

R E P O R T R E S U M E S

ED 019 650

AL 000 961

UNIVERSE-SCOPE RELATIONS AND MANDARIN NOUN PHRASES.

BY- CHENG, ROBERT L.

CALIFORNIA UNIV., BERKELEY, PHONOLOGY LABORATORY

REPORT NUMBER POLA-2-3

PUB DATE

NOV 67

NATIONAL SCIENCE FOUNDATION, WASHINGTON, D.C.

REPORT NUMBER GS-1430

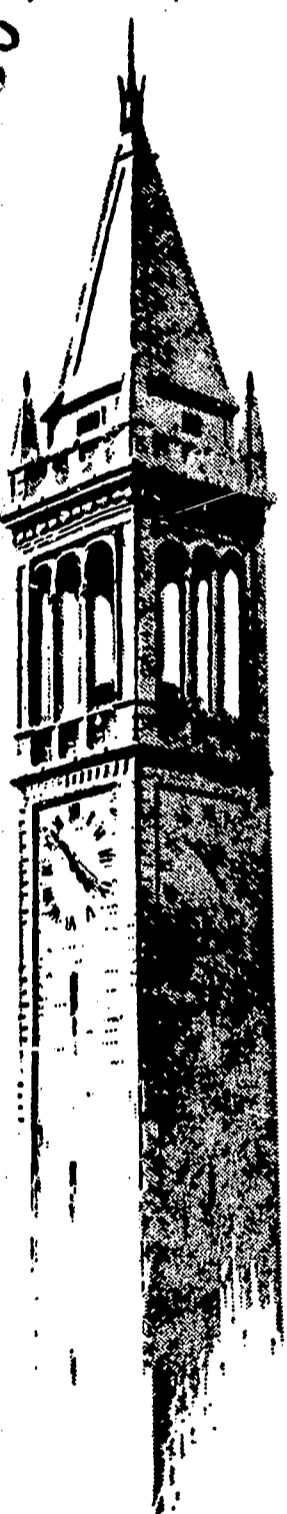
EDRS PRICE MF-\$0.75 HC-\$7.48 185P.

DESCRIPTORS- *MANDARIN CHINESE, *NOMINALS, *LANGUAGE RESEARCH, DEEP STRUCTURE, SURFACE STRUCTURE, *SEMANTICS, DISCOURSE ANALYSIS, TRANSFORMATION GENERATIVE GRAMMAR, COMMUNICATION (THOUGHT TRANSFER),

THIS REPORT DISCUSSES HOW NOUNS AND THEIR ADJUNCTIVES ARE USED IN MANDARIN SENTENCES IN DENOTING THE RELATION BETWEEN SETS AND THEIR SUBSETS. LANGUAGE HAS SOME MEANS OF SPECIFYING SETS OF OBJECTS, ACTIONS, OR ABSTRACT UNITS IN VARIOUS WAYS, IN ORDER TO HAVE SUCCESSFUL COMMUNICATION. LANGUAGE DOES NOT BEAR THE ENTIRE BURDEN OF SPECIFYING A CERTAIN SET UNAMBIGUOUSLY, HOWEVER. NONLINGUISTIC CONTEXTS ALSO PLAY SOME PART IN DECIDING THE REFERENCE INTENDED BY LINGUISTIC EXPRESSION, AND WITHOUT THESE CONTEXTS, AMBIGUITIES MAY BE UNSOLVABLE. THE DEGREE OF RELIANCE ON NONLINGUISTIC CONTEXTS SEEMS TO VARY FROM ONE LANGUAGE TO ANOTHER, AND CHINESE SHOULD NOT BE REGARDED AS ONE OF THOSE WHICH HAVE A LOW DEGREE OF RELIANCE UPON LIFE CONTEXTS FOR UNIQUENESS OF REFERENCE. CHINESE TEXTS ARE NOT MORE AMBIGUOUS THAN THE TEXTS OF OTHER LANGUAGES. IF THEY ARE LONG, THEY ARE USUALLY AS CLEAR AS THOSE OF ANY OTHER LANGUAGE. RELIANCE ON NONLINGUISTIC CONTEXTS IS HEAVY ONLY WHEN A TEXT IS SHORT AND SENTENCES ARE AMBIGUOUS ONLY WHEN THEY ARE TAKEN FROM LONGER TEXTS. FOR THE PURPOSES OF THIS PRESENTATION, THE AUTHOR RECOGNIZES TWO KINDS OF MEANINGS--(1) ON THE DENOTATIVE LEVEL, IN WHICH THE NOTIONS OF THE ACTOR-OF, THE RECEIVER-OF, ACTION, TIME, PLACE, ETC., ARE RELEVANT, AND (2) ON THE DISCOURSE LEVEL, IN WHICH THE NOTIONS OF THE TOPIC-OF, THE COMMENT-OF, ETC., ARE RELEVANT. THIS IS A REVISED VERSION OF THE SIXTH CHAPTER OF THE AUTHOR'S DOCTORAL DISSERTATION ENTITLED "SOME ASPECTS OF MANDARIN SYNTAX," INDIANA UNIVERSITY, 1966. CORRESPONDENCE CONCERNING POLA MATTERS SHOULD BE ADDRESSED TO WILLIAM S-Y. WANG, DEPARTMENT OF LINGUISTICS, UNIVERSITY OF CALIFORNIA, BERKELEY, CALIFORNIA 94720. (AMM)

PHONOLOGY LABORATORY - DEPARTMENT OF LINGUISTICS
UNIVERSITY OF CALIFORNIA, BERKELEY

019650



Project On Linguistic Analysis

Reports. Second Series, **No. 3** November 1967
Pol2-2-3

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

~~William S. Y. Wang. Conjoining and Deletion in
Mandarin Syntax~~

✓ Robert L. Cheng. Universe-scope Relations and
Mandarin Noun Phrases

~~W1 W21~~

1-182

AL 000 961

Reproduction in whole or in part is permitted for any purpose of the United States Government.

The Project on Linguistic Analysis is supported in part by the National Science Foundation (Grant GS1430), the Office of Naval Research (Contract N00014-67-A-0114-0005), and the Air Force (Contract F30602-67-C-0347). It is administered through the Phonology Laboratory of the University of California at Berkeley, which has its office in 51 Dwinelle Hall (Telephone: 845-6000, Extension 1507).

Correspondence concerning POLA matters should be addressed to William S-Y. Wang, Department of Linguistics, University of California, Berkeley, California 94720

Universe-scope Relations and Mandarin Noun Phrases*

Robert L. Cheng

University of York

*The preparation of this study was supported in part by the National Science Foundation (Grant GS1430), and in part by the Air Force (Contract F30602-67-C-0347).

AL 000 961

INTRODUCTION

The purpose of this paper is to discuss how nouns and their adjunctives are used in Mandarin sentences in denoting the relation between sets and their subsets.¹

It is obvious that language has some means of specifying sets of objects, actions, or abstract units in various ways, in order to have successful communication. It seems, however, that language does not bear the entire burden of specifying a certain set unambiguously. Nonlinguistic contexts also play some part in deciding the reference intended by linguistic expression, and without these contexts, ambiguities may be unsolvable.

The degree of reliance on nonlinguistic contexts seems to vary from one language to another, and Chinese should not be regarded as one of those which have a low degree of reliance upon life contexts for uniqueness of reference. This does not mean that Chinese texts are more ambiguous than the texts of other languages. As a matter of fact, Chinese texts, if they are long, are usually as clear as those of any other language. Reliance on nonlinguistic contexts is heavy only when a text is short, and sentences are ambiguous only when they are taken from longer texts. This may be due to the fact that Chinese uses deletion more freely and frequently than most other

0

well-known languages. For example, the definite marked nà 'the' plus the classifier (M) ben in the following Chinese sentence is deletable, although some ambiguity will result (shu 'the book' or 'the books'), whereas the definite article the in the English translation can never be deleted.

1. (naben) shu ni dai lai le meiyou?
 the book you bring ASP NEG ASP
 'Did you bring the book?'

If language is frequently ambiguous in denoting a set of objects or abstract units, then we cannot expect it to be free of ambiguity in denoting the relationships between sets and their subsets. Moreover, the optional occurrence of some grammatical markers in the surface realization results in further ambiguity in identification of sets, as well as in identification of the relationship between sets. For example, the relationship between the two sets of objects denoted by the following two nominals can be understood in more than one way.

2. (a) nimen laoshi yinggai qu
 you PL teachers must go
 'You teachers should go.'
 'Your teacher(s) should go.'
- (b) nimen de laoshi yinggai qu
 'Your teacher(s) should go.'

The optional deletion of the genitive marker de under certain circumstances renders sentences such as 2 (a) ambiguous.

In sentences where grammatical markers denoting the relationship between sets and their subsets are absent, however, there are usually clues for the identification of sets and subsets.

3. (a) wo yijing duguo na baben shu (dangzhong) de
 I already read that 8 M book among
sanben le.

3 M

'I have already read three of the eight books.'

- (b) Na baben shu wo yijing duguo sanben le
 'As for the eight books, I have read three of
 them.'

The relation between na baben shu 'those eight books' and sanben 'three books' can be easily recognized, no matter whether the relational marker dangzhong 'among, within' appears in the sentence or not.

The domain of this study is not as clearcut as my delineation in the first sentence of this paper might suggest. First of all, we are not always sure whether the notions of whole and part, set and subset, or universe and scope are expressed in given sentences. For example, it is clear that the idea of

the set-subset relationship is present in (a) and (b) below, and not in (c) and (d). But we are not quite sure whether such an idea is contained in (e) and (f) or not.

4. (a) tushuguan li de shu ta xiang kankan naxie yong
 library in book he think see use
zhongwen xie de
 Chinese write

'He wants to see the books in the library that are written in Chinese.'

'Of the books in the library, he wants to see those written in Chinese.'

(b) ni yao ba zhongyao de shu dangzhong tiaochu
 you must important book among select
rongyi de xian du
 easy first read

'You have to choose among the important books and read the easy ones first.'

(c) wo xiang kankan tushuguan li de shu.

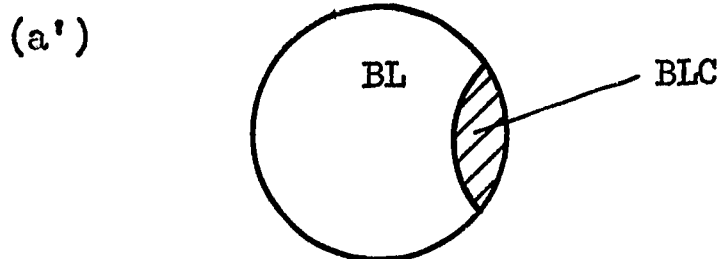
'I want to see the books in the library.'

(d) wo xiang kankan yong zhongwen xie de shu.

'I want to see books written in Chinese.'

(e) ni yao xian kan rongyi er zhongyao de shu
 you first read easy important book
 'You have to read easy and important books first.'

(f) women xiang kankan tushuguan li, yong zhongwen
xie de shu.
 'We want to see the books that are in the library
 and written in Chinese.'



Let BL = tushuguan li de shu 'books in the library'

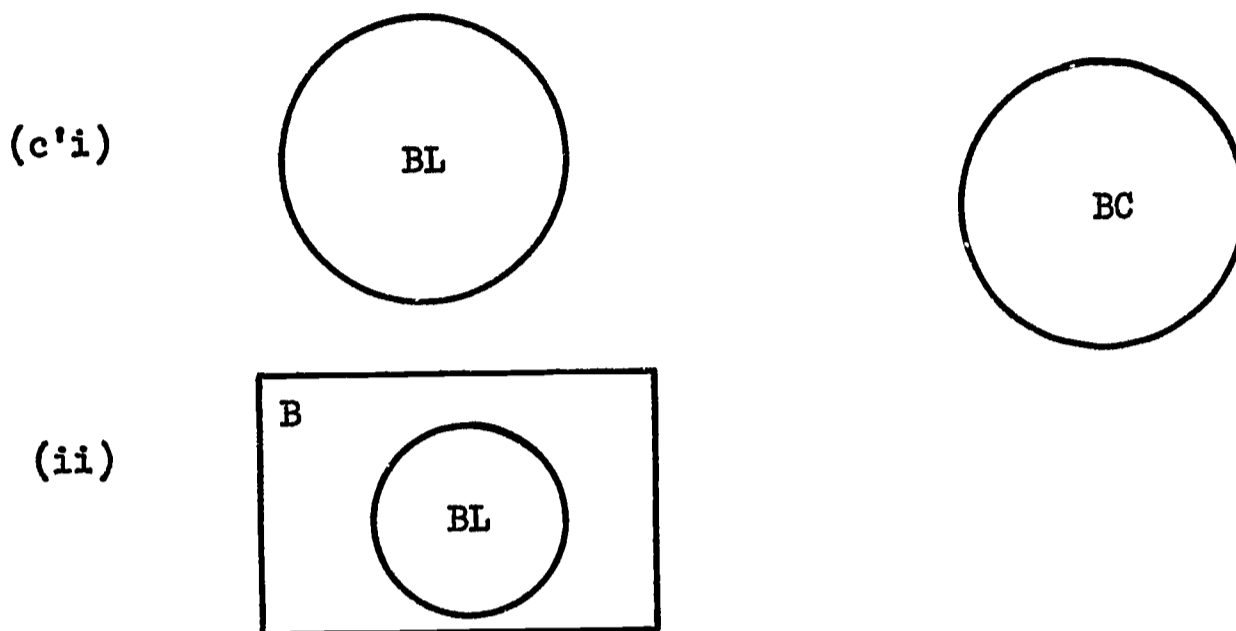
BLC = tushuguan li de yong zhongwen xie de shu 'books in
 the library that are written in Chinese'

BC = yong zhongwen xie de shu 'books written in Chinese'

We feel confident in saying that the two expressions:

tushuguan li de shu and naxie yong zhongwen xie de in sentence

(a) mean what is shown in (a'). That is, in (a) two groups of books are mentioned: the books in the library (represented by BL) and what the speaker wants to see. It is only the shaded portion (BLC) that is properly included in the first group of books.



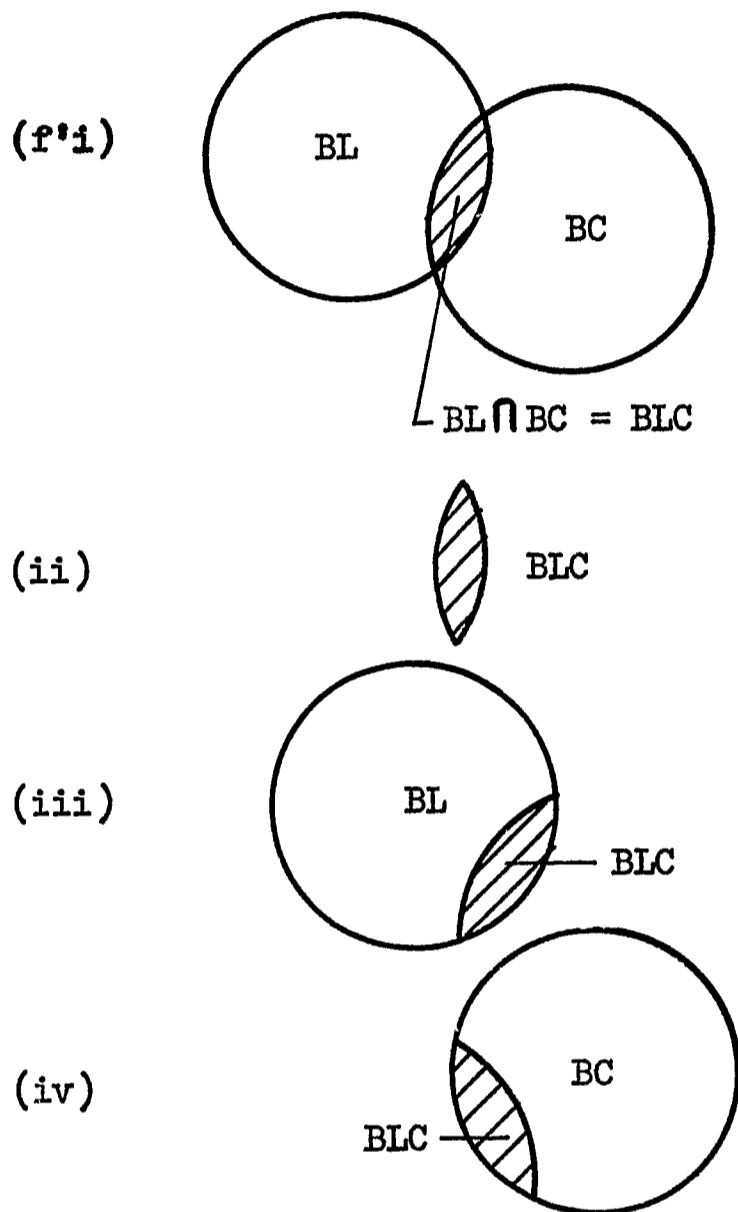
For sentence (c) we also feel confident in saying that only one group of books is mentioned in the sentence, and that diagram (i) rather than (ii) should be chosen for a better representation of (c), reserving diagram (ii) for sentence (g).

(g) shu ta xiang kankan tushuguan li de

'As for books, he wants to see those in the library.'

The same can be said for sentence (d) and diagram (d'). The difference between (b) and (e) is similar to that between (a) and (f).

The above explanation shows the semantic domain of this paper. It is, of course, difficult to define the domain of a linguistic topic on a semantic basis. This can be illustrated by the following question: how many sets or groups of books are mentioned in sentence (4f)?



Four answers are possible, as shown above.^{1a} (iv) is very unlikely; so is (i), unless a logically sophisticated speaker is answering the question. Diagrams (ii) and (iii) are both likely.

Here it is significant to notice that, so far as reference is concerned, the four interpretations in (f') are identical, since what the speaker wants to see is the part represented by $BL \cap BC$, which is equal to BLC. Moreover,

sentence (a) and (f) can be said to be equivalent, so far as the reference of what the speaker wants to see is concerned.

Another difficulty in defining the whole-part relationship on a semantic basis comes from the analysis of nonconcrete elements such as time units, action frequencies, and other abstract units.

5. (a) qunian wo zai na zhule hen jiu

last year I at there live very long

'I lived there for a long time last year.'

(b) qunian wo zai na zhule liangge yue

'I lived there for two months last year.'

(c) qunian wo changchang dao na qu zhu

frequently go

'I often went to stay there last year.'

(d) qunian wo zai na zhule liang ci

two times

'I went there to stay twice last year.'

(e) (yiqian) wo zai na zhule hen jiu

before

'I stayed there very long (before).'

(f) wo zai nar zhu guo.

ASP

'I have lived there before.'

If we recognize a whole-part relationship between qunian 'last year' and hen jiu 'very long' in (a) or liangge yue 'two months' in (b), each of which is an expression of duration of time, shall we also recognize such a relationship between the qunian and the changchang in (c) or the liang ci in (d), the last two of which are expressions of frequency? Shall we recognize any whole-part relation between yiqian 'before' and hen jiu 'very long'? Judging from the meaning of yiqian in the sentence (that is, the period of time from my birth to the present), there seems to be no reason to deny the existence of such a relationship in (c) and (d). But what about sentence (e) without yiqian 'before,' which means the same thing? And what about sentence (f), in which the aspect marker implies that I at least lived there at one time within the period from my birth to the present? We are not very clear about the treatment of the reference that is not overtly expressed, but is merely indirectly implied by some element in the sentence.

It seems clear that a portion or a subset of a larger set may not necessarily be realized as a noun, as can be seen in

(e), where the adjective hen jiu 'very long' is used to express a portion of time, and in (4g), where the adjective hen duo 'very much' or 'very many' is used to describe the amount of a subportion.

4. (g) shu ta kan le hen duo le
book he see very many

'As for books, he has read a lot (of them.)'

Compared with the problem of defining the domain of this study semantically, the problem of identifying the syntactic notions 'noun' and 'noun phrase' seems less complicated.

Elements that can function as subject or object are nouns. Even in cases where in the surface realization there is no noun in a noun phrase, the identification of noun phrases in the subject or object is generally easy.²

6. mai hua de lai le meiyou?
sell flower come ASP NEG ASP

'Has the flower seller come?'

Examples of part of a noun phrase behaving like adverbs are dayue 'approximately,' dou 'all,' and zhi 'only.' These have been treated as adverbs by grammarians because they usually occur in the following position, where most preverbal adverbs occur.

NOUN + _____ + VERB + NOUN

Judged from their cooccurrence restrictions with some nouns and what they denote in connection with nouns, they should obviously be regarded as part of some noun phrase.³

Although the prepositional-postpositional phrase chule Wang yiwai 'besides Wang' or 'in addition to Wang' has often been considered adverbial, I analyze it as part of a noun phrase because of its close syntactic and semantic connection with a noun in the sentence.

In the case of time and place expressions, a decision on the borderline between noun phrases and non-noun phrases is more difficult. If sange xiaoshi 'three hours' or liangnian 'two years' is nominal, can hen jiu 'very long' be regarded as nominal, with the head noun shijian 'time' deleted in the surface realization? The similarity between hen jiu 'very long' and liangge yue 'two months' in (5a) and (5b), respectively, suggests that they should be treated alike in the deep structure, and that they should be understood as (5a') and (5b'), respectively.⁴

5. (a') qunian wo zai nar zhu le yiduan shijian

'Last year I stayed there for some period of time.'

zhe yiduan shijian hen jiu

'This period of time is very long.'

(b') qunian wo zai nar zhu le yiduan shijian

'Last year I stayed there for some period of time.'

zhe yiduan shijian you liangge yue

'This period of time is two months.'

With the above brief discussion on the domain of this study, I shall now describe my approach.

Since the publication of Chomsky's Syntactic structures (1957), the form and theory of generative grammar have been undergoing great changes, and will probably continue to change.

This paper is intended to be an informal inquiry into a roughly defined aspect of a particular language.⁵ I will not, in general, undertake to formalize my observations as rules; rules and P-markers, where I do give them, are only for explanatory convenience. I accept certain general assumptions of generative transformational grammar: that the structure of actual sentences is best represented in terms of surface structures which are derived from their deep structures; that the syntax of a language consists of two parts: (1) the Base, which generates deep structures, and (2) the Transformation, which turns the deep structures into surface structures; and

that deep structures should account for the semantic interpretation of sentences, while surface structures should supply relevant information for phonetic realization. I do not, however, follow strictly any model of formalization or set of conventions proposed by a particular scholar for writing a generative grammar; I prefer to interpret structures without the bias of theories which are still developing and still inadequate, especially for the subject treated in this paper. This is, of course, in one sense a handicap. Many decisions made in this study may be arbitrary and lacking in the support of general theory.

My position in this paper with regard to the relation between syntax and semantics is, admittedly, vague.⁶ What I am clear about is that deep structures, which are the output of the Base, provide the basis for the semantic interpretations of sentences and are postulated for their simpler surface realization. Hence I have made it a rule to represent one semantic interpretation by one deep structure, disregarding the differences or similarity among actual sentences. This principle, to be sure, is very difficult to follow in practice, since we do not yet have objective criteria for determining whether two given sentences have the same meaning or not.

Taking the following sentences for example, are (a) and (b) identical in semantic interpretation? How many meanings are possible in sentence (b)?

7. (a) wo du le na baben shu de sanben le

I read that eight book three

'I read three of the eight books.'

(b) na baben shu wo duguo sanben le

that eight book I read three

'As for the eight books, I have read three of them.'

Tentatively, I shall, for the purposes of presentation, recognize two kinds of meanings: (1) meanings on the denotative level, in which the notions of the actor-of, the receiver-of, action, time, place, etc., are relevant, and (2) meanings on the discourse level, in which the notions of the topic-of, the comment-of, etc., are relevant. It is on the denotative level that (a) and (b) are identical, and it is on the discourse level that (a) and (b) are different. This does not mean that I advocate two subcomponents in the Base. I simply do not know how the second kind of meaning should be incorporated in the grammar; I can only discuss several possible ways of handling this problem. Therefore, in the first few

chapters I shall ignore the difference between the two sentences and postulate the same deep structure for their basic semantic interpretation. In a later chapter I shall discuss several ways to account for the difference between two such sentences.

1. Components of determinatives

The notion of the determinative or adjunct to the noun seems so widespread among linguists that it is hardly necessary to define it here. From a semantic viewpoint, the determinative either defines the denotation together with the head noun or describes the reference already defined by other parts of the noun phrase.

The following determinatives may appear as part of the matrix string or as part of an embedded string in the Base.

1.1. Quantitatives and their equivalents

	NUP	N	
8. (a)	<u>sange</u>	<u>ren</u>	'three persons'
(b)	<u>henduo</u>	<u>ren</u>	'many persons'

1.2. Modifier (MOD).

	MOD	N	
9. (a)	<u>hong</u>	<u>shu</u>	'red book'
(b)	<u>yao lai de</u>	<u>ren</u>	'people who are coming'

1.3. Genitive (GEN).

	GEN	N	
10. (a)	<u>wode</u>	<u>zhipiao</u>	'my check'
(b)	<u>womende</u>	<u>chezi</u>	'our car'

1.4. Specifying markers

di '-th', qian 'front,' shang 'upper,' in the following phrases, and hou 'back,' xia 'lower,' etc., can be called specifying determiners, since they serve to restrict nouns by specifying their position in terms of space:

11. (a) dì sange 'the third'
 (b) qián sange 'the front three'
 (c) shàng yige 'the upper one'

Among these only di '-th' needs to be introduced in the Base. The rest can be derived from a modifier with a locative time expression plus a definite marker. Hence (11b, c) may have come from (12b, c), respectively.

12. (b) (nà sange) zài qiánbian de nà sange
 at front that three
 'The three that are in the front.'
- (c) (nà yige) zài shàngbian de nà yige
 at above that one
 'The one on the top.'

1.5. Definite and indefinite markers

The yǒu in (13a) and nà in (13b) can be regarded as indefinite marker and definite marker, respectively. (See Section 3.7.4. for alternative solutions for indefinite yǒu.)

13. (a) yǒu yige rén yào jiàn nǐ
 one person want see you

'Someone wants to see you.'

(b) wǒ yǐ dú guo nà ben shu le
 I already read that book

'I have read that book already.'

1.6. Generic marker

Nouns of generic reference are usually unmarked, as in (14a), but if the generic reference is emphasized, the marker fanshi or suoyoude 'all, any, so long as' is used as in (14b).

14. (a) xiang bizi hen chang
 elephant nose very long

'An elephant has a long nose.'

(b) fanshi xiang bizi dou hen chang
 so long as elephant nose all very long

'All elephants have long noses.'

