").

29. In fact, one might try to argue that [e.n] and [@n] are only different manifestations of the same abstract form, i.e. that they do not belong to different form classes (cf. 1.1), in view of the fact that there is only a 'stylistic' difference between the following two sentences (the first sounding 'exaggerated'):

- (1) Er is [e.n] vliegtuig gezien
 There is a plane seen
 (11) Er is [@n] vliegtuig gezien
 There is a plane seen
 "There has been a plane noticed"

It may equally well be argued, however, that the source of this 'stylistic' difference is precisely the difference in meaning, which does not make a big difference in practice in this specific case, because, (a), the two meanings still have similar implications, and (b), what is actually contrasted to something else (or to the background in general) in (1) is the idea represented by the head noun; the latter is accented and the numeral is not, so the idea of some alternative to one, hence the idea of counting as such ("there could have been another number of planes than one, but the actual number is one"), need not be evoked. On the other hand, the interpretations of the next two sentences are radically different:

- (111) Er is [e.n] vliegtuig gezien
 There is one plane seen
 "One plane was seen"
 (iv) Er is [@n] vliegtuig gezien
 There is a plane seen
 "Some plane was seen"

Sentence (111) means that the number of planes spotted is one, and nothing but one, but the interpretation of (iv) is far less straightforward; it reports the spotting of some plane, but suggests strong doubts whether it was the one to be expected. The only formal difference between these two sentences is in the vowels of the accented words, hence this must be the source of the difference between the interpretations. I will therefore continue to assume that "[e.n]" and "[@n]" represent different form classes, i.e. that they have different meanings.

30. Therefore, the proposal that the meaning of [@n] is to indicate "countability" (cf. Bakker (1971: 341, note 1)) is more in line with what I will be proposing than the idea that the meaning of [@n] is "singular". But Bakker limits his discussion to the use of count nouns (1971: 338), and the proposal cannot in my opinion be carried over directly to all uses of the indefinite article (for the reasons indicated in this section with respect to proposals that [@n] means "differentiation" or something like that); consequently it does not, as such, provide a formulation of the general meaning of [@n].

31. D.M. Bakker pointed out to me that this view also provides an immediate explanation for the fact that the 'ambiguity' between specific and non-specific is only present in singular NP's if there is an indefinite article. Thus Ik was op zoek naar een mooi boek ("I was looking for a nice book") is interpretable in both ways, but Ik was op zoek naar goed zand ("I

was looking for good sand") is not, although the latter is traditionally also considered 'indefinite'.

32. Understandably, only the numeral which means "one" gave rise to this development: 'counting up to one' is the limiting case of counting, implying the presentation of a concept as instantiated, but not as instantiated several times.

33. The idea of "extension" as a feature of the meaning of the definite articles in Dutch is adopted from Van Schooneveld's idea that this is one of the general features for which grammatical categories may be marked; cf. Sangster (1982: esp. 98ff). However, it is applied here in a way not implied by (although, I think, not inconsistent with) Sangster's treatment.

34. For the general idea of this notion of the 'primary' use of an unmarked category standing in opposition to a marked category, see Jakobson (1966: 60/61): this, as he calls it, "Grundbedeutung" ("basic meaning") of an unmarked category is the negation of the marking provided by the other member of the opposition, while the "Gesamtbedeutung" ("general meaning") involves only the absence of that marking. See also Sangster (1982: 70-75), Waugh (1982: 303ff).

35. Consequently, there are important differences between the ways article-less plural and non-plural NPs function, although neither is explicitly marked for instantiation; the article-less non-plural NPs, providing no indication whatsoever about both 'instantiation' and 'extended relevance', are the means par excellence for evoking an idea involving the meaning of the noun as such, without any suggestion of possibly relevant other concepts (properties). See especially Mattens (1970: section 3.3) for a demonstration that this is a general function of all types of bare nouns, not just of so-called mass-nouns.

36. Note that the idea that [@n] means "singular" would have to hold that such combinations could never occur. To the extent that the discussion to follow is convincing, it will therefore provide additional support for the rejection of this idea at the beginning of this section.