'So long as it is an elephant, it has a long nose.'

1.7. Deictic marker

The deictic markers zhe 'this, these' and nà 'that, those' should be distinguished from their homonyms: the zhe and nà in (1) the prodegree zheme, nàme (2) the proadverbs of manner zhemeyang 'this way,' nàmeyang 'that way' (3) the pronouns zhege

'this one,' nàge 'that one,' zhèxiē 'these,' nàxiē 'those,' and

(4) prosentences--zhè and nà as in (15):

(15) ta bu xiang qu le { na } zenmo xing
 zhe

he not want go {that } how be right
 >this }

'He does not want to go any more. How could {that } be
 >this }

possible?' (or 'This won't do.')

and (5) the definite marker nà, etc. Admittedly, the distinction is sometimes hard to make.

The deictic marker zhè denotes (or implies) the presence of the object in question near the speaker; nà denotes its location far from the speaker.

The definite marker nà has little near/distant or now/then reference (16a, b), since such reference is often denoted in the restrictive modifier. As a matter of fact, the definite marker nà can be deleted, if the preceding restrictive modifier is not deleted, without affecting the meaning of the sentence.

16. (a) ta zuotian diu de na wuzhi qianbi yizhi

he yesterday lost that five pencil still

mei zhaodao

not find

'The five pencils he lost yesterday have still

not been found.'

(b) nà wǔzhi qianbǐ wǒ zhǎodao le

that five pencil I find

'I found the five pencils.'

(c) jiù shì zhè wǔzhi

be this five

'They are these five.'

(d) bù shì nà wǔzhi

not be that five

'They are not those five.'

(e) shì, zhèxiē zài wǒ qiánmian de nà wǔzhi qianbǐ

yes these at I front the five pencil

jiù shì

be

'Yes, they are those that are in front of me.'

The nà in (a) and (b) is a definite marker. The restrictive modifier may be absent as in (b), and then the definiteness of the noun is indicated solely by nà. That the definite marker and the deictic marker are different can be seen from the contrast in (b, c, d)--(b) and (c) are spoken by the same person about the same five pencils--and the cooccurrence of the deictic marker zhè 'this, these' and the definite marker nà in (e).

That the deictic marker is closely related to the locative

can be seen from (17a), in which the deictic marker zhè 'this' does not match the nàr 'there.'

The nà and zhè do not have to match the locative in (17d) and (e), since the locatives are in the modifying clause and not in the main clause.

17. (a) *zhe wuben shu zai nàr

this five book at there

(b) (xianzai) zai wo qianmian de zhe wuben shu

(now) at my front this five book

shi shei de?

be whose

'Whose are these five books which are (now) in front of me?'

(c) (xianzai) zai ni zhuoshang de nà wuben shu

(now) at your desk

shei de?

the
'Whose are {those} five books which are (now) on your desk?'

(d) (zuotian) zai wo zhege zhuoshang de nà wuben

(yesterday) my desk

shu shi wo de

mine

'The books that were on my desk (yesterday) are mine.'

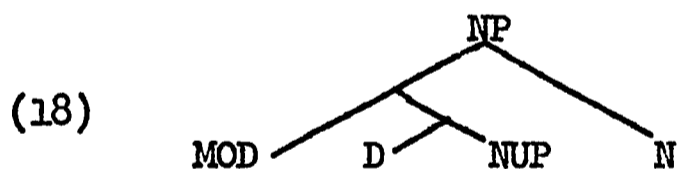
(e) (zuotian) zai ni nage zhuoshang de zhe wuben shu shi
(yesterday)

ta de

his

'These five books which were on your desk (yesterday)
are his.'

A problem arises, however, when one has to decide whether the zhe in (17b), and the na in (17c) are deictic markers, definite markers, or both. In view of the fact that the noun phrase in (16a) has a similar structure to that in (17b) and (c), i.e. 18, one wonders if there is any formal criterion to distinguish the two.



The answer is negative, even though na without a deictic reference is never placed before MOD, and there is a tendency for na with a deictic reference to precede MOD. For the na in (17c) may or may not have such a reference, as can be seen from the translations. It should be noted here that two na's (definite and deictic) are recognized, in spite of this lack of definite criteria to determine whether na has a deictic reference or not, and in spite of the ambiguity that the na

may have in most of its occurrences in this position (i.e. MOD. + ___ +NUP+N).

As for the zhè in (17b), this should be regarded as a deictic marker only, not as both deictic and definite. This means that there is only one definite marker (i.e. nà), and zhe can only be a deictic marker when it is used as a determiner (i.e. when it is not used as a pronoun). This is so because definiteness is implied in deixis, and there is no need to recognize two morphemes, one of which is always implied by the other.⁷ We need to recognize a definite marker nà, because there are nouns that are definite, but do not necessarily have any deictic reference.

Occasionally people use zhè 'this' for persons or things which are not present.

19. (a) nǐ juéde Wáng xiānsheng zěnyang?

you feel Wang Mr. how

'What do you think of Mr. Wang?'

(b) wǒ juéde zhège rén zhen qíguài.

I feel this person real strange

'I think this man is very strange.'

But we still can regard the zhè 'this' in (19b) as a deictic marker because the name Mr. Wang is present in either a written or a spoken form. A similar use of the deictic marker

zhè for referring to a name rather than the object itself can be seen in

20. (a) Wáng xiānshēng zhège rén zěnyang?

Mr. this person how

'What do you think of Mr. Wang?'

(b) zhège rén nǐ juéde zěnyang?

this person you feel how

'What do you think of this person?'

zhè 'this' in (20a) refers to the Wáng xiānshēng 'Mr. Wang' just mentioned. The zhè in (20b) may be used when the speaker is pointing to the name of a person on a list.

An extended use of zhè 'this' and nà 'that' is their spatio-temporal reference in proadverbs of manner and pronouns: nà is used to replace an object or action existing at a place or time remote from here or now and zhè for that which exists here and now.

As sentence substitutes zhè and nà have hardly any near vs. distant reference; the choice between the two is rather arbitrary. (See 15)

1.8. Scope expressions

quánbu 'totally; all,' dàbùfen 'majority,' etc., have been generally regarded as adverbs of scope.

21. (a) <u>tamen</u>	}	<u>quánbu</u>	}	dou yao qu	'They all want to go.'
		<u>měi yige</u>			'Every one of them wants to go.'
		<u>gège</u>			'Every one of them wants to go.'
		<u>dàbufen</u>			'The majority of them want to go.'

(b)	<u>tamen</u>	<u>zhǐyou</u>	{	<u>jǐge</u>	}	<u>yao</u>	<u>qu</u>
	they	only	{	<u>xiǎobufen</u>	}	want	to
	'Only a few of them want to go.'						

'Only the minority of them want to go.'

In this analysis they will be regarded as a part of the determinative.

1.9. Adverbs of impression of scope

dou 'all' and zhǐ 'only' in (21a) and (21b), respectively, indicate the speaker's impression of the scope of the noun. Since they often go with the verb, and cannot occur with a noun but without the verb in the surface realization, they are usually regarded as verb adjuncts. This analysis treats them as part of the determinative because of their close relationship with the scope expressions, including the numerals in the

determinative.

26

1.10. Limiting adverbials

The limiting adverbials are often considered as subordinate phrases or clauses conjoined to the main clause by conjunctions: chúle . . . yǐwài 'besides, except,' qíta de 'others.'

22. qítade nà jiǔge rén quán dou sǐ le
other that nine person all die

'All the other nine persons died.'

23. nà jiǔge rén chúle ta yǐwài dou sǐ le
that nine person except he all die

'The nine persons all died, except him.'

For reasons to be given shortly, I regard limiting adverbials as part of the determinative.

2. Definite, indefinite and generic reference

2.1. Definite and indefinite reference

Though Chinese has what we may call definite and indefinite markers, it tends to depend on word order to indicate definite and indefinite reference. (Cf. Chao, 1965, p. 98-)

Definite nouns tend to be placed before the verb or even the subject, whereas indefinite nouns are usually placed after the verb. It is noteworthy that nouns in such positions may or may not have a marker for definiteness or indefiniteness.

24. (a) wǒ yào qǐng kè

I want invite guest 'I want to invite some guest(s).'

'I want to treat (some one).'

(b) kèren lái le

guest come

'The guest(s) has (have) come.'

But definite nouns do occur after the main verb, and indefinite nouns before it, and in these cases definiteness and indefiniteness are usually, though not always, marked.

25. (a) wǒ xiě wán nà yì fòng xìn le

I write finish that one letter

'I finished writing that letter.'

(b) yǒu yíge péngyou sòng wǒ yíben shu

a friend give me a book

'A friend (of mine) gave me a book.'

A noun appearing after the main verb may be definite and yet unmarked. These cases of unmarked definite nouns may include instances such as the following:

(1) when the noun has generic reference

26. Zhongguo rén dou zunzhong lǎo rén

Chinese people all respect old people

'All Chinese respect aged people.'

(2) when the definiteness of a noun is understood

from the meaning of the noun (i.e. proper nouns or their equivalents).

27. nǐ kānjian yuèliang ma?

you see the moon

'Do you see the moon?'

(3) when the definiteness can be inferred from life

contexts.

28. qǐng zǒudao ménkou lái.

please walk to door

'Please come to the door.'

(4) when the definiteness can be determined by linguistic contexts:

a. nouns with modifiers which have superlative constructions:

29. (a) shùxué shi wo zài xǐhuan de gongke

math be I most like course

'Math is the course which I like best.'

b. nouns with restrictive modifiers:

29. (b) zhè jiu shi nǐ zúotian mǎi de shu

this be you yesterday buy book

'This is the book you bought yesterday.'

29. (c) Wáng San shi wǒmen xuéxiào de xiàozhǎng

be our school principal

'Wang San is the principal of our school.'

c. nouns whose definiteness can be inferred from some other noun(s) in the same sentence or previous sentence(s). For example, the unique reference of xuexiao 'school' can be inferred from the context and should be understood as Wáng San yizhi zai shang de nage xuexiao 'the school that Wang San had been attending.'

29. (d) Wang San bu shou xiaogui

NEG observe school regulations

bei xuexiao kaichu le

school dismissed

'Wang San was dismissed because he did not observe school regulations.'

(5) when a noun is used in an abstract sense

30. nǐ yào bu yao dúshu?

you want not want study book

'Do you want to study?'

In brief, the definite marker is not constantly (or obligatorily) present, and the rules for its distribution are difficult to formulate because we need to refer to stretches of discourse longer than the sentence and to nonlinguistic context.⁸

In spite of many difficulties involved in determining the conditioning factors that underlie the question of the presence or absence of the so-called definite and indefinite markers, the notions of definiteness and indefiniteness must be recognized, as can be seen from the above examples. Unfortunately, we still know very little about which categories of nouns possess a definite vs. indefinite distinction. We also

know very little about another important question: if there are categories of nouns that possess such a distinction, is this distinction obligatory or optional? In other words, is the definite/nondefinite distinction mandatory for some Chinese nouns as number and tense are in English, or is it like time expressions in English that are used only when the speaker feels like it?

2.2. Determinatives that exclude definite and indefinite markers

To answer our first question, we must first find out which determinatives are mutually exclusive with the definite marker nà and the indefinite marker yǒu. So far as surface structure is concerned, the indefinite marker may be you + NUP before the main verb and NUP after the main verb.⁹ This indefinite 'marker' and the following determinatives are mutually exclusive with the definite marker nà:

(a) The deictic markers nà and zhè, which, as I have mentioned, imply definite reference

(b) The numeral marker dì

(c) Specializing determiners: shàng 'above, upper,' xià 'lower,' qián 'front,' hòu 'back, behind' are mutually exclusive with nà or you in ___ NUP + N. But shàng, xià, etc.

can be regarded as contractions with the definite marker in this position. (See 1.4.)

2.3. Nouns that take no definite or indefinite marker

Next we need to know which types of nouns do not take any definite or indefinite marker.

(a) Proper nouns and pronouns take no definite or indefinite marker. The yǒu and nà in the following (a's) should be derived through a deletion transformation from (b's).

31. (a) jintian yǒuge Wáng xiansheng lái zhǎo ni
today Mr. come see you

'A (certain) Mr. Wang came to see you today.'

(b) jintian yǒuge jiào Wáng xiansheng de rén lai
today call Mr. man come
zhǎo nǐ
see you

'A man called Mr. Wang came to see you today.'

32. (a) wǒ rènshi de nàwei Wáng xiansheng shi bù chouyan de
I know that Mr. be not smoke

'That Mr. Wang I know of does not smoke.'

(b) wǒ rènshi de nàwei jiào Wáng xiansheng de rén shi bù
I know that call Mr. man be not

chouyen de

smoke

'The man whom I know who is called Mr. Wang does not smoke.'

The nà's that precede the pronouns in the following (a's) should be regarded as deictic markers in apposition in the (b's). (Compare 34a, b with 34a', b'.)¹⁰

33. (a) wǒ pian bu bǎ nàge Wáng San dàilai

I stubbornly not that bring

'I stubbornly did not bring (that) Wang San here.'

(b) wǒ pian bu bǎ Wáng San nàge ren dàilai

I stubbornly not that man bring over
here

'I stubbornly did not bring (that) Wang San here.'

34. (a) Zhang San lái le, Lǐ Sì ye lái le, zhǐyǒu nàge

come also come only that

lǎo Wáng hái bu lái

old still not come

'Zhang San has come; Li Si has also come. Only that

Old Wang has not come yet.'

(b) Zhang San lái le, Lǐ Sì ye lái le, zhǐyǒu lao Wáng

only

nàge ren hái bu lái

that man still

'Zhang San has come. Li Si has also come. Only Old Wang, that man, has not come yet.'

34. (a') Yídali kǎ le, Déguo ye kǎ le, zhǐyǒu zhè
Italy defeat Germany only this

ge Rìben hai bu kěn tóuxiáng

Japan still not willing surrender

'Italy was defeated and so was Germany. Only Japan (this country) was not willing to surrender.'

- (b') Yídali kǎ le, Déguo ye kǎ le, zhǐyǒu Rìben
Italy defeat Germany also defeat only Japan

zhège guójia hai bu kěn tóuxiáng

this country still not willing surrender

'Italy was defeated and so was Germany. Only Japan, this country, was not willing to surrender.'

The following ta 'he' should be regarded as a common noun rather than a pronoun, as can be seen from the translation.

35. (a) ta de nàge ta hen shuài

her that he very handsome

'That boy friend of hers is very handsome.'

- (b) Nouns with generic reference do not take any definite or indefinite marker.

Generic nouns may be marked with either sūoyoude 'all' or fánshi 'all.' When fánshi is chosen for an object, the noun phrase must be placed before the verb, and the adverb of totality dou or a totality word like quánbu before the predicate.

36. (a) fánshi niǎo dou néng fēi
all bird all can fly

'All birds can fly,' or 'So long as it is a bird, it can fly.'

(b) fánshi niǎo $\left\{ \begin{array}{l} \text{quán} \\ \text{dàbūfen} \end{array} \right\}$ dou néng fēi
 $\left\{ \begin{array}{l} \text{All} \\ \text{Most} \end{array} \right\}$ birds can fly.

(c) fánshi xiǎoshuō tā dōu xǐhuan dū
novel he like read

'He likes to read (any kind of) novels.'

(d) tā fánshi xiǎoshuō dōu xǐhuan dū

'He likes to read (any kind of) novels.'

When sūoyoude 'all' is chosen for an object, transposition of the noun phrase is not obligatory. But when it is transposed, the adverb of totality or a totality word is required.

37. (a) wǒ tǎoyan sūoyoude zhèngkè
 I dislike all politician
 'I dislike all politicians.'

(b) sūoyoude zhèngkè wǒ dou tǎoyan
 all politician I all dislike
 'I dislike all of the politicians.'

But generic nouns are usually unmarked, unless their generic character is emphasized, as in sentences (36) and (37).

38. gǒu de zhìlì bi hóuzi gāo
 dog intelligence monkey high
 'The intelligence of a dog is higher than that of a monkey.'

In the Base, genericness is marked with Gnr (B11), which is mutually exclusive with UNV^a. (UNV^a will be explained later.)

Gnr is expanded into sūoyoude 'all' or null; fánshi is derived from súoyoude.

A noun plus a preceding yǒu yīzhǒng 'a kind of' is not considered a generic noun.

39. yǒu yī zhǒng yú huì fādiàn
 have one kind fish can generate electricity

'There is a kind of fish that generates electricity.'

We do not know which other categories of nouns fail to take definite or indefinite markers; it seems reasonable, however, to assume that all countable nouns (nouns that take individual measures, or classifiers *Mc*) can take them. This does not exclude the possibility of allowing uncountable nouns to take a definite or indefinite marker.

40. (a) wǒ bu xǐhuan tāde nà zhong měi

I not like her that kind beauty

'I do not like her kind of beauty.'

(b) ta shenshang de nà zhong chòuwèi zhen nánshòu

he body that kind smell real hard tolerate

'It is hard to tolerate that kind of smell on his body.'

(c) yǒu yìxiē ní zhan zai wǒ shenshang le

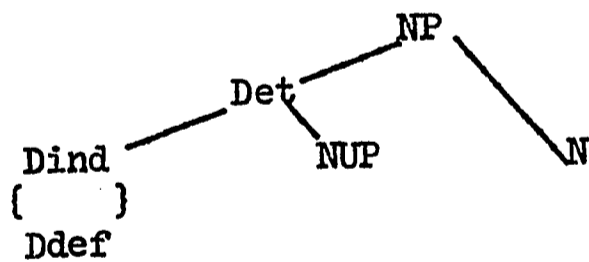
some mud stick on I body

'Some mud stuck to my body.'

2.4. Are definiteness and indefiniteness mandatory in Chinese?¹¹

Definiteness and indefiniteness do not seem to be mandatory for Chinese nouns. This means that definiteness and

indefiniteness are marked only when the speaker finds it necessary. These categories are not like English tense and number, which must always be marked, but like English or Chinese time and locative expressions, which are specified only when it is necessary to make them explicit. One may argue that one can determine whether a noun is definite or indefinite in most cases, and hence definiteness and indefiniteness should be obligatorily marked in the Base, the markers then being optionally deleted through transformations. To do this we must be able to write rules to determine the deletions of these markers, which are introduced as obligatory adjuncts to at least some nouns, as shown below.



But this can be done only when a numeral phrase is chosen for a noun, as in the following examples, where definite and indefinite reference are unambiguous.

41a) wo mai le yiben shu
 I buy one book
 'I bought a book.'

41b) wo mai le yixie shu

I buy some book

I bought some books.

42. wǒ mǎi le nà $\left\{ \begin{array}{l} \underline{(y\dot{i})ben} \\ \underline{(y\dot{i})xie} \end{array} \right\}$ shu¹²

I bought that book.

'I bought those books.'

43. yǒu $\left\{ \begin{array}{l} \underline{y\dot{i}ge} \\ \underline{y\dot{i}xie} \end{array} \right\}$ rén lái le

A person has come.

'Some persons have come.'

44. nà $\left\{ \begin{array}{l} \underline{y\dot{i}ge} \\ \underline{y\dot{i}xie} \end{array} \right\}$ rén lái le

That person has come.

'Those persons have come.'

In cases where no numeral phrase is chosen for a noun, a very large context or even the life context is needed to determine definiteness and indefiniteness. Hence the nouns in the above sentences would be ambiguous in this respect, if the numeral phrase were not present.

Here are examples in which nouns are unmarked.

45. (a) wǒ xiǎng xiě xìn

I want write letter

'I want to write a/the letter.'

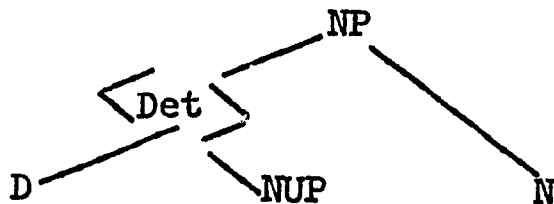
(b) ta xìn xiě wan yǐhou jiu lái jiàn ni

he letter write finish after come see you

'He will come to see you after he finishes writing
the/a letter.'

Though there is a tendency for the xìn 'letter' in (45a) to be indefinite and that in (45b) to be definite, the opposite is entirely possible in both cases. If a numeral phrase is inserted without a definite marker, then the nouns in the above can be understood only as indefinite.

In view of this, I propose the following phrase structure for Chinese noun phrases. (Details are omitted.)



Determiners (D, including deictic, definite, indefinite, and ordinal numeral markers) are obligatorily chosen with a numeral phrase (NUP); Det [D+NUP] is optionally chosen for a noun.¹³

(I am not sure whether we should let all kinds of nouns take Det optionally or let some kinds of nouns take Det

obligatorily and prohibit all other kinds from taking a Det.
The question is too general to discuss here.)

2.5. Number

It is safe to say that number is an optional category for Chinese nouns. The only reservation needed in this connection is that when a noun takes a measure word, a definite marker, or a deictic, number is obligatory. This is so because *D+N or *M+N without a numeral is ungrammatical.

46. (a) shu pò le

book break

'The book has become ragged.'

(b) *běn shu pò le

(c) *nà shu pò le

The notion of a binary distinction in number, singular vs. plural, can be observed in determinatives in which the numerals are absent when they are used either as an attribute to or as a substitute for nouns.

47. (a) zhè yiben shu pò le --->

the one book break

'This book has become ragged.'

(a') zhè ben shu pò le --->

(a'') zhè ben pò le

'This has become ragged.'

(b) zhè liǎngben shu pò le ---→

two

(b') zhèxie ben shu pò le ---→

these

(b'') zhèxie pò le

'These have become ragged.'

(c) zhè sanben shu pò le ---→

three

(c') zhè xie ben shu pò le ---→

these

(c'') zhèxie pò le

'These have become ragged.'

It seems proper to show this distinction by deriving D+Mc and D+xie+Mc from D+NU₁+M and D+NU₂+M, respectively (where NU₁ stands for yi 'one' and NU₂ for a numeral greater than one). However, this does not exclude the introduction of yi xie 'some' in the Base for two reasons:

(1) Some nouns cannot take D+NU+Mc, but may take

D+yi xie.

48a) zhèxie nitu ←'this (some) mud' | yixie nitu 'some mud'

b) zhèxie fen ←'this (some) powder' | yixie fen 'some powder'

48. (c) *zhexie ge nitu *yixie ge nitu
 these mud
- (d) *zhexie ge fen *yixie ge fen
 powder

These nouns are mass nouns. Therefore we need yixie 'some,' jige 'several,' etc., for mass nouns in the Base.

(2) It is rather counterintuitive to say that all cases of zhexie ben shu 'these books,' naxiege ren 'those people,' etc., are derived from D+NU+Mc+N (where NU is greater than one), and never vice versa. There are cases in which zhexie 'these' and naxie 'those' are used as substitutes for D+NU+M+N, and it is only in these cases that such a derivation is appropriate. Moreover, we need a transformation for pronomeralization. There are also cases, to be sure, where a speaker uses zhexie or naxie in the very beginning without any idea of a specific number, except that he is quite sure that the nouns in question are plural.¹⁴

Unless my observation that in some cases yixie 'some,' jige 'several,' etc., are used prior to any specified numeral is regarded as irrelevant in transformational analysis, there is no reason to exclude such words from the Base. Hence, according to my solution, zhexie shu 'these books' may have two sources:

- (1) zhè sanben shu, etc. ---> *zhè yixie ben shu --->

$$\begin{array}{l}
 \left. \begin{array}{l} \underline{\text{zhèxie}} \underline{\text{ben}} \underline{\text{shu}} \\ \underline{\text{zhè}} \underline{\text{yixie}} \underline{\text{shu}} \end{array} \right\} \longrightarrow \underline{\text{zhèxie}} \underline{\text{shu}}, \text{ and} \\
 (2) * \underline{\text{zhè}} \underline{\text{yixie}} \underline{\text{ben}} \underline{\text{shu}} \quad \longrightarrow \underline{\text{zhèxie}} \underline{\text{ben}} \underline{\text{shu}} \quad \longrightarrow \\
 \quad \quad \quad \underline{\text{zhè}} \underline{\text{yixie}} \underline{\text{shu}} \\
 \underline{\text{zhèxie}} \underline{\text{shu}}
 \end{array}$$

zhèxie from source (1) is a substitute for a numeral; zhèxie from source (2) is purely a deictic marker plus a plural marker, and nothing else.

The question of whether yixie 'several' as a plural pronumeral for countable nouns should appear in the Base is closely related to the question of whether pronouns like I, you, and he should appear in the Base. If I, you, etc., should be derived transformationally on the grounds that they must be identical in reference with some human nouns (e.g. The doctor said to the boy, "Could you show me your hand?"), and should be derived from the latter (plus first, second, and third person, which should be generated from the Base) to show this relationship, then the pronumerals under discussion should have no place in the Base either. If, on the other hand, pronouns are introduced in the Base, without showing their relation to other nouns, on any grounds, then the pronumeral should be introduced likewise, for consistency's sake.

3. Scope

Here we shall be concerned with the part of the determinative which I call scope (SCP).

3.1. Scope in contrast with universe

At first glance, one may be puzzled as to how the two bracketed expressions in each of the following sentences are related to each other and to the rest of the sentence:

49. (a) [báwei kèren] zhǐ láile [sanwei]

eight guest only come three

'Out of the eight guests only three came.'

(b) [nà bazhi qianbǐ] ta yi dǎduàn le [sanzhi]

that eight pencil he break three

'Of the eight pencils he broke three.'

(c) [ta zuotian diu de na baben shu] wo

he yesterday lose that eight book I

jiǎnle [wǔben]

find five

'Of the eight books he lost yesterday, I found five.'

(d) [quán jia rén] zhǐ you [zhè sange ren]

all family person only this three person

pà ta

afraid he

'Among the whole family, only these three persons
are afraid of him.'

To regard what precedes the verb as the subject and what follows the verb as the object is out of the question, since in (49a, b, c) the first bracketed expressions have no such relationship with the second ones as denoted by the verbs. Moreover, (d) would be left unsolvable, since the two bracketed nominal expressions both precede the verb.

One may propose to derive (a-d) through conjoining transformations, regarding the first bracketed expressions as the potential subjects (or objects in the case of (b) and (c)) and the second ones as the actual subjects (or objects in the case of (b) and (c)). This solution may render a unified structure to each of the sentences as a whole, but it fails in a significant way, since it does not show the relationships between the first and second bracketed expressions satisfactorily. (See 3.7. for discussion of other alternatives.)

How the first and the second expressions are related to each other can be seen from the following:

(1) All the first expressions denote a quantity that is greater than that of the second, and interchanging the two would make the sentences nonsensical (probably ungrammatical).

(2) The classifier (e.g. wei, the honorific classifier for human beings) in the first bracketed expressions is usually identical with that in the second expressions. Where it is not identical, it is a group measure, such as qun 'group' or ban 'class,' which denote a unit including more members than what is denoted by the measure word in the second bracketed expressions.

(3) When BA¹⁵ is used for (49b), the most natural way of arranging the sentence is to put the first expression immediately after BA, the second expression remaining after the verb.

49' (b) ta ba [nà bazhǐ qianbi] dǎduàn le [sanzhi]
 he that eight pencil break three

Ignoring the second expression, the sentence is in accordance with the general arrangement of BA-sentences: Subject+BA+Object+verb.¹⁶

(4) When passive BEI¹⁷ is used in (49b) and (c), the passive marker BEI can be placed after the first bracketed expressions; the second ones remain after the verbs.

49" (b) [na bazhi qianbi] bei ta daduan le [sanzhi]
 eight pencil he break three

(c) ta zúotian diu de nà baben shu gei ta jiǎn le wǔben
 lose eight book he find five

Disregarding the second expressions, the two sentences have the general pattern of passive sentences: object+BEI + subject+verb. It is obvious from the behavior of the first expressions in the pretransitive and passive sentences that these expressions should not be regarded as adverbial in the Base, but as subject or object.

(5) If (a, b, c) are changed into the negative, the second expressions have to be transposed before the verbs and after the first bracketed expressions.¹⁸

50. (a) [báwei kèren] zhǐ yǒu [sanwei] méiyou lái
 eight guest only three not come

'Only three of the eight guests did not come.'

(b) [nà bazhi qianbǐ] yǒu [sanzhi] ta méi dǎduàn
 that eight pencil three he not break

'Of the eight pencils he did not break three.'

(c) [ta zúotian diu de nà baben shu] you [wǔben]
 he yesterday lose that eight book five
wǒ méi jiǎndao

(6) If the adverb zhǐ 'only' is absent (a, b, c) can be rewritten as follows. Here the first expressions appear like MOD's to the second ones, for they are connected to the latter by de.

51. (a) [nà bawei kèren] de [sanwei] lái le

that eight guest three come

'Out of those eight guests three have come already.'

(b) ta dǎduàn [nà bazhi qianbǐ] dangzhong de [sanzhi]

he break eight pencil three

'He broke three of those eight pencils.'

(c) wǒ jiǎn le [ta zúotian diu de nà baben shu] de

I find he yesterday lose eight book

[wǔben]

five

'Of the eight books he lost yesterday, I found five.'

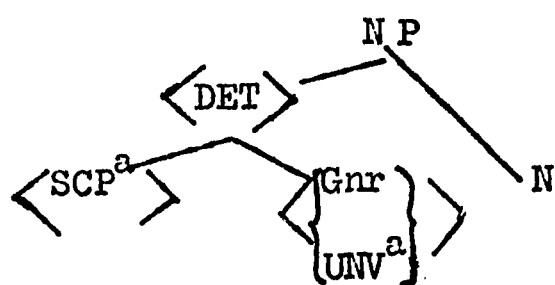
(7) The first expressions denote wholes of which the second expressions are parts. The second ones denote that part of the whole which is relevant in what is denoted by the verbs. Since the first bracketed expressions denote the wholes, they must always be definite; the second ones may be definite (d) or indefinite (a, b, c) in reference.

From what has been observed above, it would surely be misleading to say either that only the first bracketed expressions (i.e. the wholes) are the subjects (or the objects in the case of (b) and (c)) or that only the second ones (i.e. the parts) are the subjects (or the object in case of (b) and (c)) in the

sentence.¹⁹ In spite of the frequent discontinuity, the whole together with the part should be regarded as a unit, or a constituent functioning as subject (or object in the case of (b) and (c)) in the deep structure.

To discuss how the whole and the part may behave in a sentence will be my chief concern in the remainder of this chapter. To avoid too many complications, I shall limit my discussion to cases in which the whole and the part share the same noun. Cases in which the whole and the part do not share the same noun will be discussed briefly in 3.7. This does not mean, of course, that the whole and the part with different nouns are insignificant or irrelevant to our present problem. On the contrary, they must be investigated before any satisfactory solution can be found for our problem. Our avoiding the discussion of such important cases is motivated by convenience of presentation.

Since the whole and the part share the same noun under our present discussion, it is quite proper to derive them as a part of the determinative in a noun phrase. In other words, we shall derive the second expressions in (49) from the scope (SCP), signifying the part, and the first expression minus the noun from the universe (UNV), signifying the whole, as presented in the following:



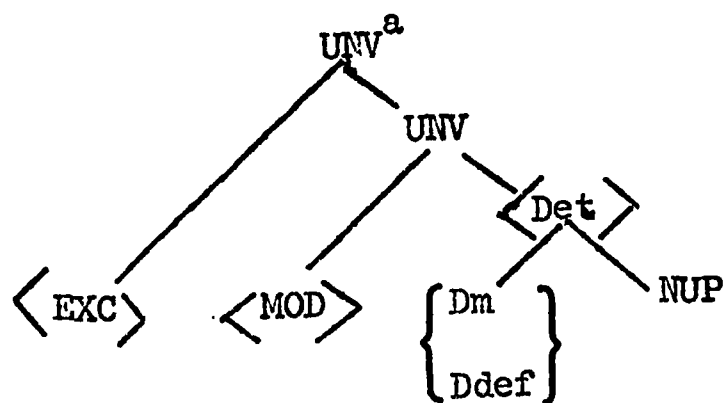
It will be noted as we proceed that the above arrangement for the structure of NP is motivated by simplicity for the transformations which rearrange its members. In spite of the general opinion that word order is comparatively fixed in Chinese, there is a certain amount of freedom in arrangement of UNV and SCP in the sentence (if we ignore the topic-comment or described-describing relation).

Generally speaking, if NP is the object, $UNV^a + N$ may be transposed before the verbs or the subject. If NP is the subject, the SCP^a may be shifted after the N or after the verb in the derived string.

3.2. The structure of the universe and scope

3.2.1. Universe

The UNV^a is expanded as follows:



The excluding adverbial (EXC, chule ... yiwai 'except, besides') may cooccur with a definite (45), but not with a generic noun. That is why Gnr is alternatively chosen with UNV^a instead of UNV (E11).

52. chule Wáng San yǐwài de nà shíge rén dou qu le
 that ten person all go

'All ten persons went, but not (and not counting) Wang San.'

Generic nouns may or may not be marked. As mentioned above, Gnr has two terms, fánshi 'all' and zero in the Base. From fánshi can be derived its free alternant súoyǒude 'all.'

53. (a) fánshi
 suoyoude rén dou you lǐxìng

'All men have reasons.'

The choice of fánshi (or súoyǒude) as an alternative to zero can be regarded as emphasis on genericness. Fanishi could

be made an optional term, rather than an alternative term with zero. This would lead to an interpretation that all unmarked nouns in the Base are generic, an interpretation which may result in difficulty.

Any noun taking a restrictive modifier is not regarded as generic, though it may take fánshi or sǔoyǒude. In this case, the fánshi or sǔoyǒude is regarded as emphasis on the totality of the noun with a restricted modifier, and will be introduced through a transformation.

53. (b) fánshi zài chàng de ren quán dou kàndào zhège qíjǐ
 all at people all see this miracle

'All the people who were present saw this miracle.'

The restrictive modifier may be absent (understood).²⁰

The definite marker with a following NUP may be deleted when a restrictive modifier is present (e.g. (29)).

To denote the whole (or the universe), the determiner needs to be a deictic marker (Dm, na 'that,' zhe 'this') or a definite marker (Ddef, na 'the'). And even if there is no such marker in the surface realization, it should be understood that such markers exist in the deep structure.

54. (a) (zhe) shige zai chuan li de ren si le sange
 the ten in boat person die three

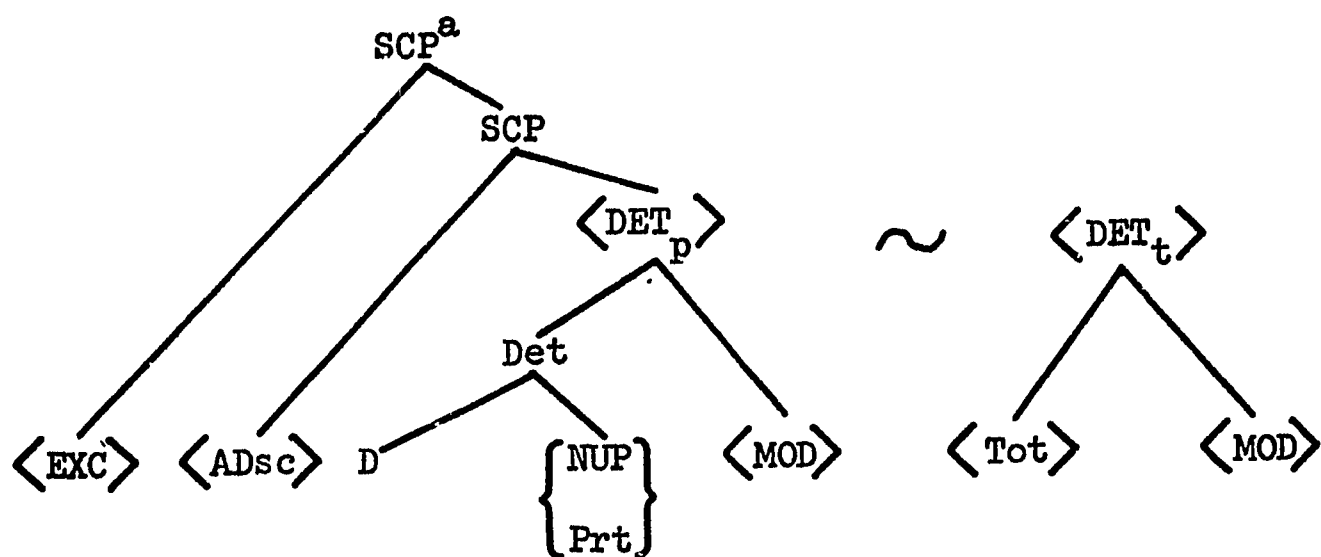
'Three of these ten persons in the boat died.'

(b) zai chuan li de (na) shige ren si le sange

'Three of the ten persons in the boat died.'

3.2.2. Scope

The SCP^a is expanded as



An excluding adverbial in the SCP is different from one in the UNV, though their components are similar, and though only one EXC is possible in a noun phrase.

55. (a) na shige ren chule Wang San yiwai quan dou qu le
 that ten person except all go

'All the ten persons went except Wang San.'

In (52) ten persons went; in (55), nine persons went. We regard the excluding adverbial in (52) as a limiting modifier to the universe and that in (55) as one to the scope. Unlike

the EXC in (52), that in (55a) can also be placed before the subject (or, more exactly, the determiner denoting the universe plus the noun) (55b), and at the end of the sentence (55c) without changing in meaning. Notice that when it is placed before nà shíge rén 'those ten persons,' no de is present as in (52).

55. (b) chúle Wáng San yiwai, nà shíge rén quán dou qù le
 'Except Wang San all of those ten persons went.'
 (c) nà shíge rén dou qù le, chúle Wáng San yiwai
 'All those ten persons went except Wang San.'

The main part of SCP may be either a determiner denoting totality (DET_t) or a determiner denoting partitivity (DET_p). The main reason for this division is that the former takes the adverb of scope (ADscp) dou, while the latter may take zhǐ 'only' as its adverb of Scope.

3.3. Determinative for totality

All the determinatives for totality (Tot) except quánbù and tongtong 'all' take the adverb of scope dou 'all' obligatorily. The dou here rarely has any meaning when totality words are present (i.e. not deleted).

56. <u>nàxiè xuésheng</u>	$\left\{ \begin{array}{l} \text{meiyi} + M \\ (M + M) \\ \text{quanbu} \\ (\text{tongtong}) \\ \text{dàbùfen} \\ \text{rènhe yi} + M \\ (\text{wúlùn nǎyi} + M) \\ (\text{meiyou bu}) \end{array} \right.$	<u>dou lái le</u>
		M = classifier

'Those students	$\left\{ \begin{array}{l} \text{every} \\ \text{all} \\ (\text{all}) \\ \text{most, or majority} \\ \text{any} \\ (\text{no matter which}) \\ (\text{no matter which}) \end{array} \right.$	all came.'
-----------------	---	------------

quánbù and its synonym tongtong may or may not take dou, and dou alone can be used instead of quánbù dou or quánbù, without difference in meaning.

It is clear that dou can be introduced through a transformation on the strength of the constituent Tot. Then quánbù (and tongtong) can be optionally deleted on the strength of dou. In this way dou need not be present in the Base.

Besides deriving tongtong from quánbù 'all,' we can derive wúlùn nǎyi + M 'no matter which' from renhe yi + M 'any' and reduplication of measure (M + M) from meiyi + M 'every + M' (e.g. meiyiben -- běnběn 'every běn'), since the pairs are synonymous.

The double negative used for emphasis upon the arbitrary sense of 'any' or 'each without exception' can be derived from renhe yi + M + dou (c). Here one of the negative markers goes with the SCP, and the other goes with the verb. Notice that no dou is allowed in a double negative construction.

57. (a) tushuguan li de renhe yiben shu ta dou kanguo le

library in any one book he all read

'He has read whichever book is in the library.'

(b) tushuguan li wulun nǎyiben shu ta dou kanguo le

library whichever book

'He has read whichever book is in the library.'

(c) tushuguan li meiyou yibenshu ta mei kanguo

no one book he not read

'There is no single book in the library that he has not read.'

58. (a) wode shu renhe yiben dou hen you jiazhi

my book any one all very valuable

'All my books are very valuable.'

(b) wode shu wulun nǎyiben dou hen you jiazhi

whichever one

'Whichever book I have is very valuable.'

(c) wode shu meiyou yiben mei you jiazhi

no one not

'None of my books is valueless.'

Since a verb can be negated in the Base, it is possible, after double negation is derived from the Tot renhe yi + M + dou, for a string to have three negative markers.

A double negative plus the negative marker which is given by the Base to go with the verb will not be grammatical until the two negative markers accompanying the verb are cancelled. (Cf. double negative in English.)

59. (a) renhe ren dou bukēn qu

any people all not willing go

'Everybody is not willing to go.'

(b) *meiyou yige ren bu bukēn qu

no one person not not willing go

'*Nobody is not unwilling to go.'

(c) méiyou yige rén kěn qù.

no one willing go

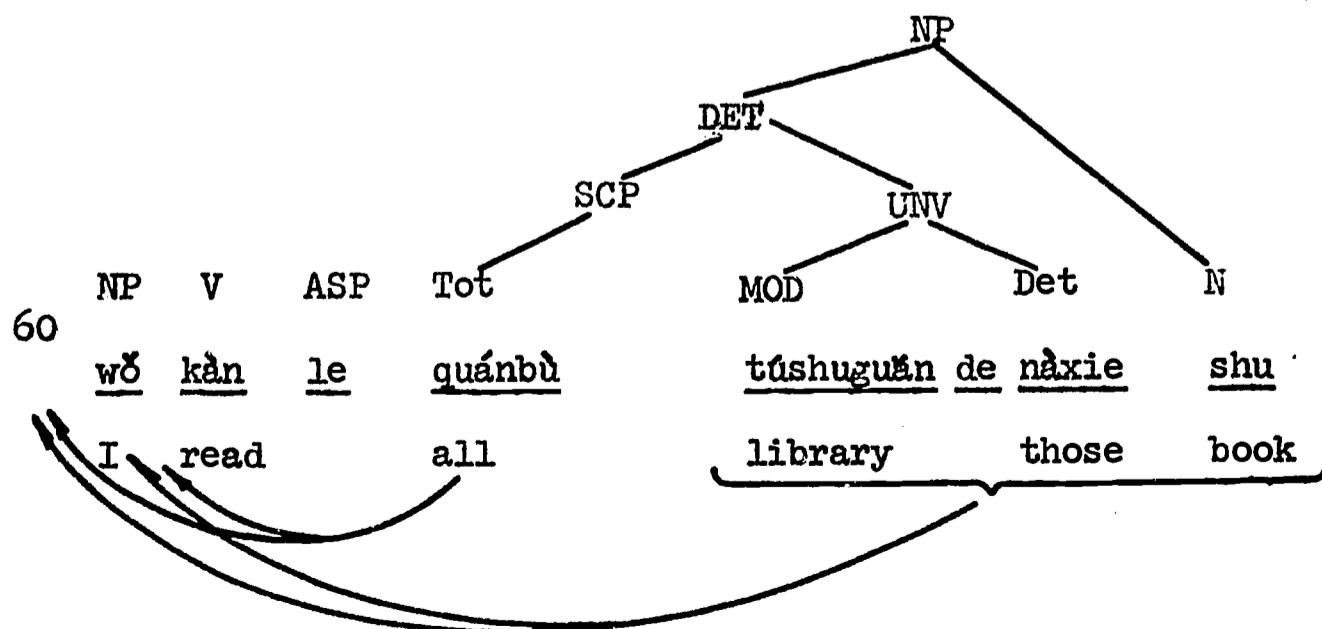
'No one is willing to go.'

3.3.1. Totality Determinative (DET_t) in an Object

In (57) the totality expressions occur in the object, whereas in (58) they occur in the subject. The question of the position of objects that contain totality expressions will concern us in the following paragraphs. We shall examine how totality expressions are placed before the verb (A), and then after the verb (B).

A. With a few exceptions, the object with a totality determinative should be placed before the verb, either before the subject or after it (which may be preceded or followed by a time word).

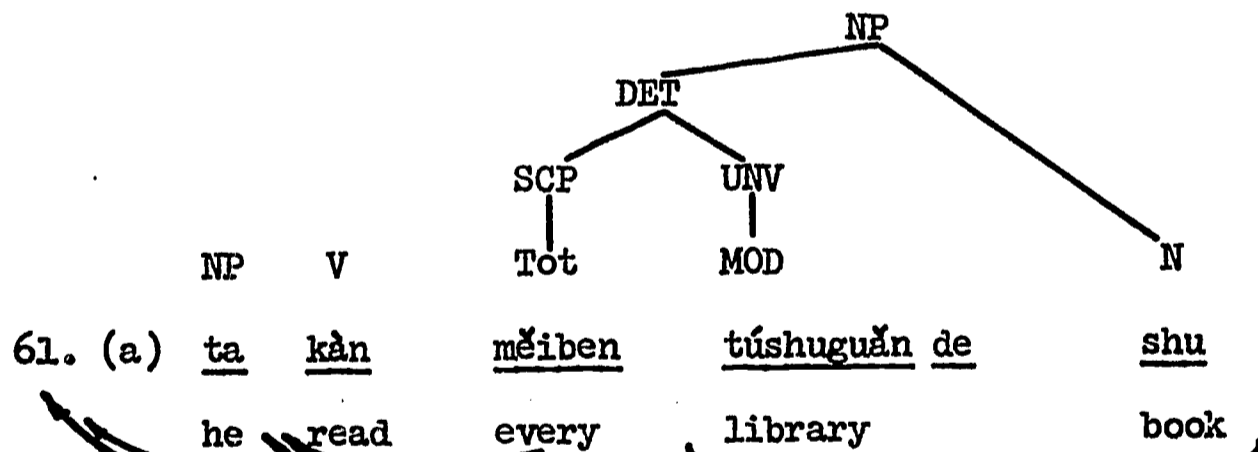
(1) Where a Det is chosen as part of the universe, the Tot is generally put after the noun head or after the subject. In the latter case the whole noun phrase is separated by the subject.



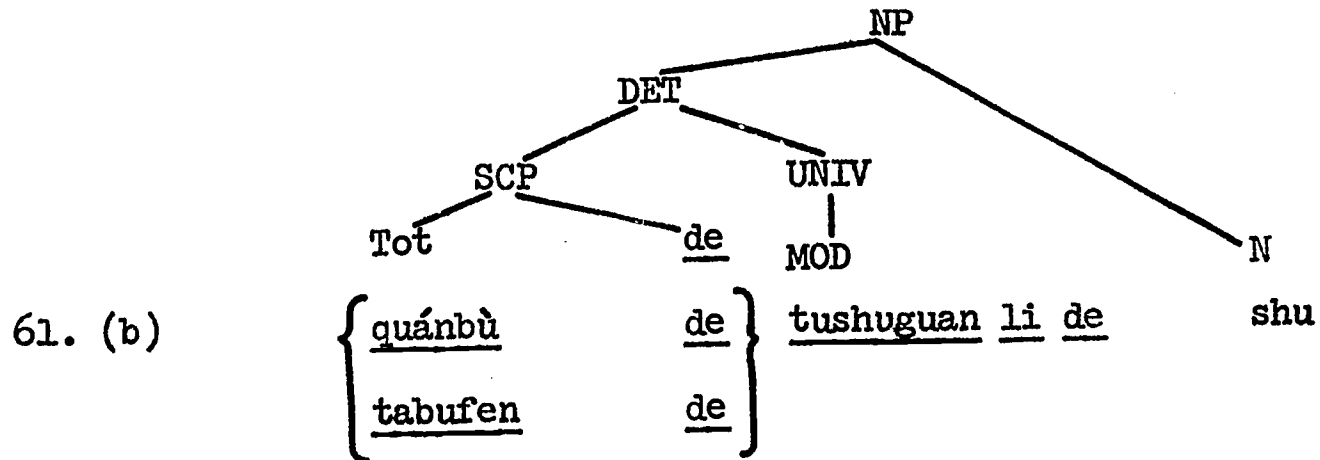
Since SCP normally does not precede UNV, the arrangement *SCP Subject UNV V ASP should be excluded. This will mean that if SCP precedes wo, the subject in the above, UNV must also precede wo.

When quánbù 'all,' etc. is chosen, fánshi, or sǔoyoude can be used for emphasis on the totality, and quánbù can be deleted, so that fánshi or sǔoyoude, together with the obligatorily introduced dou, signifies totality without quánbù.

(2) Where a Det is not chosen as part of the universe, Tot may be placed in three positions: a) before the head noun of the object; b) after it before the subject; c) before the verb.

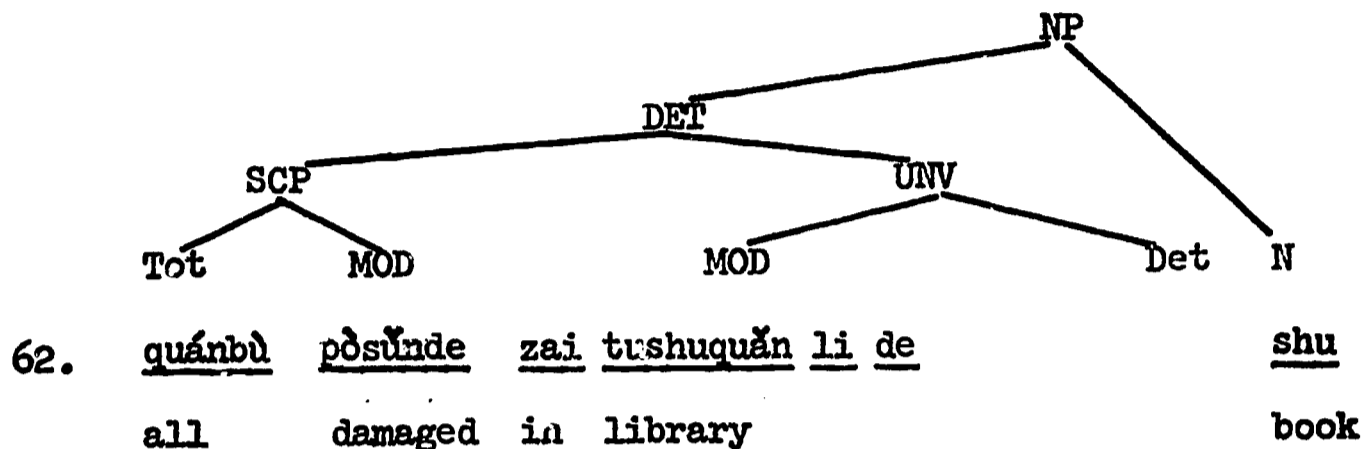


In case the Tot is quánbù 'all' or dàbufen 'most,' its position in the derived string has another possibility, i.e. before the UNV, or in the order which appears in the Base. There may be an insertion of de.

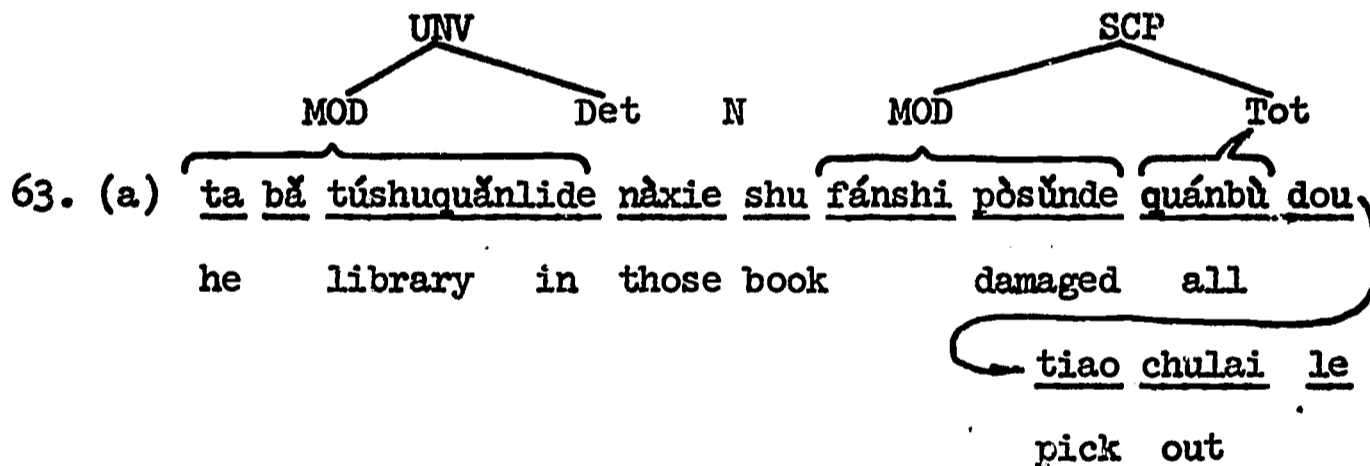


SCP preceding UNV, however, is very rare and is probably limited to postverbal position.