37. Similar observations, described in similar terms, are made in Hermkens (1969: 120). Hermkens puts the question of which element in such constructions is the 'head' in the right perspective, by in effect taking the position that it is the number indication in the finite verb that determines the answer in each case, instead of assuming that the same part is always the head, independently of actual use in an utterance. The discussion of 'agreement-mistakes' in Jordens (1983, for example 130-140) also strongly suggests that the process of 'number-agreement' should be viewed as constituting an independent sign of its own, with a specific function in the language, rather than as the result of some 'rule'. Cf. also 6.1.4.

38. There are more questions to be answered, in principle, with respect to constructions like (55); for example, why is it that the 'subordinate' clause is always introduced by dat ("that")? Note that the combination of [@n] with a plural noun is on a par with the combination of [@n] with a 'mass noun' (of a type that does not have plural forms), like Een melk dat er lag! (lit.: "A milk that there lay!"). Note also that the finite verb in the subordinate clause gets a plural marking if the main participant is

clearly understood as plural, supporting the idea that number indication in the finite verb is a sign on its own, and that [en] does not mean "singular" (in which case one would at least expect 'singular' and 'plural' number indication to be equally possible):

- (1) Een boeken dat er staan!
A books that there stand

Finally, this exclamatory construction is not restricted to combinations of [en] with plural noun, again indicating that this combination is compatible with the character of the construction, but does not (completely) determine this character; thus (11) and (111) are sentences of the same type:

- (11) Donker dat het was!
Dark that it was
(111) Speculeren dat die man doet!
Speculate that that man does

Cf. Bos (1963, esp. p. 191/2) for some discussion.

39. One of the reasons is probably the difference in meaning between singular and plural 'indefinite' NPs, as argued for in the previous section. In the latter case, involving the meaning "more than one", an upper boundary is left unspecified, while the interpretation as specific requires that the 'outer boundaries' of the set be somehow given. The meaning "instantiation", on the other hand, precisely suggests such boundaries, and it is therefore to be expected that the interpretation of specificity occurs more readily with singular than with plural 'indefinites'.

40. It might also be suggested - in view of cases like (56) - that an indefinite NP containing an indexical expression (relating to elements in the speech situation) would be used specifically rather than generically; but (1) is preferably interpreted generically, and there is no particular preference for one interpretation rather than the other in (11):

- (1) Hij zal een vriend van mij ongetwijfeld ontzien
He will a friend of me undoubtedly respect
"A friend of mine he will undoubtedly respect"
(11) Hij zal een vriend van me waarschijnlijk ontslaan
He will a friend of me probably fire
"He will probably fire a friend of mine"

As argued before, it is one of the advantages of the present analysis that the interpretive option of 'generic' vs. 'specific' does not have to be viewed as a systematic ambiguity of the sentences involved, let alone of the NPs and the indefinite article. The examples in (1) and (11) also suggest a difference between mij and me (the 'full' and the 'reduced' forms of the personal pronoun), in that (1) with mij replaced by me suggests a specific reading more strongly, and that the reverse replacement in (11) results in a preference for a generic reading.

41. I have summarized Kirsner's arguments very briefly here; we will return extensively to this point in chapter 6.

42. It is actually rather difficult to extract information like this from

Nieuwborg's book, for a number of reasons. Although the book is about the distribution of subjects and direct objects, these are not correlated. Furthermore, the figures presented are percentages of main clauses, but I could not find a reference to the total number of main clauses investigated. The introduction of chapter one (p. 1) reports that a total number of 5000 'periods' has been analyzed, a period being defined as the text between two full stops (or equivalents), and containing one or more main clauses. On the assumption that a finite clause with a direct object will always have a subject, too, the percentage of 'transitive' clauses could be calculated as about 37 (there are 5215 main clauses with a subject NP (p. 68), and 1913 main clauses with a direct object NP (p. 297, reflexive pronouns not counted as direct objects)). This is a rather high percentage, possibly due in part to the narrative nature of the texts, but in any case also due to the fact that ellipsis in coordinate constructions has not been resolved; if the subject has been 'left out' in the second of two coordinated clauses, the clause is not counted as an instance of a 'subject plus finite verb' construction, and subjects are undoubtedly 'left out' more often in coordinations than objects (Nieuwborg does not report the frequency of ellipsis in his material). This is the reason for mentioning "about 30 %" in the text. The 62 cases of adverbials preceding subjects are the examples presented in the following sections: in 2.1.2.2, sections 1, 8 and 10 through 15; 2.1.3.3.3; in 2.2.2.1, sections 3 through 7; in 2.2.2.2, sections 4 through 6; 2.3.2.1; in 2.3.2.2, sections 5 through 8. Doubly mentioned examples were counted once. Note that the reflexive form zich was not counted as a direct object in order to have the set of data comparable to the other countings mentioned in this section, but especially because the reflexive characterizes a specific type of construction in itself rather than a transitive one (cf. Pauw (1984)). This can be confirmed from the same data, incidentally: the number of reflexives and of direct objects rates as 1:10 in the entire corpus (Nieuwborg (1968: 297)), but as 3:1 in these 62 clauses.

43. Since the codes in this corpus do not provide so-called syntactic, but 'only' morphological information, a large part of this search had in fact to be done manually; the computer search was for subordinating conjunctions, relative and interrogative adverbs and finite verb forms, followed immediately by something that might indicate the left-hand side of a non-subject, i.e. an element from the following set: adverb, 'adverbially used adjective', preposition, oblique or reflexive pronoun, and subordinating conjunction. Subsequently, a manual selection was made to find the clauses that did indeed have one or more adverbials followed by the subject in the middle part (for example, discarding impersonal constructions with no subject at all, and especially cases of subjects preceding finite verbs, of course). The remaining set contained 80 clauses. Unfortunately, it was not possible in this tentative search to make a comparison with the average percentage of clauses containing a direct object NP: the percentage of 'transitively used verbs' is high (almost 39%; cf. Uit den Boogaart (1975: 465, table 7)), but it does not provide an indication for the number of transitive predicates for mainly two reasons: (a) the percentage is calculated with respect to the total number of verbs in the corpus, while one clause may contain more than one verb (a number of auxiliaries besides the main verb); and (b) it includes passive participles.

44. In the examples presented by Thompson, the similarity is even bigger, since in all of them the idea of some 'property concept' itself is also

introduced into the discourse with utterances in which the adjective functions predicatively (the difference being that in the latter case the referent whose property is predicated is already established in the previous conversation, independently of the presently predicated property). This does not imply (and it is not intended to imply) that these two functions exhaust the possibilities of using an adjective (i.e. that they would constitute the meaning of adjectives); especially in communications not involving 'spontaneous conversation', the functions of adjectives may cover a far broader range, as Thompson indicates.

45. It is perhaps worth noting explicitly that this implies that the general tendency for predicate modifiers to be closer to the verb than so-called sentence modifiers cannot be reduced completely to their qualifying the verb rather than the sentence (cf. Koster (1974: 604/605)). In (79)-(81), the leftmost adverbial phrases qualify the processes denoted by the verbs just as much as they would if they were to the right. The difference is that in (79)-(81) the ideas evoked by the modifiers and the verbs are presented as independently accessible pieces of information, since one is presented as 'given' and the other as 'new'. See 5.3.1 for further discussion.

Notes to chapter 5

1. Parallel to this observation one would also expect, in view of a number of observations in 4.3, that the number of direct objects in main clauses with an initial adverbial would be relatively higher than in subordinate clauses with an adverbial preceding the subject. Some counting in Hermans' *Het behouden huis* indicates that this may indeed be the case: of the main clauses with an initial adverbial, about 30 % contain a direct object NP, which is equal to the average of the entire novella, and contrasts with the 0 % in the relevant subordinate clauses.

2. This suggestion is also to be found in the literature; for Dutch, in Wiers & van Noort (1978: 202), for example.

3. Cf. the statement by Blom & Daalder (1977: 87, 91) that sentences with (in their terminology) presupposed material following the "focus" are interpreted in such a way that the ideas presented as given have been introduced verbally, and are not considered to be part of common background knowledge that has not been put into words. Cf. also Bolinger (1965a: 285/6) and (1965b: 315).