(3) When a MOD is chosen as part of SCP, this MOD can be regarded as that part of the determinative which constitutes the secondary universe to which Tot is the scope; i.e. Tot is the scope qualifier of the sphere set up by the MOD (which is a restrictive modifier to the UNV), rather than that of UNV directly. But a more linguistically oriented interpretation of the meaning of the two categories, Tot and MOD, will be that they both describe the scope of the universe that has an actual effect on or is actually affected by the action denoted by the verb.²¹



In this case the main part of the object (generally UNV + N) is placed before the subject, unless pretransitive is used before the whole object as in (62). In the latter case the order is



'He picked out all the damaged books in the library.'

When the subject is placed after the main part of the object, it has two possible positions: before MOD or before Tot. When it is placed before the MOD, BA can be used. When it is before the Tot, fánshi or sǔoyǒu can be added before MOD.

63. (a) túshuguǎn li de nàxiē shu ta ba pòsǔn de quán dou
 library in those book he damaged all
tiao chulai le
 pick out

'Among those books in the library, he picked out all
 the damaged ones.'

(b) túshuguǎn li de nàxiē shu $\left\{ \begin{array}{l} \text{fánshi} \\ \text{sǔoyou} \end{array} \right\}$ pòsǔn de ta quán
dou tiao chulai le

'Among those books in the library, he picked out all
 the damaged ones.'

B. An object with Tot may remain after the verb when SCP does not dominate a MOD, and when Tot is rènhe 'any,' quánbù 'all,' or dàbùfen 'most.' When an object remains in this position, no dou can be introduced on the strength of the Tot. In this position sǔoyoude can be used in place of quánbù without change of meaning.

It should be mentioned here that an object with a Tot is apt to have its main part (i.e. UNV + N) transposed before the verb. Both the following sentences sound somewhat Western-flavored. The Tot can be put after the UNV or after the head noun.

64. (a) ta dúguo túshuguǎn li de $\left. \begin{array}{l} \text{quánbùde} \\ \text{renhe yiben} \\ \text{dabùfēnde} \end{array} \right\}$ shu
 read

'He has read $\left\{ \begin{array}{l} \text{all the books} \\ \text{every book} \\ \text{most of the books} \end{array} \right\}$ in the library.'
quanbu

(b) ta duguo tushuguan li de naxie shu de renhe yiben
dabufen

'He has read $\left\{ \begin{array}{l} \text{all the books} \\ \text{every book} \\ \text{most of the books} \end{array} \right\}$ in the library.'

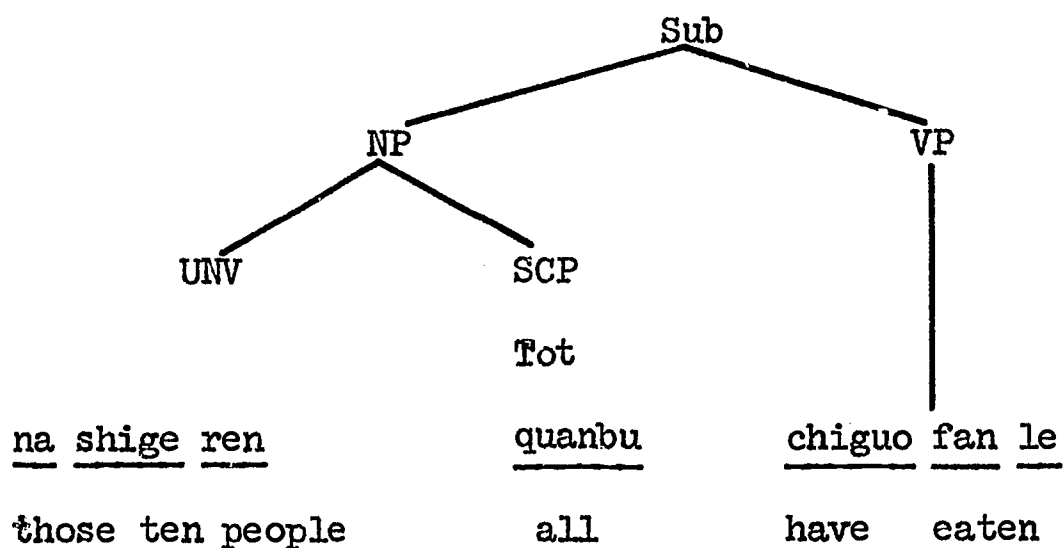
Since meiyou ... bu 'no ... not,' wulun na yi + M 'whichever,' tongtong 'all,' etc., which are derived from renhe yi + M 'any,' etc., do not occur after a verb, these transforms should be avoided in this position. The best way to achieve this seems to be to put the T-rule for deriving these transforms after the T-rule that transposes the object before the verb.

3.3.2. Totality determinative in a subject

Since a subject generally occurs before the verb, its position in the sentence is less complicated than in the case of objects.

The elements of a noun phrase chosen as the subject of a sentence have among themselves an order similar to that of the

elements of an object. The UNV and SCP in a noun phrase used as the subject may also be separated by other elements (chiefly time and place expressions).



Unlike the partitive SCP, which can be separated from the UNV by the main verb, a totality SCP in a noun phrase functioning as the subject must always remain before the verb.

3.3.3. Negation of totality

Negation of totality has to be recognized if we want to account for the following pairs.

65. (a) tamen méiyóu quánbù lái

they no all come

'Not all of them came.' ('Some came.')

(b) tamen quánbù méiyóu lái

'All of them did not come.' ('None of them came.')

66. (a) tamen bù dou yào lái
 they not all want come

'Not all of them want to come.'

(b) tamen dou bù yào lái

no want

'All of them do not want to come.' (i.e. want not to come.)

Negation of the totality should be taken as denoting 'not all' (but some), whereas negation of the verb or auxiliary should mean a complete non-action of the subject or object.

It should be noted that the negative marker here may also be subject to morphophonemic change in the presence of the aspect marker (ASP).²²

It should also be mentioned that although most of the Tot's can be negated, none of the partitive can be negated, unless the negated partitive is yi + M 'one + M,' or unless the scope occupies the whole predicate.

67. (a) nàxie ren méiyóu $\left\{ \begin{array}{l} \underline{m\check{e}ige} \quad \underline{dou} \\ \underline{dabufen} \quad \underline{dou} \\ \underline{henduo} \end{array} \right\}$ yao lai

'Not every one of these people wants to come.'

" most " " " want " "

'Not many of these people want to come.'

(b) *nàxie ren meiyou wuge yao lai

those people not five want come

The negation of totality means non-totality, but the negation of a partitive other than one does not mean totality. As can be seen from (67a) and the following example, the negation of a partitive must occupy the whole predicate, and the rest of the sentence must be nominalized.

67. (c) naxie ren lai de meiyou wuge

those people come no have five

'Among those people not more than five came.'

'Not more than five of those people came.'

(d) nàxie ren lai de bu shi zhe wuge

Neg be

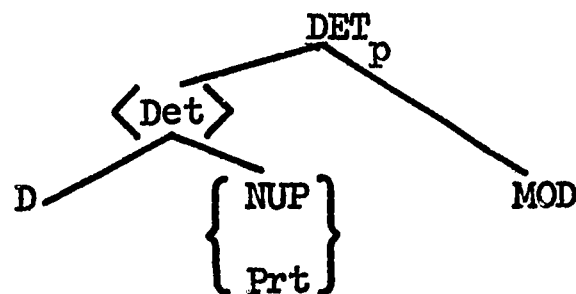
'Among those people, those who came are not these five.'

In fact, as has been mentioned, the first negative marker in (57c), (58c), and (59c) is derived from the double negation of totality and can be regarded as a bearer of emphasis on mei 'every' or renhe 'any.' A number greater than one is impossible in the context seen in (57c), (58c), and (59c). We shall soon discuss in greater detail the relationship between negation

of totality, partitive, and the verb.

3.4. Determinative for partitive (DET_p)

In the Base DET_p is expanded as follows:



where partitive (Prt) includes shǎobùfen 'a small part,' yíbùfen 'a part,' fraction (FRC)²³ etc. and determinant (D), yǒu 'some,' dì '-th,' zhè 'this,' nà 'that.'

3.4.1. DET_p in the object

The positions of DET_p are even more variable than those of DET_t (determinative for totality). Again we will be concerned first with the positions of elements of a noun phrase functioning as the object.

A. When a Det is chosen for the UNV of an object noun phrase with a determiner for partitive (DET_p), there is a tendency to split the noun phrase into two parts, UNV + N on the one hand, which is shifted to precede the subject, and SCP on the other, which may remain after the verb (68b) or be transposed before the verb (c)²⁴ or the subject (d).

68. (d) túshuguǎn lǐ dě nàxiē shū zhǐ yǒu $\left. \begin{array}{l} \text{xiǎobùfēn} \\ \text{yìxiē} \\ \text{yībǎn} \\ \text{sānběn} \end{array} \right\}$ wǒ kànguó

But all these elements except ADscp may remain after the verb without being separated by external elements.

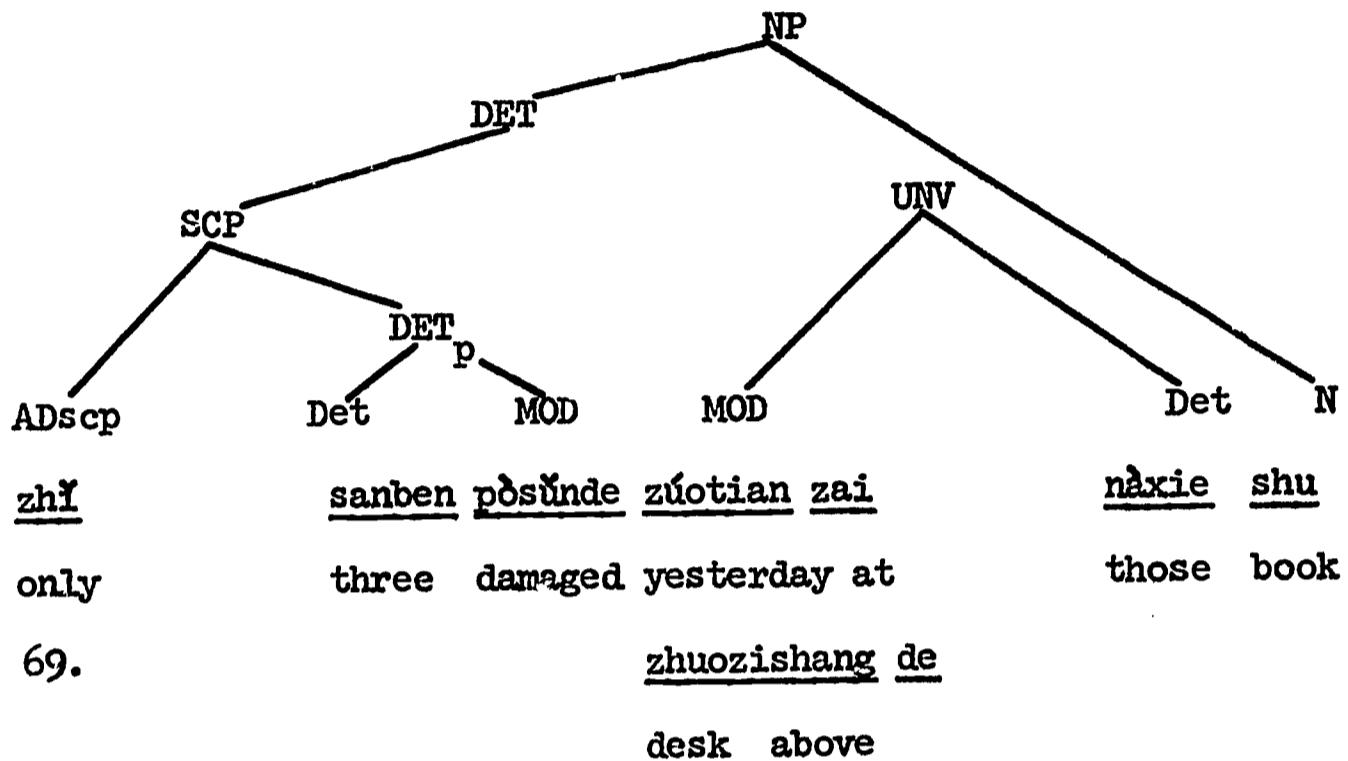
(e) wǒ zhǐ kànguó $\left. \begin{array}{l} \text{xiǎobùfēn} \\ \text{sānbēn} \end{array} \right\}$ túshuguǎn lǐ dě nàxiē shū

'I only read $\left\{ \begin{array}{l} \text{a small part} \\ \text{three} \end{array} \right\}$ of the books in the library.'

(f) wǒ zhǐ kànguó túshuguǎn lǐ dě nàxiē shū dě $\left. \begin{array}{l} \text{xiǎobùfēn} \\ \text{yìxiē} \\ \text{yībǎn} \\ \text{sānběn} \end{array} \right\}$

In (f) the whole noun phrase is also divided by dě into two parts, the order of which is still UNV + N dě DET_p. It can be understood that by most grammarians whose chief interest is in the surface structure, DET_p is regarded as the head, whereas the rest is taken as the attribute of the nominal construction.

(See 3.7.3. for a discussion of this alternative.)



Here Det and MOD should be regarded as two qualifiers describing the SCP. But the two may or may not refer to the same set of objects. The two usually go together in the given order. (For a discussion of whether a MOD should be a part of UNV or SCP see 3 5.5.). In this case UNV + N is usually placed before the subject, and the two elements of DET_p, Det_p and MOD, may be shifted before the verb or even the subject.

70. (a) zúotian zai zhuozishang de nàxie shu wo zhǐ

yesterday on the desk those book I only

<u>xiubǔ</u>	}	<u>sanben</u>	}	<u>pòsǔn</u> <u>de</u>
		<u>yíbùfen</u>		
repair		three	}	damaged
		a few		

'I repaired only $\left\{ \begin{array}{l} \text{three} \\ \text{a few} \end{array} \right\}$ damaged books among those

which were on the desk yesterday.'

70. (b) zúotian zai zhuozishang de nàxie shu wo bǎ pòsǔn de

zhǐ xiubǔ le $\left\{ \begin{array}{l} \text{sanben} \\ \text{yíbùfen} \end{array} \right\}$

'Among the books which were on the desk yesterday I

repaired $\left\{ \begin{array}{l} \text{three} \\ \text{a few} \end{array} \right\}$ of the damaged books.'

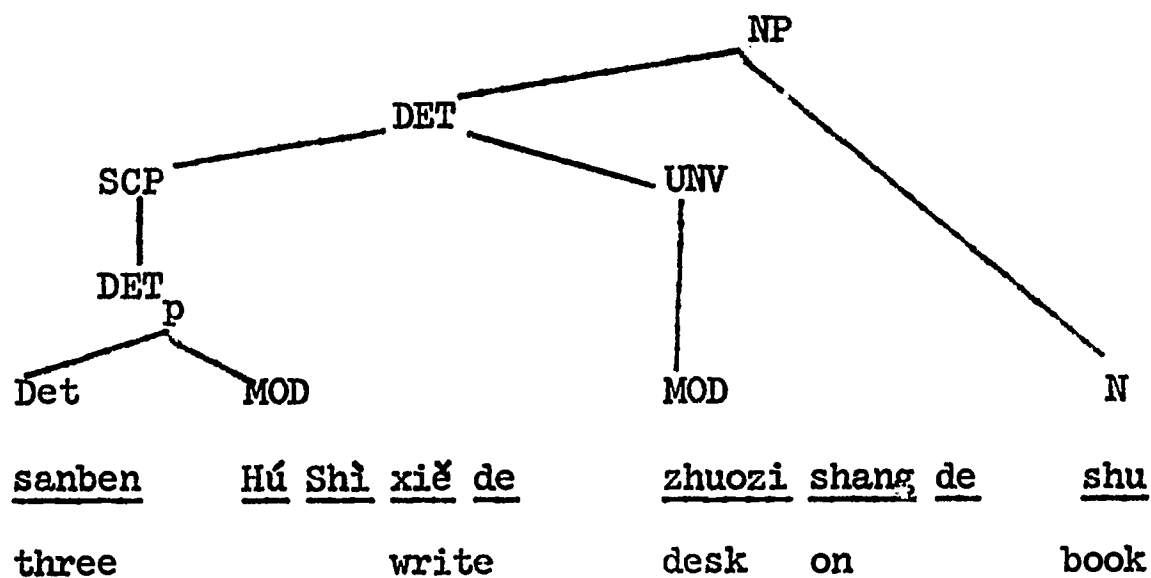
(c) zúotian zai zhuozishang de nàxie shu pòsǔn de wo zhǐ

xiubǔ le $\left\{ \begin{array}{l} \text{sanben} \\ \text{yíbùfen} \end{array} \right\}$

'Among the books which were on the desk yesterday I

repaired $\left\{ \begin{array}{l} \text{three} \\ \text{a few} \end{array} \right\}$ of the damaged ones.'

B. When no determiner is chosen for the universe of an object noun phrase no transposition is necessary, unless UNV and SCP each dominate a MOD.



71. zhuozi shang de shu wo dú le sanben Hú Shì xiě de
 desk on book I read three write

'Among the books on the desk I read three written by Hu Shi.'

If there is one MOD in a terminal string and no discontinuity in NP, we are confronted with the problem of determining to which the MOD is to be attached, UNV or SCP.

72. (a) shu wo zhǐ mǎi le sanben Hú Shì xiě de
 book I only buy three write

'As to books, I bought only three written by Hu Shi.'

- (b) Hú Shì xiě de shu wo zhǐ mǎi le sanben
 write book I only buy three

'As to books written by Hu Shi, I bought only three.'

- (c) wǒ zhǐ mǎi le sanben Hú Shì xiě de shu

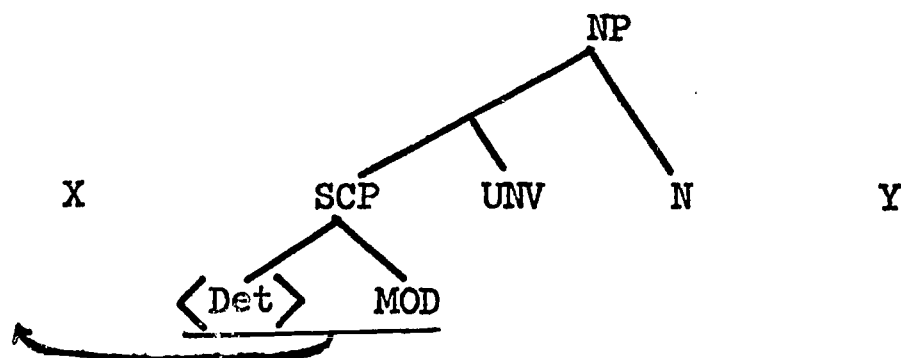
'I only bought three books written by Hu Shi.'

That Hu Shi xiě de 'written by Hu Shi' in (a) is a part of

the SCP is obvious, for the topic is books and not books written by Hu Shi. A comparison of (a) and (b), where MOD is dominated by UNV, will make the point clear.

One may assign the Hu Shi xie de in (c) to UNV or SCP indifferently. Unnecessary ambiguity of this sort should be avoided by writing a grammar that will assign it uniquely to UNV.

This can be easily achieved by postulating that any SCP that dominates MOD should be separated from UNV + N.



An important difference exists between (72c) and (73).

73. wǒ mǎi le Hú Shì xiě de nà sanben shu
 buy write three book

'I bought the three books written by Hu Shi.'

The nà sanben in (73) is definite, a part of UNV, whereas the sanben in (72c) is indefinite and part of SCP. According to (73), Hu Shi wrote only three books (which are the UNV) unless the nà is a deictic marker. According to (72c), sanben is merely a part of indefinitely many books written by Hu Shi.

The partitive scope (DET_p), especially when a definite or deictic marker is chosen, tends to occupy a more prominent position (i.e. the main predicate) in a sentence, as in the following:

74a Hú Shì xiě de shu wo mǎi de zhǐ yǒu $\left. \begin{array}{l} \underline{\text{sanben}} \\ \underline{\text{nà sanben}} \\ \underline{\text{zhè sanben}} \\ \underline{\text{jǐben}} \\ \underline{\text{yībùfen}} \end{array} \right\}$

'Among the books which are written by Hu Shi there are

only $\left. \begin{array}{l} \text{three} \\ \text{those three} \\ \text{these three} \\ \text{a few} \\ \text{a part} \end{array} \right\}$ that I bought.'

74b wo mai de Hu Shi xie de shu zhi you $\left. \begin{array}{l} \underline{\text{sanben}} \\ \cdot \\ \cdot \\ \cdot \end{array} \right\}$

'The number of books written by Hu Shi which I bought was only three.'

In both cases the DET_p only assumes the main predicate

headed by the optional ADscp zhi 'only' and verb you 'have, there is/are'; and what precedes the verb you is a nominal functioning as the subject.

Compare (74a, b), where the numerals are the predicate, with (76a, b), where the main verb is clearly the mai 'buy.'

76a wo zhi mai le $\left. \begin{array}{l} \text{sanben} \\ \text{nā sanben} \\ \text{zhe sanben} \\ \text{nā jiben} \\ \text{yibufen} \end{array} \right\} \text{Hu Shi xie de shu}$

'I bought only $\left. \begin{array}{l} \text{three} \\ \text{those three} \\ \text{these three} \\ \text{a few} \\ \text{a part} \end{array} \right\}$ of the books written by
Hu Shi.'

76b Hu Shi xie de shu wo zhi mai le $\left. \begin{array}{l} \text{sanben} \\ \cdot \\ \cdot \\ \cdot \end{array} \right\}$

(The same as 70a)

How the relationship between these sentences can be indicated in our grammar is an interesting question. It is obvious that (73) and (74) are similar with respect to who bought how

many of what. But it is also obvious that they are different with respect to what is being talked about and what the point of the message is.

3.4.2. DET_p in the subject

The principle that SCP and UNV + N may be separated by the main verb also holds true with the subject noun phrase, in case the verb belongs to a class of intransitive verbs which we may call momentary verbs. Verbs with this feature usually denote 'to appear,' lái, 'to disappear,' qu, 'to change from one state to another,' huài, làn, sǐ.

ta qù le 'He went.'

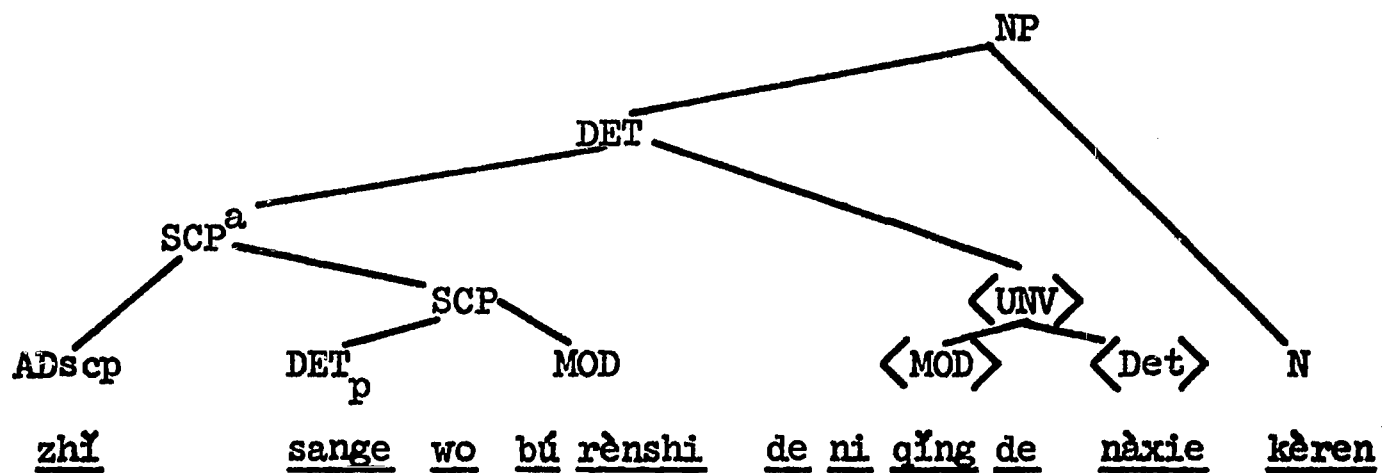
ta sǐ le 'He died.'

They are not continuous in that they do not take the progressive aspect: *tade qianbǐ zhèngzai duàn zhe 'His pencil is breaking.' These verbs, plus the perfective aspect le, denote the state or quality which is a result of the effect of action denoted by the verb for their subject.

Whether such a separation is optional or obligatory is chiefly determined by what elements are chosen for the noun phrase, as in the cases of totality and in the cases of object.

A. If MOD is chosen for the SCP, its separation with UNV + N is obligatory, i.e. the SCP should be shifted either to follow

the verb (77) or to precede the verb (78). The MOD and Det in UNV may be present (77b, c) or absent (77a).



77a kèrén zhǐ lái le sāngē wǒ bú rènshi de

guest only come three I not know

'Only three of the guests unknown to me have come.'

77b nǐ qǐng de nà shíge kèrén zhǐ lái le sāngē wǒ bú rènshi de

you invite ten guest

'Among the ten guests you invited only three unknown to me came.'

77c nǐ qǐng de kèrén zhǐ lái le sāngē wǒ bú rènshi de

'Among the guests you invited only three unknown to me came.'

If the Det in SCP is definite, the two elements of SCP, Det + MOD, can permute.

77c nǐ qǐng de kèrén lái le wǒ bú rènshi de nà sāngē

'Among the guests, those who came are the three unknown to me.'

Occurrence of the SCP after the verb, however, is limited to cases where the verb is not accompanied by any auxiliary verb, negative marker, or aspect marker, except le (completive) or guo (experience).

77d *kèren bu lái sange wo bu rènshi de

guest not come three I not know

77e *kèren kěn lái sange wo bu rènshi de

willing come

77f *kèren bu néng lái sange wo bu rènshi de

can come

In all these cases the SCP is placed before the verb. The UNV + N and SCP may be separated by ADscp zhǐ 'only,' a time expression, etc.

78a kèren zhǐ you sange wo bú rènshi de bù lái
 guest only three I not know not come

'(Only) three guests whom I do not know are not coming.'

(unknown to me)

78b kèren zhǐ you sange wo bu rènshi de bu kěn lai
 willing

'(Only) three guests whom I do not know are not willing to come.'

78c kèren zhǐ you sange wo bu rènshi de lái le

'(Only) three guests unknown to me came.'

Following the principle that no MOD of the SCP remains before the head noun, the MOD in the following will be regarded as part of the UNV uniquely.

79a wǒ bǔ rènshi de kèren lái le sange

'Three guests whom I do not know came.'

79b yǒu sange wo bu rènshi de kèren lai le

have

'Three guests whom I do not know came.'