4. In that case it may be difficult to interpret some specific adverbial as presenting independently perceivable information. If the process evoked by a verb essentially consists of effecting a change in the position of an entity in space, a place adverbial will normally be taken as indicating the relevant position, and consequently as not (at the speech moment) perceivable independently of the process involved; this may be an indication of what is involved in the idea that 'directional' adverbials can hardly be 'separated' from the verbs in sentences indicating a change of position, as in (1), which contrasts with (11):

- (1)a De bond heeft de finale naar zondag verplaatst
The union has the finale to sunday shifted
- b ?? De bond heeft naar zondag de finale verplaatst
The union has to sunday the finale shifted
- (11)a De bond heeft de finale voor zondag gepland
The union has the finale for sunday planned
- b De bond heeft voor zondag de finale gepland
The union has for sunday the finale planned

But I have no further suggestions on these matters at the moment.

5. Since this chapter is concerned with information structure, the phrase "piece of information" is to be understood here as referring to elements (or clusters of elements) that have a function in that respect. Ultimately, the function of word order will be seen to be of a more general and abstract nature (cf. chapter 6, as well as 7.1).

6. Bolinger's (1965b) suggestions about the use of word order in writing are based on precisely this idea.

7. If the first elements of so-called "separable composite verbs", for example terug in terugkeren ("return", "go/come back"), are indeed analyzed as parts of lexical elements of the category Verb, an occurrence of such an element could also be considered an occurrence of a "manifestation of the category Verb", hence as possibly constituting the right hand boundary of the middle part.

8. The intonation contour indicated in (34) is not the only one possible with this sequence of elements, but what is relevant here is that, among others, this contour is possible.

9. For the same reason, subordinate clauses (of all types) may occur to the right of a Verb-third sign: they are always introduced by an element (a subordinating conjunction, relative pronoun or adverb, or interrogative pronoun or adverb) indicating their function within their immediate context.

10. As suggested in the text above, the interpretation of the process to which a finite verb in first or second position is related may be delayed; thus (1) and (11) may both have the idiomatic reading:

- (1) Gooide hij er met zijn pet naar?
Threw he there with his cap at?
- (11) Hij gooide er met zijn pet naar
He threw there with his cap at

Phenomena of this type are accounted for in transformational descriptions by the assumption of one or more rules 'moving' a verb from a position final in the clause (where its interpretation is assumed to be determined) to the first or the second position.

11. We see then that it is quite correct from a descriptive point of view to consider a dislocated constituent as not belonging to the sentence 'proper' within a transformational framework, although such a move poses problems at another level of discussion; cf. 3.2.1.

12. The only place I know of in the literature in which essentially the same observations have been made before is Stutterheim (1970: 276-277).

13. Utterances with a 'dislocated' adverbial may of course be contrastive for reasons independent of the presence or absence of an adverbial.

14. Cf. the characterization by Daalder (1983: 66/67) of clauses with the finite verb in final position as performing "some specific and knowable function in the body of knowledge and experience" (emphasis in original), with the introducing elements indicating "which kind of function the [clause] is performing".

Notes to chapter 6

1. Since we are concerned in this chapter with the relation between the interpretation and the position of bare NPs, it is not a part of our problem whether this 'pure indirect object' really constitutes one category together with a certain class of prepositional phrases that are also labelled "indirect objects" in traditional grammars. However, there is convincing evidence, in my opinion, that this is not the case; cf. Janssen (1976a), Kirsner, Verhagen & Willemsen (1985), and references cited there.

2. Cf. Overdiep (1937: 497), Rijpma e.a. (1969: 236, 252), Paardekooper (1978: 44/5, 634). Cf. also ANS (1984: 989).

3. Of the grammarians mentioned in note 2, only Overdiep (1937) takes a relatively clear stand on this issue; in general, the authors restrict themselves to describing the 'rule', and sometimes some exceptions to it, without raising the question of its nature. Overdiep's position, formulated in opposition to Jespersen (1924), is that in this case the word order is to be viewed as a syntactic type of grammatical form on a par with a morphological case form signalling 'dative' (Overdiep (1937: 71)).

4. For example, Janssen (1976b), Koster (1978), den Besten (1981).

5. Cf. also the terminology in Overdiep (1937), for example p. 497, where the ordering of "dative objects" and "accusative objects" relative to each other is discussed, in precisely these terms; and more recently, within a generative framework, Den Besten (1981).

6. Depending on the readiness to use this term in an abstract or metaphorical sense, some grammarians use it as equivalent to "indirect object", and others as an indication of the main sub-type of indirect objects, besides which other sub-types are distinguished, for example a so-called "belanghebbend voorwerp" (literally: "interested object"). Since, as the ANS (1984: 986) indicates, such sub-types are not to be differentiated in terms of their (possible) positions in the sentence, the question of the usefulness or correctness of such sub-divisions does not concern us, in view of our present purpose: with respect to word order, we are more interested in the question what indirect objects might have in common that could make sense out of the observed 'restrictions' on their position relative to other NPs. For the same reason, we will not be concerned here with differentiation of indirect objects in terms of roles

like 'recipient', 'benefactive', and so on.

7. Note that these are all relative values: the same case-form may indicate different (absolute) degrees of activity in different contexts, but the dative, for example, will always indicate a lesser degree of activity than the nominative within the same sentence. Note, incidentally, that Zubin's terminology is somewhat different from the one we employ here (in order to indicate the resemblance with Dutch traditional grammar); he uses the terms "high", "mid", and "low degree of contribution", respectively.

8. This problem might be overcome if the characterization of the Nominative ("Subject" in Dutch) as indicating the 'highest participant' were to be construed as an inference in a particular type of sentence rather than as a semantic feature of this case-form. Something of this kind seems to be suggested by Huffman (1983: 289, note 6) with respect to the relation between elements traditionally called "subjects" and the dative and accusative pronouns in French. Roughly, one possible line of reasoning would be that the Nominative actually signifies only "Focus of speaker's attention", but that without indications to the contrary, this will generally be taken to be the most active participant; the passive could then be analyzed as involving a meaning that explicitly provides such an indication to the contrary. However, Zubin (1979: 474, note 3) explicitly states that both "Focus" (in the above sense) and "Highest degree of contribution" are signalled by the Nominative.

9. "Wie der A[kkusativ] so auch der D[ativ] geben die betroffenen des bezeichneten Gegenstandes von einer Handlung an". "Der Randkasus [i.e., instrumental or dative] gibt an, dass das bezügliche Nomen im gesamten Bedeutungsgehalte der Aussage eine periphere Stellung einnimmt, wogegen ein Vollkasus [i.e., nominative or accusative] nicht angibt, um welche Stellung es sich handelt". Jakobson (1966: 68).

10. Thus one can find characterizations of the dative as indicating an object as not being totally 'comprised' by the evoked state of affairs; for example, Sachmatov, cited by Jakobson (1966: 73), and Fourquet (1959: 140).

11. I know of only one place in the literature that might be interpreted as stating this observation: Overdiep (1937: 396); cf. also Verhagen (1980: 139, 140)).

12. An additional requirement for the ambiguity of (8) is that both NPs precede the adjective; thus the sequence De buurman heeft dronken zijn gasten naar huis gebracht only has the reading in which the man next door was drunk. I think that this can be explained on the basis of the proposed general function of word order, too, in roughly the following way: the idea evoked by dronken ("drunk") is presented as perceivable independently of the idea evoked by zijn gasten ("his guests"), hence it can only relate to de buurman ("the neighbour"). However, I will not elaborate this idea any further here.

13. So it is understandable that traditional grammars state that such sentence elements have a "double character" (cf. Den Hertog (1972: 120)), as both adverbial and adjectival. Overdiep (1937) states that the adverbial function is felt to be primary in this usage of adjectives (p. 414) and that the "double function" is best preserved if the adjective relates to an

object (p. 415). Kraak & Klooster (1968: 205) also characterize the elements involved as having "a twofold modifying function".

14. Both remarks also apply to the separate category of "experiencer objects" that is distinguished in the ANS (1984: 856-857). Consider (1):

- (1) Dat overkwam hem altijd 's nachts
That happened-to him always at night
"That always happened to him at night"

The idea that the referent of "him" is presented as affected by the process described in the sentence, but not as completely controlled by it straightforwardly applies to (1). An adjectival predicative adjunct is hardly possible:

- (11) ??Dat overkwam hem altijd dronken
That happened-to him always drunk

15. The specific descriptive issue to which García applies the argument is the question why, in Old English, non-predicative nominatives generally precede other NPs, i.e. oblique cases and predicative nominatives.

16. Thus amended, this idea of 'ignorance diminishing' as immediately related to linear arrangement might be said to reformulate the general idea behind Bolinger's concept of "linear modification" (cf. Bolinger (1965a: 281)).