B. If MOD is not chosen for SCP, DET_p may occur in three positions if certain conditions are met.

80a yǒu sange wo qǐng de kèren lái le

have three I invite guest come

'Three of the guests that I have invited have come.'

80b wǒ qǐng de kèren you sange lái le

'Among the guests I invited, three have already come.'

80c wǒ qǐng de kèren lái le sange

'Among the guests I invited, three have already come.'

80d wǒ qǐng de kèren dangzhong de sange lái le

'Among the guest I invited, three have already come.'

If the DET_p is before the verb and after the noun, the

connecting formative may be a localizer (zhizhong, dangzhong, zhongjian, zhong, li (tou) 'among, in') and/or yǒu or de. But de is impossible if the DET_p is accompanied by zhi.

The presence of ADscp, Det in the UNV, and aspect marker serves to limit the positions in which DET_p may occur. Here are three examples:

(1) Other conditions being the same, if ADscp and the aspect marker le are present, the only possible position for DET_p is after the verb.

81 wǒ qǐng de kèren zhǐ lái le sānge

I invite guest only come three

'Among the guests I invited, only three have already come.'

(2) If ADscp and the aspect marker guo are present, all three positions are possible for DET_p.

(3) If Det is chosen for the UNV, DET_p cannot be put before UNV + N.

82 *zhè sānge ta qǐng de nàxiē kèren lái le

those

3.5. Scope adverbs and time concepts

3.5.1. Meaning of the scope adverbs

As has been stated, the category SCP denotes how large the sphere of the whole (denoted by UNV) that is relevant to the

action or states denoted by the main verb (including the adjective) is.

This part-and-whole or scope-and-universe relation is accompanied by adverbs of impression on scope (ADscp), zhǐ 'only' and dou 'all,' which, in a sense, express the impression or attitude of the speaker towards such a relation. Some expressions for totality (e.g. měige 'every,' rènhe 'any') are more emphatic than others (e.g. quán 'all'), though they are logically equivalent. Hence dou, which may be considered as an emphatic on totality, is obligatory for the former and optional for, or even interchangeable with, the latter.

The distinction between Tot and Prt is linguistic (or psychological) rather than logical, since dàbùfen 'majority, most,' hěnduo 'many, much' are included in Tot on the basis of the fact that they take dou. When dàbùfen, hěnduo do not take dou, they behave very similarly to DET_p, since they can be placed after the verb, while the rest of the noun phrase appears before the verb. We derive these from two sources: Tot and DET_p. When they are derived from DET_p, their combination with zhǐ should be prevented, since

83 *wǒ zhǐ kàn le hěnduo

*'I only read many,' is ungrammatical.

A partitive determiner without zhǐ 'only' can be regarded as an objective presentation of the relation between the whole and the part. When zhǐ 'only' is used, the implication is that the speaker regards the part as smaller than some implied standard or too small, in relation to what he expected.

3.5.2. Positions of dou and zhǐ

As can be seen from the examples given above, dou 'all' always occurs before the verb, regardless of how its associated noun is positioned. An important condition regarding the appearance of dou is that all other elements of the noun phrase in question should precede dou in the surface realization.

zhǐ may occur in two positions: immediately before the main verb if DET_p with which it is associated is placed after the main verb, BA, or BEI, and immediately before the DET_p if the DET_p occurs before the verb. In the latter case there is usually an insertion of you between the two elements. (Other views concerning this will be given in 3.7.4.)

Between the ADscp dou or zhi and the main verb there may be some adverbial, the BA phrase, or the BEI phrase.^{25a}

3.5.3. Scope mingled with time dimension

Since verbs may be accompanied by aspect markers and time adverbs, it is to be expected that time conceptions can

be introduced in the whole-part relationship.

In the following, zhǐ 'only' and yǐjing 'already' are almost antonyms.

84a kèren zhǐ lái le sange^{25b}

guest only come three

'Only three of the guests have come.'

84b kèren yǐjing lái le sange

already

'Three of the guests have come already.'

zhǐ indicates that the scope is too small; yǐjing implies that the scope is greater than what has been or what could have been expected.²⁶ But yǐjing is basically a time expression, and it can cooccur with zhǐ or dou.

85a kèren yǐjing lái de zhǐyou sange

guest already come only three

'Only three of the guests have come already.'

85b kèren yǐjing dou lái le

all

'All of the guests have already come.'

The antonym of yǐjing, hái 'again, re-':

86a kèren you sange hai yao lái

still

'There are still three other guests coming.'

has scope reference when it is combined with the negative (b), since such a sentence is equivalent to one that has DET_p modified by excluding: the adverb hái 'still, besides'²⁷ (c).

86b kèren you sange hai méi lái
still not

'Three of the guests have not come yet.'

86c kèren hai you sange méi lái

'Three of the guests have not come yet.'

As a matter of fact, the cooccurrence of the hai 'again, re-' and hai 'still' is redundant, and one of them must be deleted for the sentence to be grammatical.

3.5.4. Chains of wholes and parts

In this section we shall discuss the universe-scope relationship in contrast with a chain of wholes and parts. Consider the following four sentences.

87a [zai tushuguan li] you [shiwàn ben] shu
A a

in the library have 100,000 book

'There are 100,000 books in the library.'

87b zhe shiwàn ben shu dangzhong you [wuqian ben] shi
among 5,000^b be

[yong zhongwen xie de]

B

Chinese written in

'Among these 100,000 books are 5,000 copies written in Chinese.'

(c) zhe wuqian ben shu dangzhong you [yibai ben] shi [youguan
c c
yufa de].

'Among these 5,000 books are 100 copies about grammar.'

(d) zhe yibai ben shu dangzhong you [sanben] shi [zui zhuyao zui
d D
three most important and
rongyidong de]

D cont'd

easiest understand

'Among these 100 books these are three copies which are most important and easiest to read.'

When more than one of these five sentences are put into a noun phrase, we have a chain of wholes and parts.

88a [ta] xiang kankan tushuguan li de na shiwan ben shu

'He wants to see the 100,000 books in the library.'

88b ta xiang kankan tushuguan li de yong zhongwen xie de na wuqian ben shu

'He wants to see the 5,000 books which are in the library and written in Chinese.'

In (88c)²⁸ we have all four sentences (87a-d) put into one noun phrase. (In the following presentation there should be de after each occurrence of A.)

88c ta xiang kankan A + B + C + D + na + d + shu

'He wants to read the three books which are in the library, written in Chinese, about grammar, most important and easy to read.'

Notice that the chain is not broken (i.e. not separated by elements outside the NP), and the numeral phrase is concomitant with D, which is the most restrictive modifier, that is, the description of the smallest set. It is to be expected that the set referred to by the numerals, a, b, c, d, and the set referred to by the relative clauses A, B, C, D may have different kinds of relations, i.e. they may (e.g. (c) or may not (e.g. A + d + N tushuguan li de sanben shu 'three books in the library') describe the same set of objects.

Here are some remarks about such an unbroken chain.

(1) Not more than one numeral phrase is possible. All the rest should be deleted.

89a A + B + C + c + N

(zai tushuguan li de, yong zhongwen xie de, youguan yufa de
yibai ben shu)

(The 100 books which are in the library, written in Chinese, and about grammar)

89b *A + a + B + C + c + N

(*zai tushuguan li de shiwan ben yong zhongwen xie de, youguan yufa de yibai ben shu)

It may be argued that (b) is not acceptable because it is too long. The argument is certainly not valid, since we have (c), which is shorter than (a), and yet is not grammatical.

89c *a + A + b + N

*shiwan ben tushuguan li de wuqianwan ben shu

We do have

a + A + N + de + b

shiwan ben tushuguan li de shu de wuqian ben

5000 books { ^{out of} } the 100,000 books of the library
 { in }

But this is a case of a chain of wholes and parts broken into two parts, UNV and SCP.

UNV [a + A + de + N] + de + SCP [b]

(2) The numeral phrase should be concomitant with the most restricted modifier that precedes the head noun (i.e. describing the same set as is described by the latter)

(i) (See reasons for this in (3)) or one indicating a quantity less than the most restricted modifier.

If the numeral phrase denotes a quantity smaller than that of the most restricted modifier, the numeral phrase will be a restrictive qualifier (i), rather than a concomitant one. Compare the translations for (i) and (ii).

(i) $b + A + B + N$ 'the 5,000 books which are in the library and written in Chinese'

(ii) $c + A + B + N$ '100 of the books which are in the library written in Chinese'

Since (i) and (ii) are identical in linear presentation (NUP + MOD + N), ambiguity arises as to whether NUP gives concomitant (or supplementary) description with the MOD or a restrictive qualification to the MOD.²⁹ (Henceforth we shall use the terms coordination or concomitance for (i), and subordination or non-concomitance for (ii)³⁰.)

a) $A + a + N$ 'the 10,000 books in the library'

b) $A + b + N$ '5,000 books of the books in the library'

c) $*A + a + B + N \Rightarrow$

c') $A + a + N + \underline{\text{dangzhong}} + \underline{\text{de}} + B$

those of the 100,000 books in the library that are written in Chinese

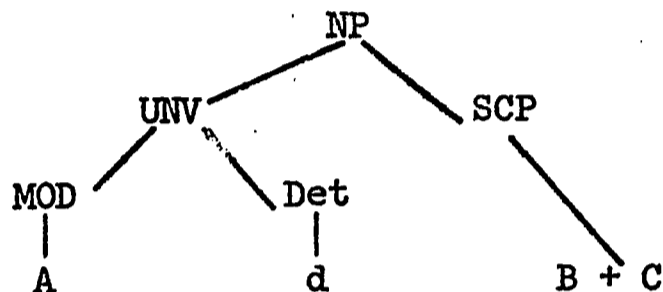
d) $*A + a + B + C + N$

d') $A + a + N + \underline{\text{dangzhong}} + \underline{\text{de}} + B + C$

those of the 100,000 books in the library that are

written in Chinese and about grammar

But we feel that there is a split in NP(c) and (d), and the deep structures should be



instead of a chain of wholes and parts.

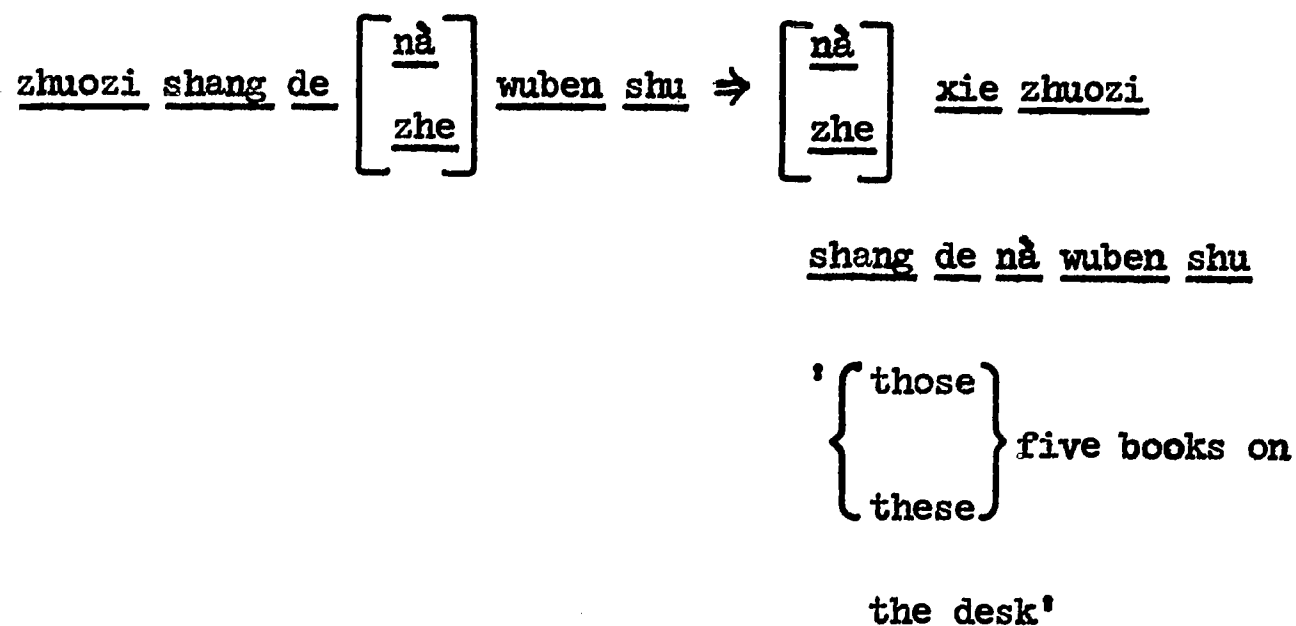
(3a) Since the numeral phrase is always the one for the most restrictive modifier, the numeral phrase, unless it takes the definite marker, can be shifted to any other position within the noun phrase, except after the head noun, without affecting the meaning.

$$A + B + C + D + d + N \Rightarrow d + A + B + C + D + N \Rightarrow$$

$$A + B + C + d + D + N \Rightarrow A + d + B + C + D + N \Rightarrow$$

$$A + B + d + C + D + N$$

Though there is a tendency for a numeral phrase with a deictic marker to head the noun phrase, this does not seem to be a rule. There are cases in which Det [Dm + NMP] do not shift together. Such a numeral phrase usually takes an additional definite marker. Hence, Dm + MOD + Ddef + NMP + N should be understood as a transform of MOD + Dm + NMP + N.

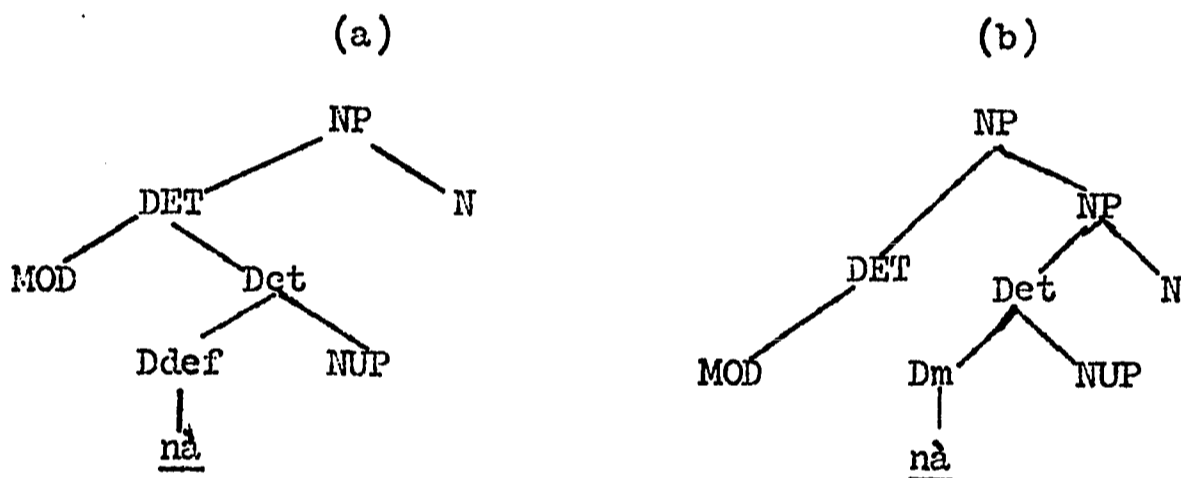


3(b) The numeral phrase with the definite marker (Ddef) should always be placed immediately before the head noun, and the definite marker can be deleted without affecting the reference, if Ddef + NUP + N is the topic of a sentence. Hence the Ddef + NUP in MOD + Ddef + NUP + N can only be a concomitant qualifier with the MOD, and can never have any independent restrictive function. To be sure, it is the MOD that is the restrictive modifier.

A numeral phrase denoting a quantity smaller than the most restricted modifier never takes the definite marker. This amounts to regarding the nà attached to such a numeral phrase uniquely as

Dm. This interpretation is reasonable because the phrase $n\grave{a}$ + NUP is the most restrictive in the DET, and the MOD is merely descriptive.

Since $n\grave{a}$ can be the indefinite marker (Ddef) or a deictic marker (Dm), this amounts to saying that MOD + $n\grave{a}$ + NUP + N is ambiguous only in two ways, (a) or (b).



The indefinite marker is always deleted unless Det [Dind + NUP] appears at the very beginning of a noun phrase and the noun phrase appears before the predicate. Furthermore, since a numeral phrase may have the definite marker deleted, ambiguity exists in MOD + NUP + N: it may be (i) C + c + N 'the 100 books written on grammar, etc.' or (ii) C + d + N 'three of the books written on grammar, etc.'

(4) The order A + B + C + D should be maintained to indicate the intended sequence of wholes and parts. B + A + N may mean either that B is the whole and A is the part, or that

B and A are in coordination. (Cf. the two conjoined modifiers in zuizhongyao 'most important' and zuirongyidude 'easiest to read,' conjoined by er 'and, at the same time,' where the conjunction makes it impossible to interpret one of the two modifiers as subordinated.)

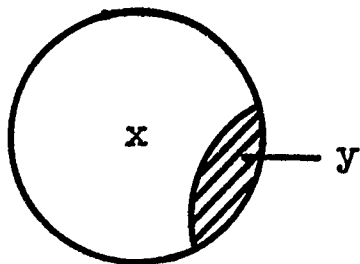
So far as reference is concerned, the following three expressions may be identical, since x, y, and z are identical.

a) zai tushuguan li de yong zhongwen xie de shu

x

y

'the books in the library that are written in Chinese.'

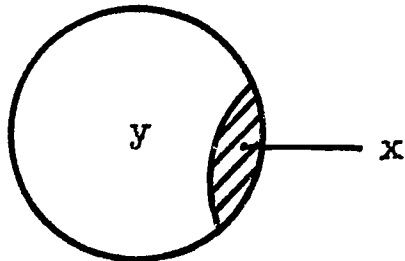


b) yong zhongwen xie de zai tushuguan li de shu

y

x

'the books written in Chinese that are in the library'



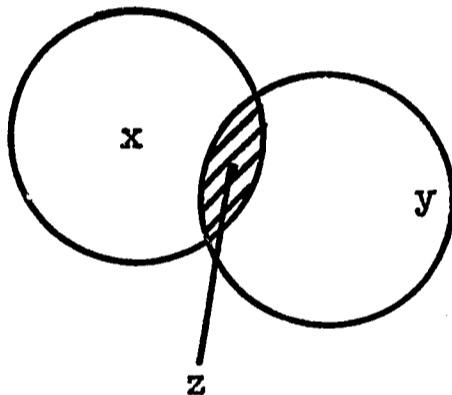
c) zai tushuguan li de yong zhongwen xie de shu

x

y

z

'the books that are in the library and written in Chinese.'



In (a) reference is made to all the books in the library (x), and then the books written in Chinese that are in the library (y). In (b) it is just the opposite: 'the books that are written in Chinese (y) are first mentioned and then the books in the library among those books (x). It seems to me that interpretations like (c) rarely occur in the minds of Chinese speakers. (See Introduction for another interpretation.)

(5) The most restricted modifier(s) with its (their) numerical qualifier, if there is (are) any, can be placed after the head noun. This will give the impression that the post-head-noun elements are added as afterthoughts.

The following three sentences mean the same thing:

a) wo kan le A + b + B + shu

b) wo kan le A + shu + b + B

c) wo kan le A + b + shu + B

'I saw the 6000 books written in Chinese that are in the library.'

Unbroken chains are rather rare, however, especially when they are long. When such a chain is broken into two parts, each of the two in contrast to the other, there may be a chain of wholes and parts within each part. Hence in a noun phrase there may be two chains of wholes and parts, each of which is independently subject to the restrictions and variations stated above.

a) A + B + b + N wo du le d + C + D

I read

b) b + A + B + N wo du le C + d + D

c) A + N + b + B wo du le C + d + D

etc.

Here are some additional remarks on such broken chains.

(6) For one noun phrase there should be no more than one head noun appearing in the actual sentence. The chain for UNV usually has a head noun, and its repetition in the chain for

SCP is not allowed.

In contrast to English, which may have 'the three books of the five books,' Chinese does not allow *wuben shu de sanben shu. This does not mean that we should not postulate two head nouns in the same noun phrase. The fact that the head can occur with any MOD or Det as shown in (5) above suggests that we could postulate a noun for each MOD and Det in the deep structure. Notice that in (2) above we postulate a head noun to account for the set of objects referred to by different MOD and Det in the same noun phrase.

(7) If no head noun follows a SCP isolated from the rest of NP, no numeral phrase can be placed at the end of the SCP unless it is definite. If MOD + Ddef + NUP occurs, the numeral phrase should be concomitant or in coordination with the modifier.

A + B + b + N wo du le C + D + Ddef + d

*A + B + b + N wo du le C + Ddef + d

(8) When there are outside elements between universe and scope, the numeral phrase in each part is shiftable only inside its own part: change of position across the cut is impossible.

*A + B wo du le b + C + D

*A + B + c wo du le C + D

(9) If both UNV and SCP have a numeral phrase, each of the definite markers in UNV + N may be deleted. But such a deletion is limited to cases where the MOD and the Det are in coordination. Hence the zai nar de yiqian ben shu in the following should be understood as definite, and the two qualifiers as concomitant (or in coordination).

zài nàr de yiqian ben shu pòle wǔbǎi ben
at there 1,000 book damage 500

'Of the 1,000 books over there, 500 copies are damaged.'

In a BA-sentence, if a chain of wholes and parts is the object, it may be interposed by outside elements at two places; in one place by the subject and BA, and in the other by the verb.

A + N wǒ bǎ c + B + C dú le d + D

'I read the three most important and easy ones out of the Chinese grammar books which are in the library.'

But here we have reasons to put c + B + C with A + N under UNV, instead of putting it with d + D under SCP:

(1) c + B + C should always be definite. (The noun after ba is always definite.)

(2) When the portion of the NP after b \check{a} has a numeral, it is very unlikely for the portion preceding it to have another numeral. But it is possible for one numeral to occur after the main verb and another before the main verb.

(3) There will be no difficulty in interpreting the numeral in $c + B + C$ when it is put together with A. But difficulty arises when it is put together with $d + D$. For $d + D$ is that part of the NP (i.e. scope) that is affected by the action denoted by the verb. Hence we can regard $A + N + c + B + C$ as a chain of wholes and parts dominated by UNV. A merely serves to identify the UNV, $c + B + C$.

The alternative that a noun phrase can be divided into three elements ($UNV_1 + UNV_2 + SCP$, $UNV + SCP_1 + SCP_2$, etc.) should be rejected for the following reasons:

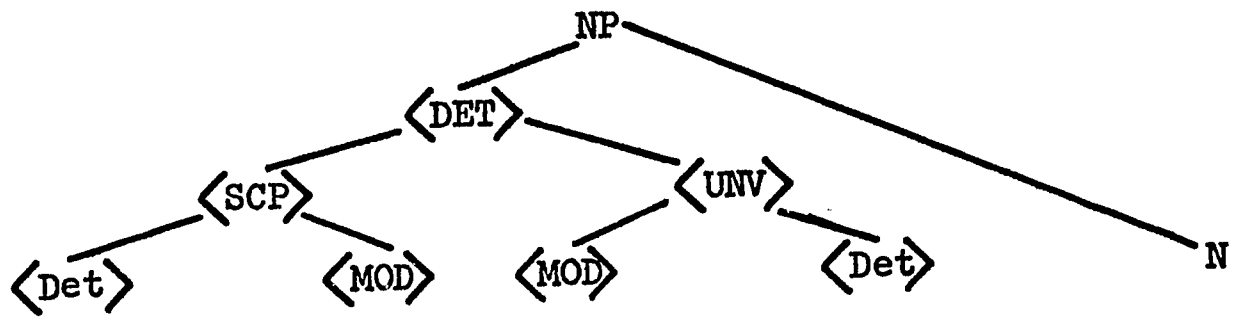
(1) Since the analysis of binary division can account for the above special case, any further complication would lose economy without gaining anything.

(2) The main focus of the interest in the above BA-sentence is what (or how many) books the speaker has read, in contrast with the whole from which he selected for reading. How this whole is identified (i.e. defined by another modifier) is of secondary interest. Since the two cuts are not of the

same nature, there is no reason to use three-way branching for the expansion of the noun phrase.

3.5.5. Summary: The positions of the elements in a noun phrase
in the surface structure

Since the DET, UNV, SCP, MOD, Det, etc. (other details ignored) are all optional in the noun phrase, there are 16 combinations of Det, MOD, MOD, Det, including nonoccurrence of any of these determinatives. The following shows all such combinations. It should be mentioned that the MOD's may have mod, mod ... in coordination (i.e. conjoined restriction) or subordination (i.e. successive restriction).



1	Det		MOD	MOD	Det	N
2	Det		MOD	MOD		N
3	Det		MOD		Det	N
4	Det					N
5			MOD	MOD	Det	N
6	Det		MOD			N
7	Det			MOD		N
8	Det				Det	N
9			MOD	MOD		N
10			MOD		Det	N
11				MOD	Det	N
12	Det					N
13			MOD			N
14				MOD		N
15					Det	N
16						N

We shall now make a summary of the general rules which account for the relative positions of Det, MOD, MOD, and Det with regard to N. There are several cases (e.g. Patterns 1, 2, 3, etc. in the above) where the separation of SCP from the rest is obligatory. The following T-rules (1-3) will turn them into UNV + N + de + SCP. How the UNV + N and the SCP may be further separated by outside elements (including pause through deletion of de) will be discussed in 5.3, Universe and Topicization.

It goes without saying that our assignment of base structures and writing of permutation rules should aim at an explanation of our observations that D + NUP + MOD + N, MOD + NUP are ambiguous, and MOD + Ddef + NUP + N is not, that the expressions for universe are always definite, whereas those for scope may be definite (including dì èr ge 'the second one') or indefinite, and so forth. Besides, we should aim to avoid allowing ambiguity which is structurally or semantically unnecessary (i.e. not observable by the native user).

(1) When Det + N occurs as the whole string for an NP in the surface structure, no ambiguity is observable. Hence it seems

desirable that $\left\{ \begin{array}{l} Ddef \\ Dm \end{array} \right\} + NUP$ be assigned uniquely to UNV, $\left\{ \begin{array}{l} Dinf \\ Dord \end{array} \right\} +$

NUP to SCP, and that a Det separated from N by an outside element

(i.e. $N + X + \text{Det}$) be assigned to SCP uniquely. Therefore, we have:

SCP [Det], N

$$\text{a. If Det} = \left\{ \begin{array}{l} \text{Ddef} \\ \text{Dm} \end{array} \right\} + \text{NUP}$$

$$\text{obl} \Rightarrow 2 + \text{de}, 1$$

$$\text{b. If Det} = \left\{ \begin{array}{l} \text{Dinf} \\ \text{Dord} \end{array} \right\} + \text{NUP}$$

$$\text{opt} \Rightarrow 2 + \text{de}, 1$$

(See Pattern 12 of the above for applicable situations.)

(2) When $\text{MOD} + N$ of $N + X + \text{MOD}$ occurs as the whole string of NP, no ambiguity is observable. Hence

SCP [$\langle \text{Det} \rangle + \text{MOD}$], UNV + N

$$\text{obl} \Rightarrow 2 + \text{de}, 1$$

(See Patterns 1, 2, 3, 5, 6, 9, 10, 13.)

(3) Since $\text{Det} + \langle \text{MOD} \rangle + \text{Det} + N$ does not occur,

$\text{Det} + \langle \text{MOD} \rangle$, Det + N

$$\text{obl} \Rightarrow 2 + \text{de}, 1$$

(See Patterns 4, 8.)

$$(4) \text{ Since } \left\{ \begin{array}{l} \underline{\text{mei}} + \underline{\text{yi}} + \text{M} \\ \underline{\text{renhe}} + \text{yi} + \text{M} \end{array} \right\} + \text{MOD}$$

as well as MOD + $\left\{ \begin{array}{l} \underline{m\check{e}i} + \underline{yi} + M \\ \underline{r\grave{e}nh\acute{e}} + \underline{yi} + M \end{array} \right\}$

occur,

SCP [$\left\{ \begin{array}{l} \underline{m\check{e}i} \\ \underline{r\grave{e}nh\acute{e}} \end{array} \right\} + yi + M$], MOD, N

opt \Rightarrow 2, 1, 3

(See Pattern 7.)

(5) Since the following bracketed expressions are usually understood as definite,

[báwēi kèrén]lái le sanwēi

eight guest come three

[túshūguǎn wǔwànben shu]bèi tou le yídàbàn

library 50,000 book steal

we have

UNV [X, Ddef, NUP + Y] + W + SCP

X or Y = MOD; Ddef + NUP and MOD are in coordination.

opt \Rightarrow 1, 3

3.6. Universe-scope in constructions other than subject and object

So far we have considered the UNV-SCP constructions which appear in the subject or in the single object. We shall discuss briefly what other kinds of noun phrases may have such two-termed

constructions. What is discussed here will not be incorporated in the rules and will include cases where the UNV and SCP have different head nouns.

Besides subjects and single objects, almost any other type of NP may have UNV-SCP. But those that may be separated by other elements are limited to Time and Place, in addition to direct and indirect objects.

3.6.1. Indirect object

90a nà yi ban xuésheng wǒ quán dou gěi le A
that one class student I all give

'I gave A's to all students of that class.'

90b nà yi ban xuésheng wǒ zhǐ gěi le sān gè rén A
only three person

'I gave A's to only three students of that class.'

3.6.2. Direct object

91a nà yì dá qianbǐ wǒ yǐjīng gěi ta sān gè le
that one dozen pencil I already give he three

'I have given him three (pencils) out of that dozen (of) pencils.'

91b nà yi dá qianbi wǒ yǐjīng quán dou gěi ta le
all

'I have given him all of the dozen (of) pencils.'

3.6.3. Place

92a xibù de dà chéngshì wǒ měige dìfang dou qùguo

West big city I every place all go

'I have been to every big city in the West.'

92b xibù de dà chéngshì wǒ zhǐ qùguo liǎngge dìfang

only two

'I have only been to two of the big cities in the West.'

Here the SCP needs to have a noun. But since repetition of the same noun in a sentence of UNV and SCP is taboo, a general noun dìfang 'place' is preferred. This cannot be generated from the P-rules suggested above. Hence if the present rules are not revised, the dìfang 'place' must be introduced through transformation on the strength of the node Place and the Det_p.

3.6.4. Distance

93a shí gonglǐ lù wǒmen yǐjīng pǎo le jiǔ gonglǐ le

ten km road we already run nine km

'We have run nine km (out) of the ten km.'

93b shí gonglǐ lù wǒmen hái pǎo bu dào yì gonglǐ.

still not one

'We ran only one km (out) of the ten km.'

3.6.5. Duration

94a yì nián sanbailiùshiwǔ tiān wǒ cái zài waimian zhù le
 one year 365 day I only at outside live

san tiān
 three day

'Out of 365 days in one year, I lived only three days
 away from home.'

94b yige xingqi de xiujia yijing wan le wu tian le
 one week vacation already five day

'Out of a vacation of one week, five days have been spent
 fooling around.'

3.6.6. Frequency

95a na jici hui wo dou mei canjia
 that several meeting I all no attend

'I did not attend any of the several meetings.'

95b na jici hui wo zhi canjia zuihou yici
 only last one

'Among those meetings, I attended only the last one.'

3.6.7. Duration of time

Duration of time can be indicated in two ways: by specifying the limit (i.e. the beginning and ending points of time), and by describing the length of time duration (in terms of time units, for example). Either way can be used for universe or scope.

a) zuotian wo kan shu kan le sanxiaoshi

length

length

'I read for three hours yesterday.'

b) zuotian wo cong zaoshang qidian kanshu kan dao badian

length

beginning point

ending point

'Yesterday I read from 7 to 8 a.m.'

c) cong badian dao wudian wo zhi xiuxi bange xiaoshi

'From 8 to 5 I rested only for half an hour.'

d) " " " " " "

shier dian dao

shier dian yike

de na duan shijian

'From 8 to 5 I rested only for the period of time from

12 to 12:15.'

The portion of time for scope may be definite or indefinite; the portion of time for universe is usually definite. Occasionally universe or scope may take both ways of indicating a portion of time: by limit and by length, which in general describe the same portion of time. Compare (96a) and (c) in the following, which exemplify limit and length in apposition and (96c) and (d), which exemplify universe and scope.

96a yijian sanbailiushiwu tian

365 days, or a year

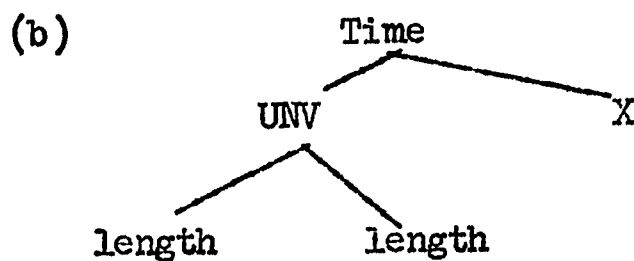
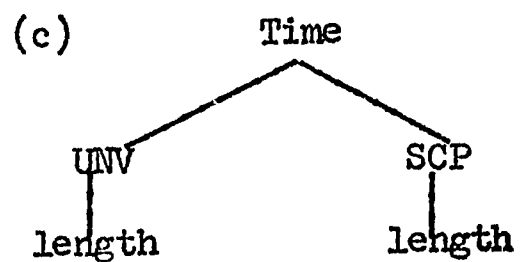
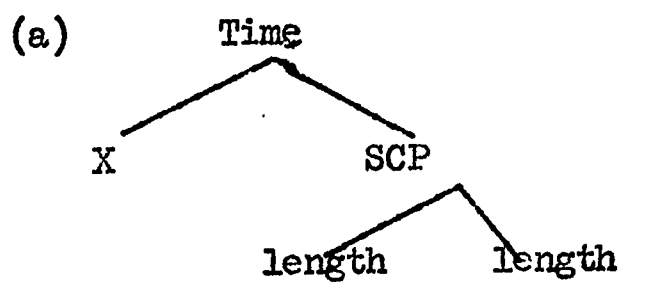
96b zuotian wo cong jiu dian gongzuo dao shiyi dian gong zuo
le liang xiao shi

'Yesterday from 9 o'clock to 11 (I) worked two hours.'

96c 365 tian li de san tian
 three days in 365 days

96d cong jiu dian dao shiyi dian zhi zuo le shifenzhong
 'Between 9 and 11 (I) only worked 10 minutes.'

When two time expressions which denote the same length of time appear in a sentence, there are two kinds of possible relations between them: one concomitance (a, b) and the other universe and totality scope (c).



In actual sentences UNV and SCP are generally separated by other elements, and therefore can be distinguished from apposition easily. Compare (e) and (f).

96e qunian 365 ri ni dou zai gan shenme?

last year day you all do what

'During the 365 days last year what were you doing all around?'

96f qunian wo zhengzheng gongzuo le 365 ri

exactly work

'Last year I worked for exactly 365 days.'

Time expressions like shèngdàn 'X'mas,' 1966 nían '1966,' sanyue shiwu ri 'March 15,' which are proper nouns in nature, or jintian 'today,' qunian 'last year,' etc., which are substitutes for these, often serve as the universe and durative expressions as the scope. It goes without saying that to show a whole-part relationship, the time unit in the universe should be larger than that in the scope, since the former is usually singular.

Moreover, yìzhí 'always,' tongcháng 'usually,' shíshíkèkè 'always' / etc., may be regarded as totality scope and yǒu shíhou 'sometimes,' yíhūir 'a while,' hěnnshǎo 'seldom' may be included in partitive scope. The use of ADscop dou 'all,' zhǐ 'only' also applies here.

97a wǒ jintian yìzhí dou hěn máng

I today always all very busy

'I am very busy today all through.'

97b wǒ jīntiān zhǐ xiǎng gōngzhuò { yìhǒur
sānge xiǎoshí }

only think work

'Today I wanted to work only for { a while'
 three hours' }

To refer to a point or a length of time, Chinese uses a device very similar to that of many other languages. Time units are year, month, day, hour, minute, and second.³¹ A point in time we express by a succession of $NU_0 + Mt$, where NU_0 is an ordinal number, and Mt is a time unit, e.g.

1932 nian 12 yue 1 ri shangwu 5 dian 53 fen 11 miao
 1932 December 1st a.m. 5 o'clock 53 min. 11 sec.

For duration of time we use $NU + Mt$, where NU is a cardinal number, e.g. 30 nian '30 years,' 30 fen '30 minutes.'

Logically, this sequence can be regarded as a chain of whole-part relationships with each term receiving singular and definite reference. (Cf. 3.5.4. Chain of Wholes and Parts.)

When the chain is cut into a binary opposition of universe and scope it means that the two portions are related to each other not as a specifier of another specifier, but as a given whole and its part, whose size in proportion to the whole is of great

concern. Hence with the understood and unspecified part deleted, the above sequence may appear as the time expression in (a's); but a different device is called for in deriving (b's).

98a qunián yíyuè yírì wǒmen xiuxi
last year Jan. the 1st we rest

'Last January the 1st we had a vacation.'

98b qunián wǒmen zhǐ yíyuè yírì xiuxi
only

'Last year we had a vacation only on Jan. 1.'

98c qunián wǒmen zhǐ yíyuè yírì hàn liùyuè yírì xiuxi
and June

'Last year we had a vacation only on Jan. 1 and June 1.'

98d qunián wǒmen zhǐyǒu liǎngtiān xiuxi
only two day

'Last year we had a vacation only on two days.'

98e qunián wǒmen zhǐ xiuxi (yíyuè yírì hàn liùyuè yírì) liǎngtiān
only and June

'Last year we had a vacation only on two days (Jan. 1 and June 1).'

99a shàng xīngqī de xīngqī sān wǒmen shàng le kè
last week Wednesday we class

'Our class met last Wednesday.'

99b shàngxīngqī wǒmen zhǐ yǒu xīngqīsān shàng kè
only

'Last week our class met on Wednesday only.'

99c shàngxīngqī wǒmen zhǐ xīngqī sān hàn xīngqīsì shàng le kè
and Thursday

'Last week our class met on Wednesday and Thursday only.'

99d shàngxīngqī wǒmen zhǐyǒu liǎngtiān shàng kè
only two day

'Last week our class met only two days.'

99e shàngxīngqī wǒmen shàngkè zhǐ shàng le (xīngqīsān hàn
xīngqīsì) liǎngtiān

'Last week our class met only two days (Wednesday and Thursday).'

In (b's) we have a special case of the UNV-SCP construction; both the UNV and SCP have definite and singular reference. Through conjoining of SCP's we may have (c's); and (d's), if we prefer indefiniteness to definiteness, numerical generalization to listing of specific instances.

It is worth mentioning that (e's) (without the time proper nouns in parentheses) are a more common form for (d's), and that proper time nouns can be placed after the verb only

if a DUR is present in apposition.³²

3.6.9. Restriction on occurrence of phrases bearing both UNV and SCP

It is fortunate that there is a rather strict restriction on the occurrence of phrases that have discontinuous UNV and SCP: no sentence can have more than one such phrase.

Occasionally, a sentence may have more than one phrase that has both UNV and SCP. But not more than one can be split. And very frequently the UNV of one (and only one) of these noun phrases is shifted to the beginning of the sentence and constitutes the topic of the sentence.

In spite of this restriction, dou may be ambiguous if there is more than one definite noun which is a candidate for UNV preceding dou.

100a nàxiè shu wǒmen dou dú le

those book we all read

(i) 'We have read all of those books.'

(ii) 'All of us read those books.'

(iii) 'All of us read all those books.'

100b wǒmen xiàwū dou méi kòng

afternoon all no free time

- (i) 'We do not have any spare time all the afternoon.'
- (ii) 'All of us are not free in the afternoon.'
- (iii) 'All of us are not free all the afternoon.'

3.6.10. Restrictions on members of SCP and UNV in different types of noun phrases

It may be universally true that the scope words used for noun phrases functioning as subject and object may not be identical with those used in time or place expressions. Thus yībùfen 'a part,' zhěngge 'whole' will not be proper for frequency. And instead měige dìfang 'every place,' dàochù 'everywhere' can also be used for Place. chángcháng 'always,' yìzhí 'always,' yǒu shíhòu 'sometimes' can be regarded as a type of scope word in the time expression, where the universe may be unspecified.

101a (quán xiào de rén) cóng xiǎozhǎng dào xiàogong
 all school people from president to janitor
méiyǒu yíge rén bù zhīdao zhèjiàn shì de
 no one person no know this matter

'(Of all the people in school) From the President to the janitor there is no one that does not know this matter.'

101b cóng ta líkai dao xiànzài (zhèduan shíjián)

from he departure to now this period time

wǒ méiyǒu yìtiān bu xiǎng ta de

I no one day no think he

'During the period from his departure to the present
there has been no single day in which I did not miss
him.'

A similarity between subject-object noun phrases and other types of noun phrases can be found in setting up the limits of the universe by the cóng ... dào 'from ... to' construction. Both may have another phrase in apposition for universe, which can be deleted in both cases. On the other hand, the scope words in noun phrases for time or place often require a head noun (usually a general noun, e.g. shùnjian 'moment,' shíjian 'time'), whereas those in subject-object noun phrases seldom take any (e.g. rén 'people,' shìqing 'matter,' dongxi 'thing'), since they may be identical with the head noun of the SCP.

3.7. Alternatives to the present solution

We shall now consider some alternatives to the solution of UNV and SCP as two mutually independent constituents of the determinative.

3.7.1. dou as Verbal Adverb and as Conjunction

The restrictive modifiers and deictic markers of a noun can probably be understood as a scheme for determining (defining) a set of objects denoted by the noun. In set theory this scheme is merely a substitute for another more primitive way of defining a set, namely the listing of all its members. (Subscription can be used if the members have no name.) The quantitative determinative, then, can be understood as an indication of the size of the set--an indication of how long the list of the members of the set is.

The listing method in language will be what is usually called the conjoining construction, if the members of the set are listable and are more than one. And from the above comparison it seems reasonable to assume that the determination and the conjoining of nouns are closely related.

Our problem related to this analogy is the interpretation of dou, which is regarded by some grammarians as an adverb, by others as a conjunction, and by us as an emphatic marker of totality.

The fact that dou always occurs with the predicate and that a sentence may have all elements other than dou + V deleted, but never have N + dou alone, has led to the solution

that dou is an adjunctive to the verb rather than the noun.

In spite of the use of the term fanwei fuci 'scope adverb' for dou, zhi, etc., Chinese grammarians have hesitated to associate it with the noun. Most grammarians adopt the view that dou expresses the scope of action for the verb, rather than speak of formally characterizing the relationship between the noun and dou.

Of interest is the view that dou is a conjunction for cases where conjoined elements are nouns.

In his treatment of 'Conjoining and Deletion in Mandarin Syntax' William Wang (1964) treats dou as a conjunction.

This view may account for sentences like the following:

102 Zhang San han Li Si dou qu guo le
 and all go

'Zhang San and Li Si have both been there.'

where han 'and,' which is widely accepted as a conjunction, is optional and dou obligatory.

And with some adjustment this view may also account for sentences of the following types. (In order to do so, however, one has to explain the relation between the quantitative determinative and the conjoining of nouns in a certain way.)

103a nà shiben shu wo dou kan guo le

that ten book I all read

'I have read those ten books already.'

103b nà shiben shu wo quan dou mei kan guo

all not read

'I did not read any of those ten books.'

But we must find some other source to account for a noun which is singular or uncountable, and yet has dou.

104a nà yiben shu wo quanbu dou kan guo le

that one book whole all read

'I have read the entire book already.'

104b wo zhengge xiaowu dou meiyou kong

whole afternoon all no free

'I am not free all the afternoon.'

104c wo yi ba pingzi li de shui dou dao chu lai le

already bottle in water all pour out

'I have poured out all the water in the bottle.'

For it is obvious that dou cannot stand as a conjunction in these sentences.

Since our UNV-SCP approach does not require that the UNV + N be a plural or countable nominal, it can account for the cases like the above, and the analysis of dou as the scope

adverb still works well.

We shall now come back to the question of how the determinative is related to the conjoining of nouns by examining how the view that dou is a marker of emphasis on totality can account for the dou which is related to the conjoining of nouns.

When nouns are listed to form a set, a restrictive determinative of the set³³ is hardly necessary, since there is no need to specify the membership by any statement as to which are the restrictive modifiers for UNV or SCP. When such a listed set is accompanied by a numeral phrase, the latter is not a determinative defining the members of the set, but an appositive, a redundant remark about the set. Therefore, it is possible to put liangben 'two M,' sange ren 'three persons' or liangyang dongxi 'two kinds of things' after the conjoined nouns in (102).³⁴

An incomplete listing needs a general noun, to be sure, and the partial list should be regarded as a modifier of this noun:

105 Wang San deng shiwu ge ren
fifteen person

'the fifteen persons including (or headed by) Wang San'

Except in some limited cases, totality is implied by a complete listing, since otherwise such a listing would not be necessary. Hence dou is obligatory, whether or not the conjunction

han 'and' appears between nouns. (See 102.)

If totality is not implied, then dou is never used, despite a complete listing.

106 ni wo ta sange ren dangzhong yao taotai yige
 person among weed one

'Among you, me and him, three persons, one will be weeded out.'

107 bushi ni jiushi wo yao bei taotai
 not be

'Either you or I will be weeded out.'

On the other hand, when SCP + Pred or SCP + V are conjoined, dou is never used, even when totality is denoted by such conjoining.

108a tade buxia youde si le youde pao le
 his follower some die some flee

'As for his men, some died, and some fled.'

108b tade buxia bushi si le bianshi pao le
 not be

'His men either died or fled.'

108c tade buxia side si le, paode pao le
 die flee

'His men either died or fled.'

109 na liu ge ren si le wu ge pao le yi ge
 six person die five flee one

'Of the six persons, five died and one fled.'

110a naxie yifu youde wo yao youde ta yao
 those garment some I want he

'As for the garments, I want some and he wants some.'

110b naxie yifu bushi wo yao bianshi ta yao
 not be

'As for the garments, either I or he will take them.'

'(I will take some and he will take the rest.)'

111 na liu jian yifu wo yao wujian ta yao yijian
 that six garment I want five he one

'Of the six garments, I want five and he wants one.'

Our point here is that when UNV + N are conjoined, dou is required; when SCP + Pred or SCP + V are conjoined, dou is not needed.

It should be recalled that we are regarding dou as a scope adverb which is a part of the determinative (our decision to introduce some ADscp (i.e. zhi 'only') in the Base and some ADscp (i.e. dou) through transformation does not affect this statement). As for the dou required by the conjoining of nouns, we still can consider it as an ADscp which is a part of the determinative.³⁵

3.7.2. UNV and SCP as determinative or nominal.

According to what we have presented for the noun phrase, the following sentence should cause little difficulty, since although the M in SCP and that in UNV have to be matched, they need not be identical. In (b) the noun goes with SCP rather than UNV. For this we can postulate that when M for UNV differs from that for SCP, the N may go with either.

112a nà yi ban xuesheng zhi lai le sange
 that one class student only come three
 'Only three of that class of students came.'

112b na yi ban zhi lai le sange xuesheng
 'Only three of that class of students came.'

However, our present P-rules for the noun phrase will have to be revised in order to account for the following:

113a nàxie xuesheng zhiyou Wang San lai
 those student only come
 'Among those students only Wang San came.'

113b wenju wo zhi mai le qianbi
 stationery I only buy pencil
 'As for stationery, I bought only pencils.'

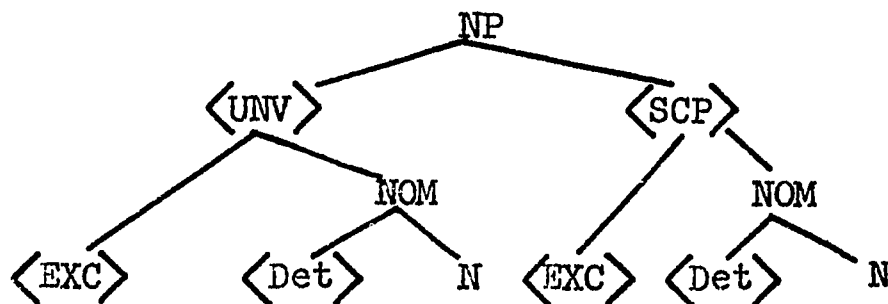
113c zhuo shang de dongxi wo zhi nà le yih qianbi
 desk on thing I take one

'As for the things on the desk, I took only a pencil.'

113d naben shu wo yige zi dou mei kan
 that M book I one character Neg read

'As for that book, I did not read even one single word.'

So far, we have regarded the notions of UNV and SCP as those of the determinative. We shall now consider the possibility of taking the two as nominals by themselves, dominated by a higher order node, which we may still call NP, or subject, object, etc., for their mutual relationship which has been described. Hence we may have a nominal with the following structure.



The order of UNV and SCP as presented above seems to make later adjustments simpler than it was otherwise. The transposition of SCP before UNV does occur occasionally, as sanzhi 'three zhi' in the following.

114a zhuo shang you sanzhi ta zuotian diu de qianbi
 desk on have three he yesterday lose pencil

'On the desk there are three of the pencils which he lost yesterday.'

But a clearer way of expressing the same idea is UNV preceding the SCP.

11'6b zhuoshang you ta zuotian diu de nàxie qianbi de sanzhi
 desk on have he those

This alternative may have a great advantage in generality. For it will put under the frame UNV-SCP many pairs of nominals that have similar semantic relationship. The non-occurrence of the same noun in the same noun phrase can be explained by the general principle of deletion by identity. Hence the impossible occurrence of the parenthesized words in (115a) and (b) can be easily explained.

115a jiaju wo bu yao mai jiu de (jiaju)
 furniture I not want buy old

'As for furniture I don't want to buy old (or used) pieces.'

115b nà yi da qianbi wo diu le liu zhi (qianbi)
 that one dozen pencil I lose six

'I lost six (pencils) of that dozen of pencils.'

It would be logically inconsistent to recognize the whole-part relationship between jiaju 'furniture' and jiude 'old, used' while not admitting such a relationship between nàxie xuesheng 'those students' and Wang San (113a), wenju 'stationery'

and qianbi 'pencil' (b), dongxi 'things' and qianbi 'pencils' (113c).

If this alternative is to be adopted, and we think it proper, we have to answer an important question: How do we formally characterize the universe-scope relationship of any pair of nouns so as to reject improper pairs? Some semantic analysis, including that of the general-specific feature of terms, is a prerequisite.

Another important question related to this alternative is whether the universe-scope device can be extended to cover what Chao calls the owner-owned relationship (1965, p. 125).

116a ta xin teng

he heart ache

'His heart aches.'

116b ta pqi huai

temper bad

'He has a bad temper.'

116c ta shou na zhe yiben shu

hand take one book

'He has a book in his hand.'

116d ta you yizhi yanjing xia le

have one eye blind

'One of his eyes is blind.'

116e ta you yike yachi diao le
 one tooth lose

'He lost one of his teeth.'

116f ta you yizhi shou duan le
 one hand break

'One of his arms is broken.'

In contrast with (a, b, c), which we may call cases of person and body part,³⁶ we seem to have to regard (d, e, f) as cases of class-member by deriving them from (d', e', f'), respectively.

116d' tade liangzhi yanjing dangzhong you yizhi xia le
 his two eye among have one blind

'One of his two eyes is blind.'

116e' tade naxie yachi dangzhong you yike diao le
 those tooth one lose

'One of his teeth is lost.'

116f' tade liangzhi shou dangzhong you yizhi duan le
 two hand one break

'One of his two arms is broken.'

As in the cases of class and member, the second nouns above can be put right after the verb. (All the linking

words will be deleted.)

It should be noted here that the verbs or adjectives with which the separated constituent may occur are much more limited for person and body-part nouns than in the case of class and member constituents.

In BA-sentences (BA = pretransitive) (117) and BEI-sentences (BEI = passive) (118) the owner-owned relationship (a's) seems to behave differently from the class-member relationship (b's). Here person and body part behave similarly to the class member relationship (c's), rather than the owner-owned relationship. On this basis it seems proper that we recognize person and body part as another type of whole-part relationship and include pairs of nouns that have the person and body-part relationship with those for the head nouns of UNV and SCP. Otherwise we would have to regard the relationship in (c's) as the class-member relationship with some deletion.

117a *tamen ba ta da po le huapin
 they he hit break vase

117b tamen ba wuge huapin da po le sange
 five three

'They broke three of the five vases.'

117c tamen ba ta da po le tou
 he hit break head

'They hit him on the head and broke it.'

118a *ta bei da po le huapin
 hit break vase

118b wuge huapin . bei da po le sange
 five three

'Three of the five vases were broken.'

118c ta bei da po le tou
 he hit break head

'He got his head hit and broken.'

Judging from the linking formatives that can appear between the two terms in a whole-part construction, the UNV-SCP construction is a kind of modifier-modified construction (i.e. DE-Construction) which the owner-owned relationship and many others also take. Or at least it is a type of structure which can be transformed into such a construction. (The two views will be discussed in the next section.)

119a ta de xin teng
 he heart ache

'His heart aches.' (He has a heartache.)