17. Accentuation may provide such an "other indication", in view of the difference between the following two sentences, which differ only in the position of the last accent:

- (1) Helaas lijkt Karel Piet de beste kandidaat
Unfortunately seems Karel Piet the best candidate
"Unfortunately, Karel seems to Piet to be the best candidate"
(11) Helaas lijkt Karel Piet de beste kandidaat
Unfortunately seems Karel Piet the best candidate
[same as (1), but with Piet interpreted contrastively, or:]
"To Karel, Piet seems to be the best candidate, unfortunately"

One possible suggestion would be that with the last accent on Piet, as in (11), there is a possibility of taking "Piet" and "the best candidate" as one piece of information (the comment), which would lead to interpreting "Piet" as the 'argument' of the predicate "the best candidate". But I am not sure that this suggestion has any merits at all. Perhaps the fact that the above sentences contain a predicative construction is also relevant, for I do not think that accentuation on its own can make a difference in the case of the examples given in the text.

18. The following exposition about so-called Agreement is partly based on an idea from Saskia Daalder.

19. Cf. the opinion of Paardekooper (1977: 57/8) that the finite verb in Dutch generally indicates number and only very rarely person.

20. A slightly more abstract formulation like "The referent of the 'subject' is not immediately perceived as a participant in the speech

situation" could help to make sense out of the difference between addressing a hearer politely and addressing him 'not explicitly' politely: in such a view, the speaker suggests a noticeable 'distance' between himself and the addressee by indicating explicitly that he is not perceiving the latter only as the addressee in the present speech situation, which is the effect of the use of a 'third person' marking for the addressee. But in view of the relative marginality of person marking, the possibility is not to be excluded that this is a relic from the history of the forms, and an arbitrary element (to be learned as such) from a strictly synchronic point of view. The same more abstract formulation could also be supposed to provide a (partial) explanation of the fact that the distinction is not made in the 'past' tenses: these present the entire evoked state of affairs, hence its participants, as not immediately perceivable in the speech situation, so that person marking would not provide much useful additional information.

21. The same relation holds in active sentences between the direct and the indirect object: part of the source of the influence that the referent of the indirect object is undergoing is in the direct object, which is the background of the idea that it is only 'indirectly' influenced by the referent of the agent: the latter influences the former 'via' (the referent of) the direct object.

22. Thus this argument 'reproduces', for one language in particular, Keenan's general conclusion "that [...] 'subject' does not represent a single dimension of linguistic reality" (Keenan (1976: 312)).

23. This idea will have to be worked out, and perhaps adapted, in view of examples like those in (i) and (ii):

- (i) Jan stopte urenlang een verkeerde disk in zijn computer
 Jan put hours-long a wrong disk into his computer
 "Jan put a wrong disk into his computer for hours"
- (ii) Jan en Piet gaven de oud-voorzitter een horloge
 Jan and Piet gave the past-chairman a watch
 "Jan and Piet gave the past chairman a watch"

Sentence (i) evokes the idea of Jan repeatedly putting a wrong disk into his computer. This is one of the reasons for the formulation in the text that (plural) number marking evokes the idea of more than one manifestation of the process named by the verb: the idea of repetition is an aspect of the interpretation of the entire sentence. Furthermore, although Jan may perform, in some sense, a number of acts in a real-world situation that (i) might relate to, the idea of repetition precisely involves the presentation of the same process occurring over and over again. Sentence (ii), on the other hand, allows for an interpretation in which Jan and Piet together give one watch to the past chairman, which might be construed as constituting a problem for the proposal in the text in that there is in fact only one manifestation of the process of giving although the verb is marked plural. At the moment, I am not convinced that this is in fact an accurate description of the interpretation of (ii) but I have no suggestions to offer at the moment, as far as an alternative description is concerned. Cf. also Wiersema (1973) for a number of relevant observations, suggesting that number-marking on the verb indicates perceived plurality of the relevant participant rather than plurality of the process (etc.) named by the verb (contrary to what is suggested in the text) and that its usage

is furthermore at least partly 'conventional' rather than 'motivated' in all cases.

24. Cf. Kirsner (1979: 41) for another argument that the number indication provided by the finite verb should be considered a sign with a meaning of its own.