119b nà wujian yifu (li) de } sijian bei tou le
 that five garment { you } four steal
 { in }
 { have }

'Four of five garments were stolen.'

If a general-specific relation (c, d) is not included in universe-scope, deletion (of the part in parentheses, for example) should be recognized.

119c dongwu li { de } (yi zhong jiaozuo) ren (de dongwu)
 animal in { } (one kind call) man (animal)
 { only }

hui jianghua

can talk

'Among animals { } (an animal called) man can talk.'
 { only }

119d nàxie shuiguo li { de } (yi zhong jiaozuo) mugua
 those fruit in { } papaya
 { zhiyou }

(de shuiguo) lan le

fruit rot

'Among those fruits { } (that kind of fruit called)
 { only }

papaya got rotten.'

The alternative of regarding UNV and SCP as nominal rather than determinative is supported by the following observations, in addition to the above discussion.

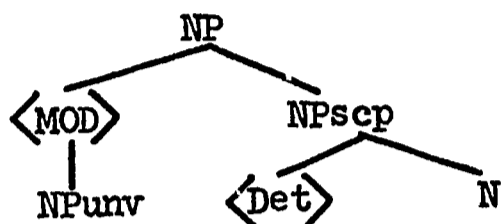
(1) The head noun can go either with the UNV or the SCP in the actual sentence, and deletion of one of the two nouns seems to require less complicated rules than the shifting of a single noun.

(2) From their behavior in sentences, it seems reasonable to assume that when UNV and SCP are spoken, two sets of objects are referred to. It is more natural to conceive of each set of objects as denoted by a head noun, whether it is with or without a modifier and/or determinative, than to conceive of some set of objects denoted only by a modifier or determiner, without any head noun.

3.7.3. UNV as a MOD of SCP

Although we have left open the question raised in 3.7.2, it seems useful to assume that the interpretation suggested there is correct and proceed to see some consequences of this supposition.

If we adopt the solution that both UNV and SCP are nominal phrases, a possible rearrangement of the noun phrase will be:



in which the nominal for universal (NPunv) is regarded as a modifier of the scope nominal (NPscp). This will mean that the notion of UNV-SCP will not be recognized as a grammatical category, but as something between two nominals that are connected by some verb in an embedded sentence functioning as a MOD.

This approach would be very welcome if it were possible to find some constant source for owner-owned, person-body-part, or class-member relationships in which the whole and the part have different nouns.

120a ta you zui

he have mouth

'He has a mouth.'

120b qianbi { shuyu } wenju (de yi zhong)
 { shi }

pencil { belong to }
 { be }

'Pencils { belong to } (a kind of) stationery.'
 { are }

But the difficulties involved are no less than those of the Genitive. For example,

120c *ta you xingzi
 he have temper

for a source of ta xingzi ji 'He has a quick temper.'

120d *sanzhi qianbi shi wenju de yizhong
 pencil be stationery one kind

for (113b) are not possible.

In a class-member relationship where the class and member have the same terms (nouns) the difficulties are even greater, since:

121a *wuwei keren you sanwei keren
 five guest have three guest

is not possible. Sources like

121b zhe sanwei keren zai na wuwei keren li
 three at five in

'These three guests are among the five guests.'

are possible only when both are definite.

Finally, if this alternative is to be adopted, scope expressions for totality need to be treated differently from those for partitive.

122a naxie ren jiushi quanbu le
 those man be all

'Those people make the total.'

122b nàxie ren jiushi women suoshuo de nàxie ren de
 those man be we mention those man
quanbu le
 whole

'Those people are the total of all the people we have
 been talking about.'

But there seems to be some deletion of a modifier for
quanbu 'the whole': say, the one in (b).

3.7.4. you as the Linking Verb between NP for Universe and NP
 for SCP.

Suppose that we did not find it objectionable to treat
 totality and partitivity differently; there is an alternative
 that might work: we derive the totality as a part of the de-
 terminative, and a sentence with a universe and a partitive
 from a source which has the verb you 'have, there be' and a
 complement. The universe will be regarded as a case of
 Subject or Place, and the partitive as a case of the object of
you; the rest of the sentence will be derived from the all-
 purpose node complement (Comp).

Why the universe can also be regarded as a case of
 place expression and why you 'there is' is an appropriate verb

here can be seen from the following.³⁷

123a lanzi li you yige juzi lan le

basket in have one orange rot

'There is an orange in the basket that has got rotten.'

123b lanzi li de yige juzi lan le

basket in one orange rot

'An orange in the basket got rotten.'

124a na sange juzi li you yige lan le

those three orange in have one rot

'Of the three oranges, there is one rotten.' or

'One of the three oranges got rotten.'

124b na sange juzi li de yige lan le

'One of the three oranges got rotten.'

123c lanzi li lan le yige juzi

basket rot one orange

'In the basket is a rotten orange.'

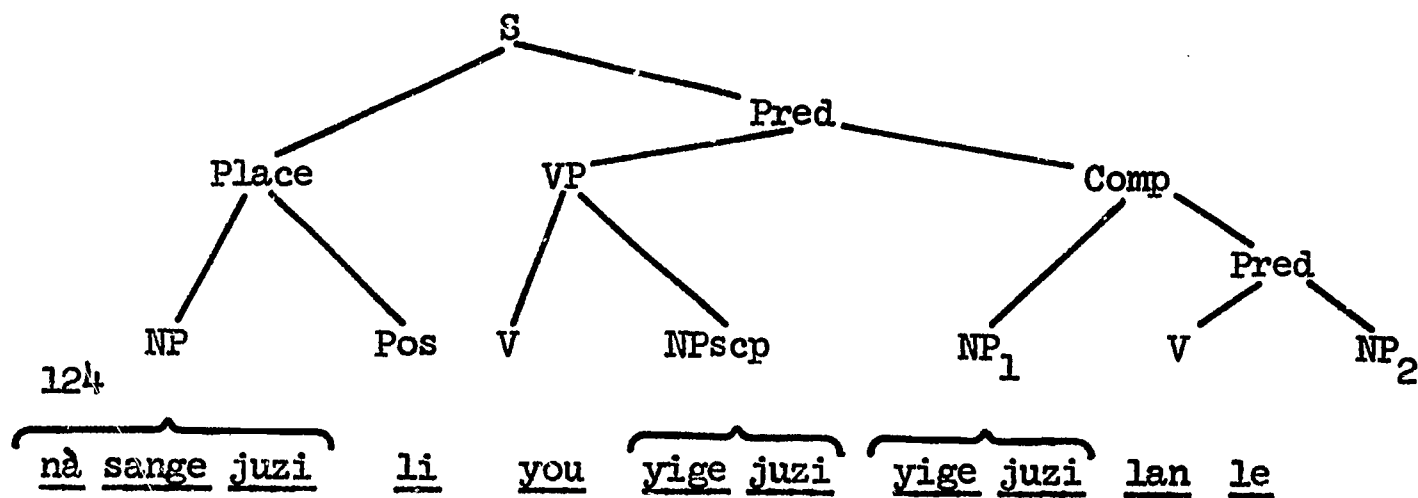
124c na sange juzi lan le yige

'One of the three oranges got rotten.'

Notice the optional use of localizer li 'in' (and dangzhong, zhongjian 'among' also) for the UNV + N in (124a, b).

It is clear that verb you 'there is' is used where an object exists (or is located) in a place, as well as when it

exists (or belongs) in a class as a member or subclass.



where the NPscp (subscription is used only for explanation here) should be identical with the subject (NP₁), the object (NP₂), or any other possible noun phrases in the complement.

The scheme, to be sure, is used only when a sentence has two phrases that correspond to universe and partitive.

But a sentence with an indefinite noun can be derived from this source in which the noun phrase for universe is unspecified. The indefinite subject in the constituent string will be deleted for its identity with the object of you 'there is.'

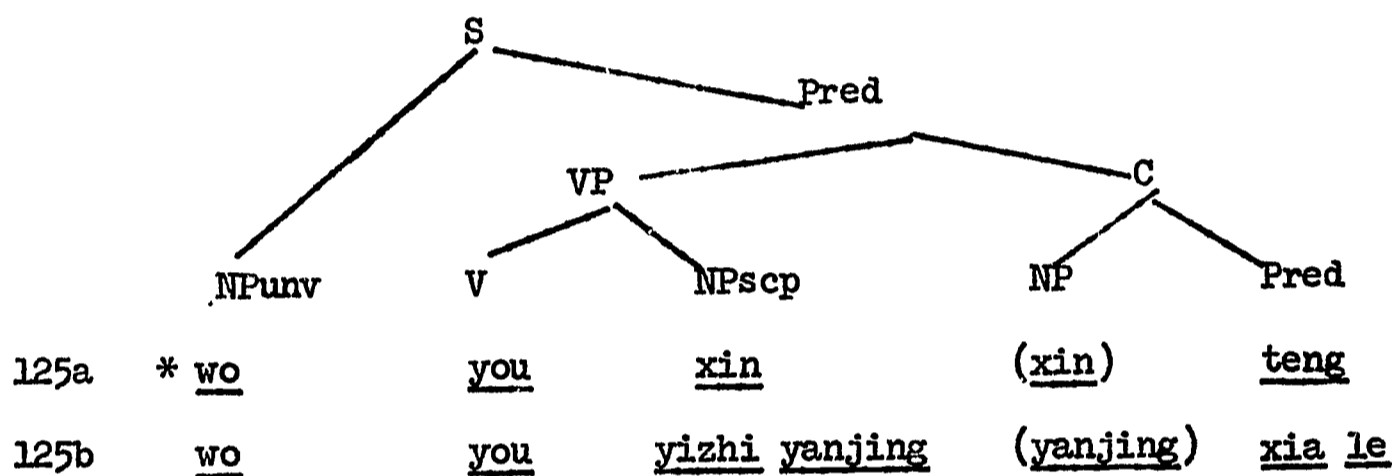
This solution will mean that the you which has been interpreted as an indefinite marker, or a linking word for universe and partitive will now be regarded as a verb.

This approach has several advantages:

- (1) It sets forth very naturally the restriction that no

one separated universe-partitive construction occur in the same sentence.

(2) It can also be used for the person-body-part construction, since in both cases you is used.³⁸

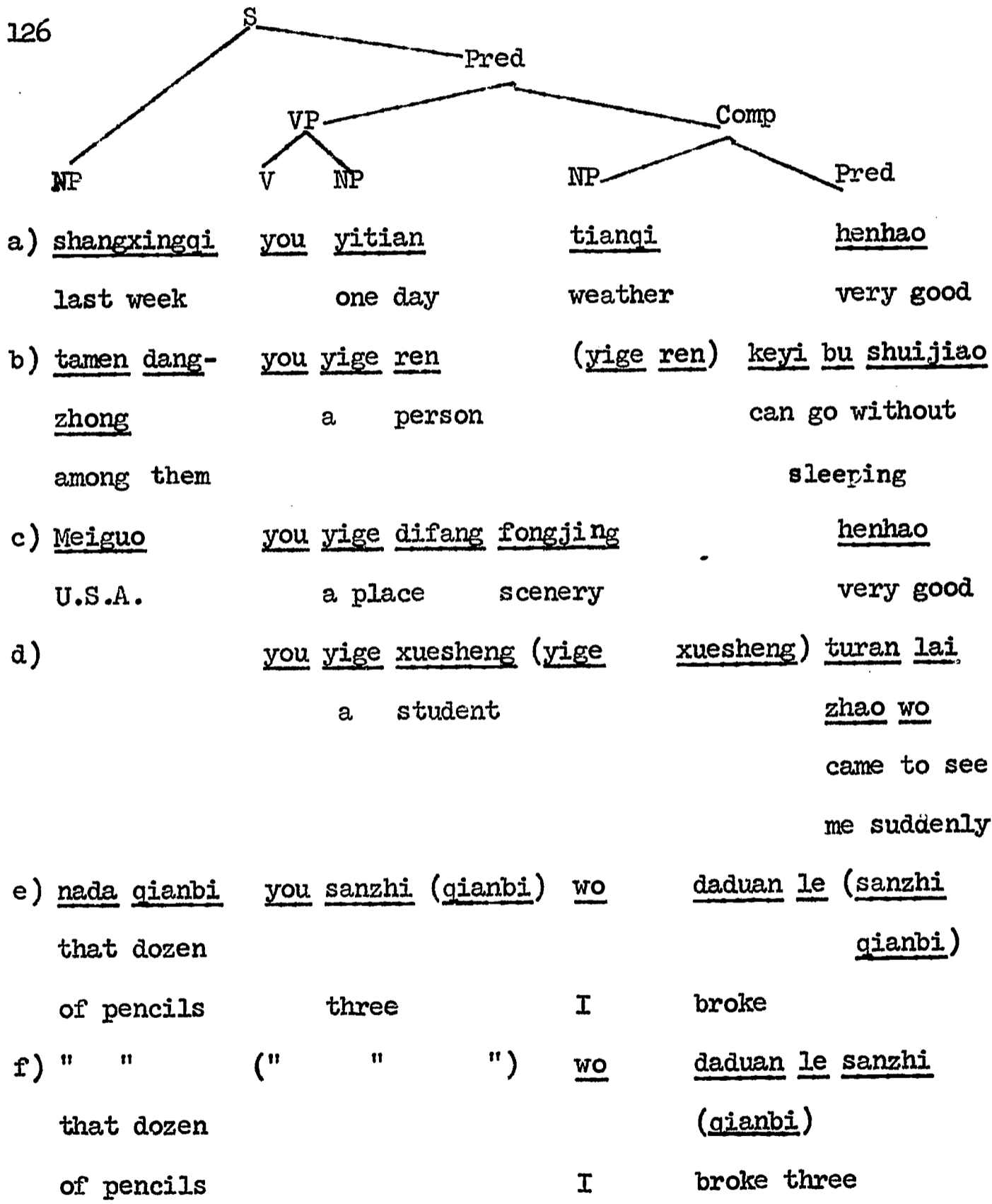


In the examples given above (a) and (b) differ chiefly in the presence or absence of a numeral phrase. After deletion of the identical NP in C, (a) is ungrammatical because of the presence of you; (b) is grammatical with or without you. Hence obligatory deletion of you in the absence of a numeral phrase in (a), following the noun phrase, and optional deletion of it in the presence of a numeral phrase will take care of the problem.³⁹

(3) This scheme may enable us to account for the meaning of the verb you in a consistent and formal way. It always means 'to have, to possess' when it has a subject in the Base; it means both 'to exist' and 'to possess' when it is preceded by both a subject and a place and/or time expression; it means

indefiniteness for the following noun when no subject or time or place precedes.

(4) Since the universe is often placed at the beginning of a sentence, this scheme settles the problems of transposition and surface structure from the very beginning, at least for some types of sentences. The sentence structure in the Base is roughly right branching, which is widely preferred by many Chinese grammarians, including Chao.⁴⁰



The items in parentheses are to be deleted in the derived

strings. Notice that there is the possibility of deleting an element in the matrix because of its identity with another in the constituent string. (Cf. (e) and (f).) This will adequately take care of cases where the whole and part are separated by a transitive verb (but not by an intransitive verb).

There are several reasons, however, for which we hesitate to adopt this alternative for the time being.

(1) The relationship between the verb you and the complement is hard to explain. Chinese has resultative complements which are closely related to the verb in their denotation of the result of the action denoted by the verb. This interpretation will not work for the type of complement which is considered here. It may be proper to interpret it as an object complement. But how this interpretation should be incorporated in the rules and how its differences from the other complements and noun modifiers should be indicated will have to be clarified before we can resort to it. Otherwise 'complement' will become a notion which is no better than an escape hatch to which we turn whenever difficulty arises.

(2) The pattern UNV + det SCP is needed anyway before or after a verb. It seems to be simpler and more natural to transpose UNV to the beginning of a sentence on account of its topic

nature than to shift it from the beginning of a sentence and juxtapose it with its SCP.

(3) To achieve greater economy in structural description for many complicated transformations (including topicizing, BA, BEI, predication, etc.) it is desirable that we recognize the notions of universe and scope and have specific nodes labeled as such,⁴¹ rather than depend upon their positions in a string with the verb you, which is likely to have been disturbed in a previous transformation.

(4) It is important to indicate the semantic relationship between the UNV and SCP, and it seems rather hard to do so without the two nodes labeled. The you between the two would not be reliable because there are several types of NP + you + NP + Comp and we need to set up several types of you in order to exclude all other types of relationships (the owner-owned relationship, for example) between the two NP's for semantic readings.

4. Excluding adverbials (EXC)

4.1. EXC in general

Excluding adverbials in Chinese seem to be a very general type. For they have a general form chule + S' + yiwai, which may occur as a sentence adverb (127a), a predicate adverb

(o), or a part of a noun phrase.

127a chule ta peiqian yiwai ni ye yao daoqian
 except he compensate you also want apologize
 'He needs to compensate and, besides, you also need to
 apologize.'

127b jintian zaoshang wo chule kan shu yiwai, hai xie
 today morning I read book still write
le liangfeng xin
 two letter
 'In addition to reading, I wrote two letters this
 morning.'

A sentence-excluding adverb has a constituent string that has neither noun phrase nor predicate matched in the matrix string; a predicate-excluding adverb has a constituent string which is different from the matrix only in the predicate; a determinative one has a constituent string that is different from the matrix only in the noun phrase and sometimes in the presence or absence of a negative marker in the predicate.

4.2. EXC as a part of NP

Determinative-excluding adverbials have the basic form chule + S + yiwai + qitade, which has the following

characteristics:

(1) The identical elements in the constituent string need not be deleted, though such a deletion is frequent.

128a chule Wang San mei si yiwai qitade na jiuge
 except not die other nine

ren dou si le

man all die

'Except Wang San, who did not die, the other nine persons
 all died.'

128b chule Wang San mei si yiwai qitade ren haiyou
 man still

Zhang San ye mei si

also not die

'Wang San did not die, and among the others Zhang San
 did not die either.'

128c chule Wang San mei si qitade ren haiyou sange
ye mei si three

'Wang San did not die, and three (out of the) others
 did not die either.'

128d chule Wang San mei si , qitade ren ye dou mei si
 also all not die

'Wang San did not die, and none of the others died either.'

129c chule Wang San si le yiwai, qitade jiuge ren zhizhong
among

(haiyou) sange ren ye si le

'Wang San died, and three among the other nine persons
also died.'

129d chule Wang San si le yiwai, qitade jiuge ren ye dou si le
all

'Wang San died, and so did all of the other nine people.'

129e chule Wang San si le yiwai, qitade jiuge ren hai si le
still

sange ren

three

'Wang San died; three among the other nine persons also
died.'

Here are examples in which the object has EXC.

130a chule A ban de xuesheng wo renshi yiwai, qitade
except class student I know other

wo dou bu renshi

I all not know

'Except the students in Class A (whom I know) I do not
know any other (students).'

130b chule A ban de xuesheng wo renshi yiwai, qitade haiyou
jige wo ye renshi still
 several I also know

'Besides the students in Class A whom I know, I also know some other students.'

130c chule A ban de xuesheng wo renshi yiwai, qitade wo hai
renshi jige
 several

'Besides the students in Class A whom I know, I also know some other students.'

130d chule A ban de xuesheng wo renshi yiwai, qitade wo
ye renshi jige
 also

'Besides the students in Class A whom I know, I also know some other students.'

(4) If the matrix string has a non-negated verb, the scope can be placed after the verb as usual (130c, d).

(5) There are several ways in which a sentence with EXC and ye 'also' is realized. For example, (129c) may have the following possibilities:

	EXC	UNV	SCP
a.	<u>chule Wang San sile yiwai qitade</u>	<u>nàjiuge ren</u>	<u>haiyou sange ye sile</u>
b.	<u>chule Wang San yiwai qitade</u>	<u>nàjiuge ren</u>	<u>haiyou sange ye sile</u>
c.	<u>chule Wang San qitade</u>	<u>nàjiuge ren</u>	<u>haiyou sange ye sile</u>
d.	<u>chule Wang San</u>	<u>nàjiuge ren</u>	<u>haiyou sange ye sile</u>
e.	<u>chule Wang San</u>	<u>nàjiuge</u>	<u>haiyou sange ye sile</u>
f.	<u>chule Wang San</u>	<u>nàjiuge ren</u>	<u>hai sile sange</u>
g.	<u>chule Wang San</u>	<u>nàjiuge</u>	<u>hai sile sange</u>
h.		<u>qitade</u>	<u>haiyou sange ye sile</u>
i.		<u>qitade</u>	<u>hai sile sange</u>
j.		<u>qitade</u>	<u>hai sile sange</u>
k.		<u>qitade</u>	<u>sile sange</u>
l.		<u>nàjiuge ren ye</u>	<u>sile sange</u>

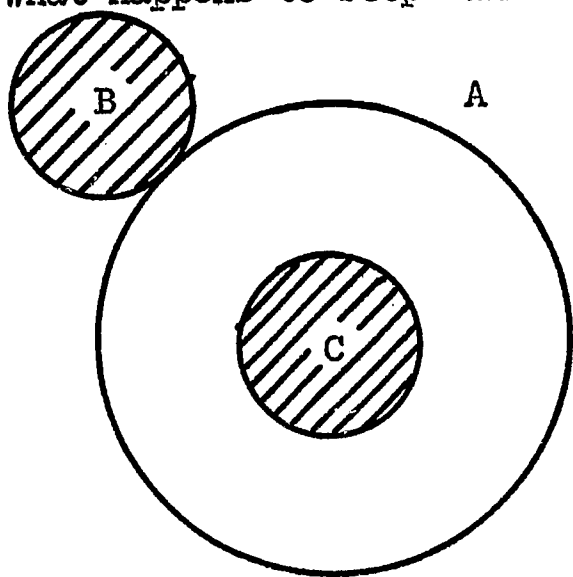
Some other possibilities are ignored here, e.g. change of qitade

into qita.

4.3. Implications of ye 'also' and qitade 'other'

(6) The linking word between the UNV and SCP is haiyou 'still,' instead of simply you, if ye 'too, also' is present.

It is important to notice that the ye 'also' in b, c, d, e, h, k, l and hai 'still' in f, g, i, j serve to denote that what happens to scope also happens to the nominal in EXC.



where

A = nàxie ren (UNV)

those people

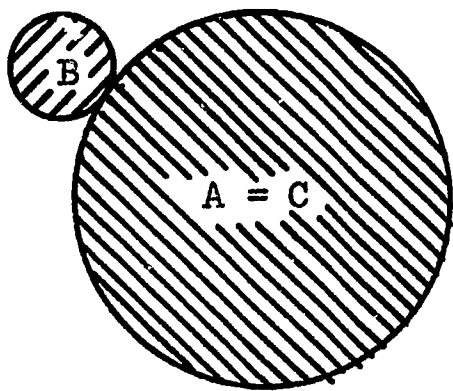
B = Wang San (EXC)

C = sange (ren) (SCP^a)

three

The slant lines in the same direction indicate that B and C have the same sign for their verbs with regard to negation.

If there is no ye 'also' present, the relation of A, B, C can be shown as follows:



chule [Wang San] mei si yiwai gitade

B (EXC)

[nà jiuge ren][quan] dou si le

A (UNV) C (SCP^a)

'Except Wang San, who did not die,
all the other nine persons died.'

The slant lines in a different direction indicate that B and C have different signs for their verbs.

(7) Since the chule 'except, besides' phrase and gitade 'other' are redundant, either of them can be deleted. When the chule phrase is deleted (h, i, j, k) the gitade denotes that reference to something or somebody else is implied, and the presence or absence of the ye 'also' (or hai 'still') suggests what happens to this something or somebody.

(8) In case the noun phrase has an EXC and UNV without SCP and the whole EXC is deleted (131a), the presence of ye 'also' will make the sentence very ambiguous. e.g.:

131a Zhang San ye yao daoqian

also need apologize

'Zhang San also needs to apologize.'

131b Wang San yao peiqian, Zhang San ye yao daoqian
compensate

'Wang San needs to compensate, and besides, Zhang San needs to apologize.'

131c Zhang San yao peiqian ye yao daoqian

'Zhang San needs to apologize besides giving compensation.'

131d chule Li Si yao daoqian yiwai Zhang San ye yao daoqian

'Zhang San, as well as Li Si, needs to apologize.'

(A) may indicate a deletion of a sentence EXC (b), a predicate EXC (c), predicate EXC (d), or several others.

4.4. EXC to UNV and EXC to SCP

The difference between EXC to UNV and EXC to SCP has been briefly discussed in 2. Here, we supply more examples and two diagrams for EXC to SCP for comparison with the above, which are those for EXC to UNV.

132a na jiuge ren chule Wang San mei si yiwai,
those nine person except not die
qitade (bage ren) dou si le
other eight person all die

'Except Wang San, who did not die, the rest of the

nine persons died.'

132b nà jiuge ren chule Wang San mei si yiwai, qitade ren
haiyou Zhang San ye mei si
 still

'As for the nine persons, Wang San did not die, and
 among the rest there is Zhang San who did not die
 either.'

132c nà jiuge ren chule Wang San mei si yiwai, qitade
haiyou sange ren ye mei si
 three

'As for the nine persons, Wang San did not die, and
 there are still three among the rest who did not die
 either.'

132d nà jiuge ren chule Wang San mei si yiwai, qitade ren
ye dou mei si
 all

'As for the nine persons, Wang San did not die, and
 all the rest did not die either.'

132e nà jiuge ren chule Wang San mei si yiwai, qitade si
le sange ren

'As for the nine persons, Wang San did not die, and
 three among the rest died.'

133a nà jiuge ren chule Wang San si le yiwai, qitade

quan dou mei si

all not die

'As for the nine persons, with the exception of Wang San
(who died), none of the rest died.'

133b nà jiuge ren chule Wang San si le yiwai, qitade

haiyou Zhang San ye si le

'As for the nine persons, Wang San died, and besides,
Zhang San died too.'

133c nà jiuge ren chule Wang San si le yiwai, qita haiyou

sange ren ye si le

three

'As for the nine persons, Wang San died, and three among
the rest also died.'

133d nà jiuge ren chule Wang San si le yiwai, qitade ye quan

dou si le

all die

'As for the nine persons, Wang San died, and all the
rest died also.'

Here are examples in which the object has EXC to SCP:

134a B ban de xuesheng chule Wang San yiwai, qitade
 class student

wo dou bu renshi

I all not know

'Except Wang San, I do not know anybody in Class B.'

134b B ban de xuesheng chule Wang San yiwai qitade haiyou
 still

jige wo ye renshi

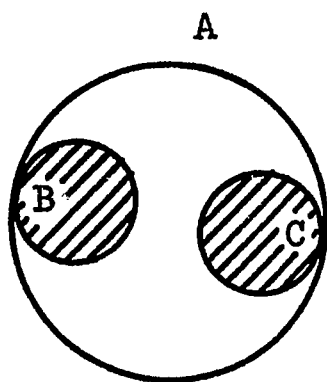
several I also know

'Besides Wang San, I know several others in Class B.'