25. The formulation here differs somewhat from the one given by Pauw, in order to make it applicable to a wider set of sentences: as will become clear from the exposition to follow, we are also extending Pauw's proposal.

26. Note that the phenomena to be discussed not only show that what is called "indirect object preposing" by Koster (1978) and others working in the same framework is in fact not limited to 'indirect objects', but also that it is not limited to verbs that take the auxiliary zijn ("to be") rather than hebben ("to have") in the perfect tenses. Cf. Balk (1979: 12, note 18), V.d. Hoek (1980: 134/5, note 12), and Blom (1982: 228) for similar remarks.

27. Note that this is not at all to be taken as a regrettable but unavoidable limitation; on the contrary, this effect may in specific instances very well constitute the main 'point' of choosing a transitive presentation of a situation.

28. Example (47) involves what we have called a relational adverb, which we included in the class of comment modifiers in 5.2.1.

29. The countings of adverbials preceding subjects, reported in 4.3 (cf. also notes 42 and 43 to chapter 4), in fact involved adverbials of all kinds, not specifically 'sentence adverbials'. This would hardly have been possible, as a matter of fact, because the information in the 'data-bases' involved does not contain such a distinction (and rightly so, we may now add).

30. More generally, the data in Nieuwborg (1968) suggest that it is not at all 'exceptional' that a subject is preceded by something else in the middle part of clauses. Calculating the number of times that the subject was actually preceded by something else as a percentage of the number of times this could have been the case (so excluding sentences where the subject is not in the middle part, as well as those where it is the only element in the middle part), the subject is preceded by something else in 16.8 % of the cases when it is a definite NP, and in 56.9 % (the majority) of the cases when it is an indefinite NP (Nieuwborg (1968: 215)).

31. Hopper & Thompson (1980), who also locate the relevance of the notion of transitivity at the level of the interpretation of the entire sentence and its relation to the 'surrounding' discourse, speak about such cases as being "less transitive" than cases involving NPs referring to actual participants. Cf. also Kirsner, Verhagen & Willemsen (1985) for an argument that the same approach to transitivity is relevant in other parts of the grammar of Dutch too.

Note to chapter 7

1. A general feature both of 'adjectives' and of 'adverbs' seems to be that they present something as not exhaustively characterized by the meaning of the word (so that they generally occur together with an expression of another category - noun or verb). In fact, no linguistic expression is able to provide a really exhaustive characterization of any referent, of course, but the difference between, for example, nouns and adjectives seems to be that the former simply leave the matter of exhaustiveness undecided; their role is no more than to provide a name for something, so that they may be used as a means of merely 'picking out' an entity, whether the description actually applies to it or not (cf. the so-called "referential" use of noun phrases, as opposed to the "attributive" use, discussed in Donnellan (1966)). I have no suggestions to offer as to whether the distinction between 'adjectives' and 'adverbs' is categorial in nature, with a lot of word-forms occurring in both categories, or that it refers to a difference in usage of elements of one category, with some elements allowing for only one usage; hence the formulation "and/or" in the text.

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8

Stellingen

1

Het inzicht dat niet op grond van een konfrontatie met de zogeheten 'werkelijkheid' beslist kan worden tussen taalkundige analyses, moet niet leiden tot de gedachte dat analyses in geen enkele betekenis van de term 'empirische inhoud' zouden hebben en dat alle verschillen tussen analyses herleidbaar zijn tot 'ideologische' verschillen; dat zou er namelijk ten onrechte van uitgaan dat er een mechanisch verband bestaat tussen uitgangspunten en analyses, een denkfout van dezelfde soort als die waarbij een mechanisch verband tussen analyse en 'objektieve werkelijkheid' verondersteld wordt. De toepassing ad hoc van 'uitgangspunten' op een 'object van analyse' behelst tegelijk interpretatie van het 'object' en van de 'uitgangspunten'.

2

Het ontbreken van een mechanisch verband tussen de uitgangspunten van een taalkundige benadering en de inhoud en kwaliteit van geleverde beschrijvingen noopt tot de erkenning van (op zijn minst) de mogelijkheid dat binnen uiteenlopende benaderingen bruikbare beschrijvingen geproduceerd worden. Hieraan dienen consequenties te worden verbonden voor de opzet van een opleiding tot taalkundig onderzoeker.

3

Teneinde af te raken van het idee dat er op een eenvoudige manier gesproken zou kunnen worden over relaties tussen een taaluiting en 'de' situatie waarin deze optreedt, en wel met name van het idee dat zo'n situatie in enig opzicht voor vorm en inhoud van de uiting bepalend zou zijn, kan het nuttig zijn kennis te nemen van inzichten omtrent de menselijke (bijvoorbeeld visuele) perceptie.

4

Het belang van taalkundige modellen voor onderzoek naar de mogelijkheden van taalverwerkende systemen, bijv. systemen voor (semi-)automatisch vertalen, valt in het niet bij het belang van bruikbare, voor de computer toegankelijke, semantische beschrijvingen van woorden, morfemen en het - in een bepaalde volgorde - verbinden daarvan.

5

De neiging hier te lande om "theoretische taalkunde" gelijk te stellen met "konstruktie van een taalkundig model" is mede aanleiding voor de verwarrende situatie dat sommige theoretisch taalkundigen zichzelf afficheren als beoefenaren van 'deskriptieve' taalkunde, daarmee ten onrechte een a-theoretisch in plaats van een ander theoretisch standpunt suggererend.

6

Onderzoek aan teksten met behulp van de computer is een zeer effectieve methode om mensen ervan te overtuigen dat het idee van vorm zonder betekenis taalkundig gezien zinloos is.

De stellingname dat alle internationaal gangbare benaderingen in de taalkunde generatieve systemen vooronderstellen of behelzen (vgl. H.C. van Riemsdijk - in een schrijven mede namens anderen - aan de Minister van O&W op 2 december 1985) lijkt op het eerste gezicht blijk te geven van òf een schier grenzeloze verruiming van de extensie van het begrip "generatief", òf een nogal idiosynkratische opvatting van "gangbaar", òf een beperking van de internationale taalkundige wereld tot enkele regio's in het Noord-Oosten van de Verenigde Staten, Frankrijk, Nederland en Italië (1). Bij nadere beschouwing kan echter vastgesteld worden dat deze drie implicaties ook tegelijk aanwezig kunnen zijn.

(1) Vgl. N. Chomsky 1982, On the generative enterprise: 48/9. Dordrecht.

Het gebruik in personeelsadvertenties van de verbogen vorm van het tegenwoordig deelwoord als sexe-neutrale uitdrukking (vorm "zieken-verzorgende" i.p.v. "ziekenverzorg(st)er") wekt, gezien de betekenis van de deelwoordvorm, licht de suggestie dat men niet op zoek is naar een (volledig gekwalificeerde) beroepskracht, of ook wel dat men op zoek is naar een persoon die de betreffende positie als nevenfunctie gaat vervullen. Aangezien in de huidige maatschappelijke omstandigheden vrouwen gemiddeld minder over officiële kwalifikaties beschikken en meer in deeltijd werken, is het zeer de vraag of dit deelwoordgebruik echt zo non-diskriminatoire is als kennelijk de bedoeling is.

Een werkelijk algemene doorvoering van arbeidsduurverkortings vereist - uitgaande van een minstens gelijk blijvende beschikbaarheid van goederen en diensten - een gemiddeld hoger opleidingsnivo van de beroepsbevolking en een fundamentele reorganisatie van de arbeidsverhoudingen in bedrijven en instellingen omdat het structureel noodzakelijk wordt dat verschillende mensen op verschillende tijdstippen dezelfde functies - ook zogeheten leidinggevende - vervullen. Het aan de orde stellen van een dergelijke democratisering van opleiding en zeggenschap, met de eraan verbonden consequentie van 'nivellering' van de inkomensverhoudingen binnen de beroepsbevolking, is dus noodzakelijk als de vakbeweging wil voorkomen dat de strijd voor arbeidsduurverkortings uitdraait op een splitsing van de beroepsbevolking in delen met een verschillende maximale arbeidsduur en een daaruit voortvloeiende vergroting van inkomensverschillen.

Stellingen behorend bij het proefschrift van A. Verhagen, Linguistic Theory and the Function of Word Order in Dutch, te verdedigen op 20 februari 1986 (Vrije Universiteit Amsterdam).