134c B ban de xuesheng chule Wang San yiwai qitade wo
ye renshi jige

'Besides Wang San, I know several others in Class B.'

The c's can be represented as

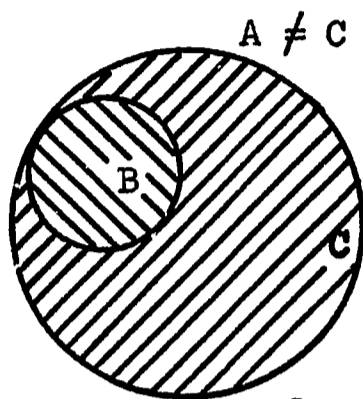


A - jiuge ren (UNV^a) 'nine persons'

B = Wang San (EXC)

C = sange ren (SCP) 'three persons'

And (a's) can be represented as



A = jiuge ren (UNV^a) 'nine persons'

B = Wang San (EXC)

C = (qitade ren) quan (SCP)

'all (others)'

It is clear from the diagrams that EXC to UNV does not affect the value of totality SCP, whereas an EXC to SCP does.

5. Universe and notions of subject and topic.

In this section we shall discuss the problem of topic (or subject) in connection with the notion of UNV which we have introduced.

5.1. The concept of subject.

So far we have been using the term subject for labeling the constituent that has the categorical meaning of actor (before an active verb) or the possessor of some quality or state (before an adjective or a linking verb). It is, therefore, a relational concept in the sentence. In the deep structure it appears in front of the predicate, and the whole or a part of it may be shifted to follow the verb.

5.2. The concept of topic.

Those who reject the notion of transformation generally refuse to regard the ta in (135b) as the object of the sentence, and may analyze it as the subject or an adverbial of reference.

Chao (1965) is rather unique in regarding the ta as the

grammatical subject and in recognizing an understood object ta after the verb.⁴² It can be easily understood that to this group of grammarians, topic is equated with the subject.

Among those who favor the idea of transformation in grammatical analysis, opinions differ as to the nature of the transposition of the ta from a position after the verb (135a) to the beginning of the sentence (135b).

135a wo kanjian ta le

I see he

'I saw him.'

135b ta wo kanjian le

he I see

'I saw him.'

What semantic changes are involved in the transformation from (a) to (b)? The most common interpretations are emphasis, contrast, topicization, and logical subject.⁴³ So far as meaning is concerned, none of these terms seems to be more convincing than the other. If we observe the conditioning factors responsible for such a transposition, however, topicization seems to be the best label, and we shall regard the ta in (b) as the topic of the sentence.

To explain the notion of topic satisfactorily we seem

to have to go beyond our domain, the sentence. For example, (135b) is a much more natural answer to (136) than (135a) is.

136 ni kanjian le ta meiyou?
 you see he not
 'Did you see him?'

The topic is something already known, introduced, or assumed to be understood, such that some new information about it is the focus of interest; that is, it is something at which the point of the message is directed. Hence it may be the subject, the object, or some adverbial which denotes what is already known (and hence what appears in some previous sentence or the life context) that assumes the role of the topic.

In the surface structure, the topic always appears at the beginning of the sentence (a, b), or the predicate (c).

137a wo du le zheben shu le
 I read this book
 'I read this book.'

137b zheben shu wo du le
 this book I read
 'I read this book.'

137c wo zheben shu du le
 I, this book read 'I read this book.'

In (a) and (c) the subject coincides with the sentence topic; in (b) and (c) the object assumes the sentence and predicate topic, respectively.

To discuss how this notion of topic should be incorporated in the base structure would be in the domain of extension grammar, which is beyond the scope of our present study--sentence grammar. Nevertheless, it would not seem irrelevant for us to discuss what types of and what part of noun phrases are eligible for the topic, in connection with the notions of universe and scope.

5.3. Universe and topicization.

From what we discussed in Section 2, on definite and indefinite reference, and in Section 3, on the positions of the components of the noun phrase (especially in 3.5.5.), it should not be hard to see that there are some internal elements that condition the eligibility of a certain part of the noun phrase to assume the role of topic (which is, however, externally conditioned; i.e. conditioned by factors outside the sentence).

It seems generally true that scope, if it is separated from the rest of the noun phrase, often plays the role of the point of the message, or the main part of the comment about

topic. This part of the noun phrase, therefore, is generally not eligible for the role of the topic. (Indefinite scope with an unspecified universe, however, may be topicized under a certain condition.)

The universe, in contrast with the scope, is generally already known, definite, and helps identify the scope.

It is, of course, the head noun and this part of the noun phrase that are eligible for the role of the topic. It will be recalled that in Section 3.5.5. most cases of SCP are found to be obligatorily separated from the rest of the noun phrase. This may not necessarily mean that the rest of the noun phrase should be obligatorily topicized. (The topicization, to be sure, is externally conditioned.) But it means that in case the NP is the object, either the noun phrase should be turned into the form UNV + N + de + SCP or the UNV + N should be topicized, i.e. transposed to the beginning of the predicate or the sentence, and that in case the NP is the subject, either the NP should be turned into UNV + N + de + SCP, or the SCP should be excluded from the topic; i.e. SCP is transposed to follow the verb, or the modifier marker de is deleted or replaced by you. Within the scope of sentence grammar the choice between the two possibilities in either case seems to have to

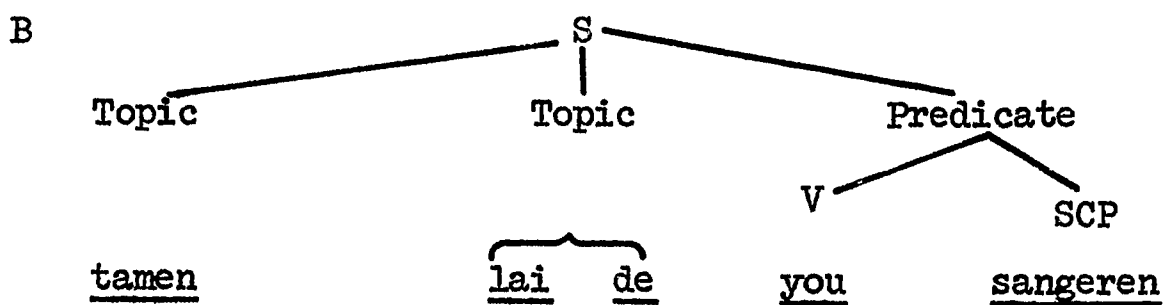
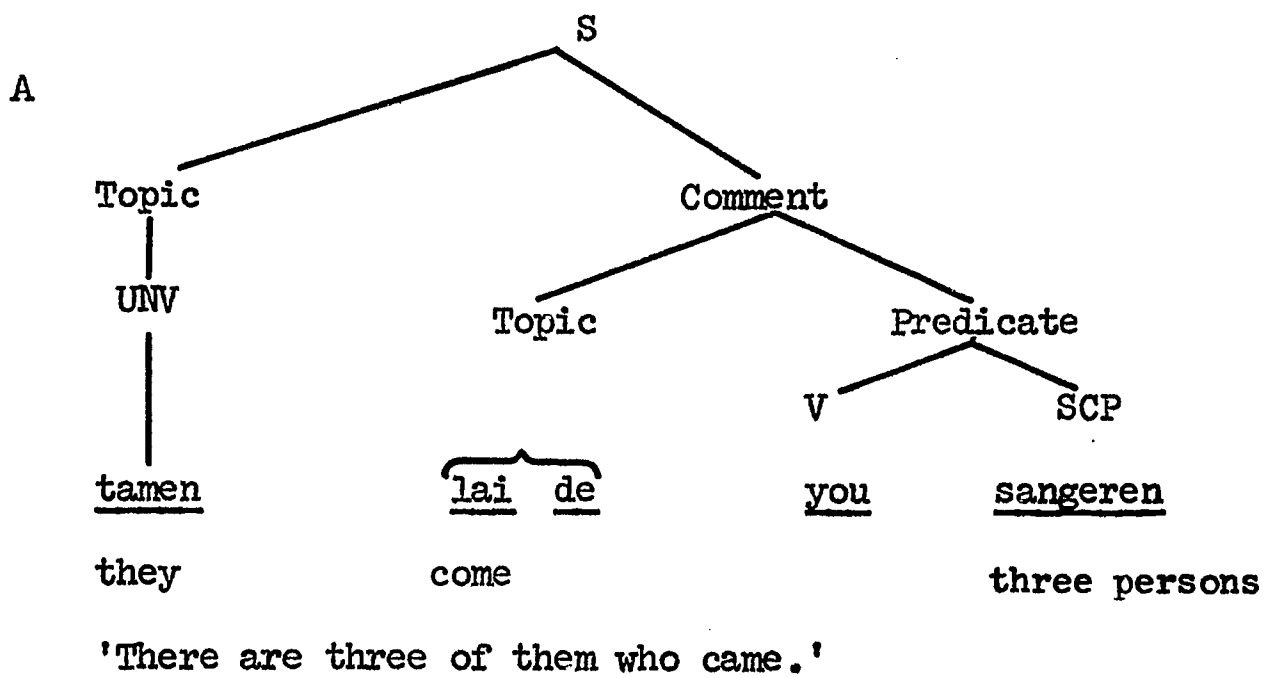
be regarded as arbitrary.

5.4. Scope and predication.

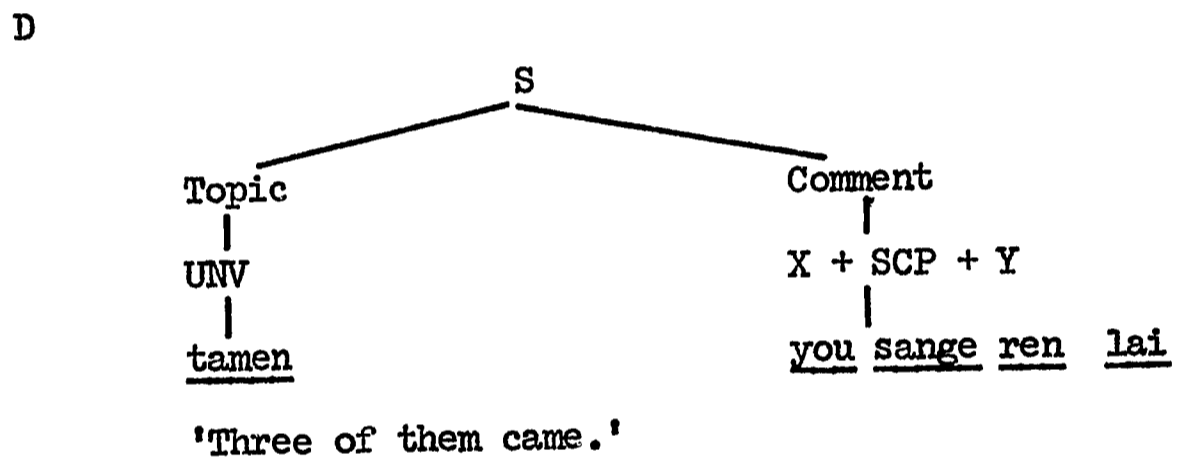
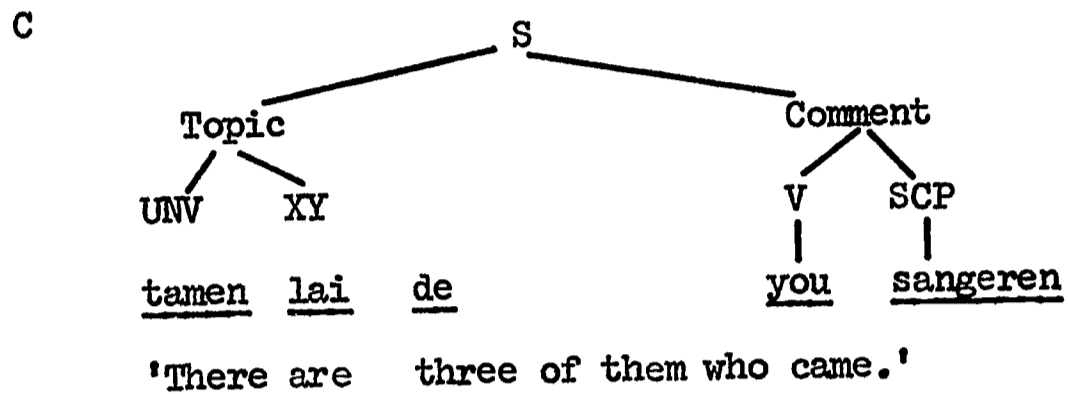
Since the predicate or the comment is that part of the sentence that carries the point of the message, and since scope is often the point of the message, it is very common for the scope alone to assume the role of predicate or comment in the sentence. We shall refer to this as the predication of scope.

In predicating the scope, the verb used may be the copular shi 'be' the existitive you 'there be, have' or other quantitative verbs like da 'reach, amount to.' Since there are differences in meaning among these verbs, the choice among them had better be determined in the Base than introduced transformationally.

The predication of scope implies that the rest of the sentence is topicized, which of course includes the universe. An exclusive predication of scope and an exclusive topicization of universe may or may not cooccur in the same sentence. When they do, the surface structure can be interpreted in two ways, A or B.



It seems better to eliminate either structure A or B as superfluous, since either one suffices to account for its difference from C, where SCP is predicated, and D, where UNV is topicized.



Here are further examples for topicization of UNV (a's), in contrast with predication of SCP (b'). It should be mentioned that when the main verb or a partitive scope is negated, or when SCP is expanded into Degree + Adjective, a sentence without an exclusive predication SCP may sound unnatural, or even ungrammatical.

A. SCP = (D) + Numeral Phrase:

138a nà baben shu you (zhe) sanben mei maidiao

'Of the eight books, (these) three were not sold.'

138b nà baben shu mei maidiao de shi zhe sanben

'Of the eight books, these were the three which were not sold.'

B. SCP = ADscp + N + conj + N:

139a tamen zhi you Wang xiansheng he Li xiansheng lai guo

'Of them, only Mr. Wang and Mr. Li have been here.'

139b tamen (dangzhong) lai guo de zhi you Wang xiansheng
he Li xiansheng

'Of them, there are only Mr. Wang and Mr. Li who have been here.'

C. SCP = Neg + Degree + Adjective (with a positive main verb):

140a nàxie xuesheng meiyou nàme duo lai

'Of those students, not that many came.'

140b nàxie xuesheng lai de meiyou name duo

'Of those students, there were not that many who came.'

D. SCP = Neg + Degree + Adjective (with a negative main verb):

141a nàxie xuesheng meiyou nàme duo ren mei lai

'Of those students, those who did not come were not that many.'

141b nàxie xuesheng mei lai de meiyou nàme duo

'Of those students, there were not that many who did not come.'

E. SCP = Neg + Partitive:

142a neixie shu meiyou yiben haokan

'None of those books is interesting.'

142b neixie shu haokan de yiben ye meiyou

'Of those books, there is no single book that is interesting.'

142c neixie shu yiben haokan de ye meiyou

'Of those books, there is no single book that is interesting.'

Generally, the negative marker goes with the partitive. But sometimes they may be separated by other elements, as in (c).

It can be expected that an interrogated SCP (indicated by Q[X] in the following) tends to be predicated, and an answer to such a question would be improper, unless the SCP, the main concern in the answer sentence, is likewise predicated.

F. SCP = Q [D] + Numeral Phrase:

143a na bawei keren you na sarwei mei lai?

'Of those eight guests, which three did not come?'

143b na bawei keren mei lai de shi na sarwei

'Of those eight guests, which were the three who didn't

come?'

G. SCP = Q[D + NUP]:

144a nà bawei keren you nǎ jiwei mei lai?

'Of the eight guests, how many did not come, and who are they?'

144b nà bawei keren meilai de shi nǎ jiwei?

'Of the eight guests, how many were there who did not come, and who are they?'

H. SCP = Q[NUP]:

145a nà bawei keren you jiwei lai le?

'Of the eight guests, how many came?'

145b nà bawei keren lai de you jiwei?

'Of the eight guests, how many were there who came?'

I. SCP = Q[N]:

146a nàxie ren ni renshi shei?

'Of those people, whom do you know?'

146b nàxie ren ni renshi de you shei?

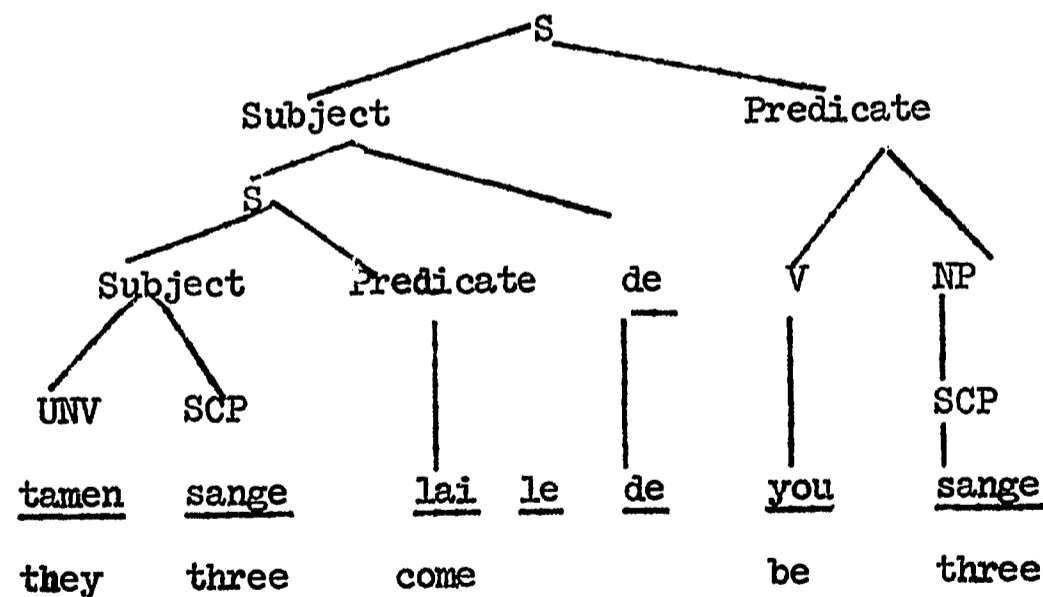
'Of those people, who are those whom you know?'

5.5. Alternative for topic and comment.

In sections 1. through 4. we assumed that sentences (6a) and (b) are identical in (denotative) meaning, and hence share

the same deep structure. In this section we are assuming that two such sentences are different from each other, and should have different deep structures. We have introduced the notions of topic and comment to account for the differences between pairs of sentences like (6a) and (b). However, we are not clear as to what kind of status topic and comment have in the grammar, and here we shall discuss briefly some alternatives for treating them.

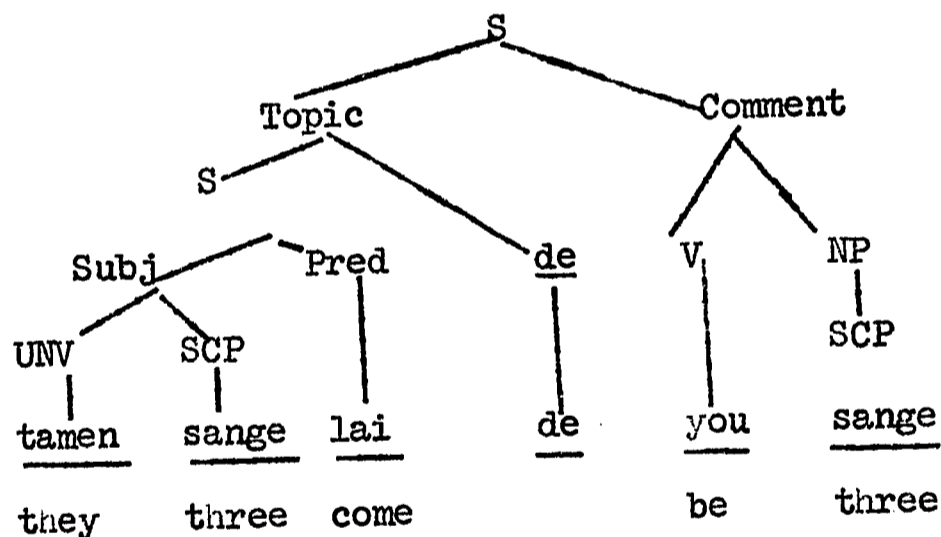
(1) The notions of topic and comment are equated with subject and predicate, respectively, and the idea of topicization or predication is expressed through embedding plus permutation or deletion transformations.



(2) The notions of topic and comment are, as tentatively suggested by Chomsky (1965), implied in the surface structure

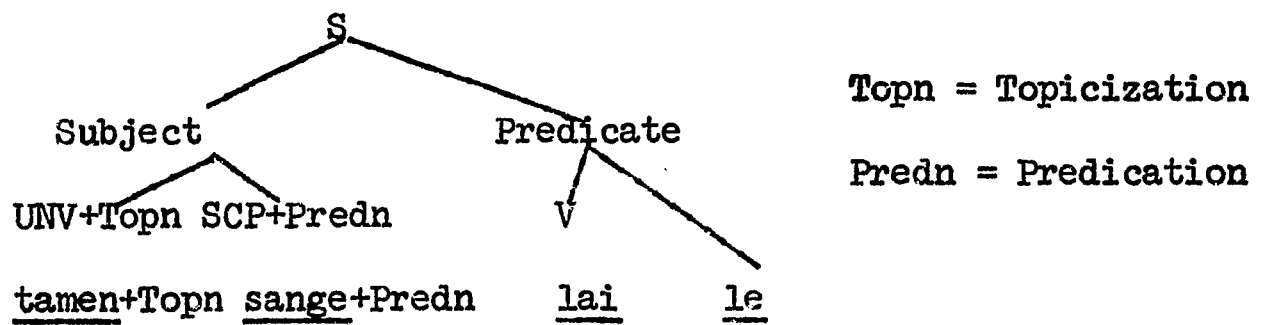
(the leftmost NP immediately dominated by S in the surface structure) and need not appear in the Base.⁴⁴

(3) They are regarded as high order categories that may dominate a sentence or categories like subject or predicate, just as we have shown in the beginning of this section. This would mean that the denotative meaning is shown in the lower portion of P-markers, and relations like topic-comment are shown in the higher portion of P-markers.



It should be mentioned that the notions of topic and comment have more bearing on the final arrangements of sentences.

(4) They are treated as formatives that appear in the Base so as merely to trigger a permutation transformation with or without additional markers like de, de you, de shi, you. Therefore the deep structure of the sentence would be somewhat like:



This approach as well as the second one will meet with difficulties in deriving the desired surface structures, owing to the inadequacy of the current conventions for writing transformational rules.

REFERENCES

- Annear, Sandra Sue. 1965. English and Mandarin Chinese: Definite and indefinite determiners and modifying clause structures. POLA (Project on Linguistic Analysis) Report 11. (Ohio State University M.A. thesis, 1965.)
- Bach, Emmon. Nouns and noun phrases. (Unpublished paper distributed through PEGS [Program for Exchange of Generative Studies, M.I.T.])
- Chao, Yuen-Ren. 1965. Grammar of Spoken Chinese. Berkeley, University of California Press.
- Cheng, Robert L. 1966. Some aspects of Mandarin syntax. (Unpublished Indiana University Ph.D. diss.)
- Chomsky, Noam. 1965. Aspects of the theory of syntax. The Hague, Mouton.
- Dean, Janet. May, 1966. Determiners and relative clauses. (Unpublished paper distributed through PEGS.)
- Fillmore, Charles J. 1965. Indirect object constructions in English and the ordering of transformations. Monograph on Linguistic Analysis 1. The Hague, Mouton.

Fincher, Beverly Hung. 1966. A fragment of Mandarin syntax.

(Indiana University Ph.D. diss.)

Hashimoto, Ann Y. 1966. Embedding in Chinese. POIA Report 13.

(Ohio State University Ph.D. diss.)

Householder, Fred W. and Robert L. Cheng. Universe-scope

relations in Chinese and Japanese. (To appear in International Journal of Oriental Languages.)

McCawley, J. D. April, 1967. How to find semantic universals in the event that there are any. (Unpublished paper distributed through PEGS.)

Rand, Earl. 1966. The syntax of Chinese interrogative structures.

(Unpublished University of Texas Ph.D. diss.)

Ross, John Robert. May 16, 1967. Auxiliaries as main verbs.

(Unpublished paper distributed through PEGS.)

Wang, William S-Y. 1964. Some syntactic rules for Mandarin.

Proceedings of the Ninth International Congress of Linguistics 191-202. The Hague, Mouton.

_____. 1965. Two aspect markers in Mandarin. Language

41.3:457-70. (Also in POIA Report 8 [Dec., 1964].)

Wierzbicka, Anna. March, 1967. Mind and body--from the semantic point of view. (Unpublished paper distributed through PEGS.)

FOOTNOTES

¹ This is a revised version of the sixth chapter of my doctoral dissertation, entitled "Some Aspects of Mandarin Syntax" (1966) at Indiana University. The original heading of the chapter was "Scope as Part of the Determinative."

With the collaboration of Professor Fred W. Householder, I have written a paper entitled "Universe-Scope Relations in Chinese and Japanese," where a comparison is made between Chinese and Japanese with regard to the universe-scope relation as a semantico-syntactic notion.

I wish to thank Professors Y. R. Chao, Samuel Martin, and W. S-Y. Wang and Mr. Thomas Roberts for their comments and suggestions on my dissertation; these have been very helpful in my revision. I would also like to express again my gratitude to Professor F. W. Householder for his patience and kindness in guiding my dissertation, and for his continued encouragement and concern for the improvement of this study.

^{1a} I do not consider the following interpretation, though it may be possible for the English translation.

(v) BL U BC

The following sentence might express (v):

ta xiang kankan tushuguan li de shu han yong zhongwen xie de shu

'He wants to see books that are in the library and also books that are written in Chinese.'

² See Bach for a discussion of how English noun phrases should be derived. He asserts that all nouns should be derived from relative clauses based on the predicate-nominal constituent.

³ I am not sure that all instances of these words in Mandarin are adjunctive to nominals, but in most cases where these words appear to be verbal adverbs, they are actually noun adjunctives and should be regarded as part of noun phrases. In the following example, the zhi which is generally regarded as a verbal adverb is actually a modifier of the noun phrase chang liuxing gequ, 'to sing popular songs,' or of the noun phrase liuxing gequ 'popular songs,' which are more closely related to (b) and (c), respectively.

(a) wo zhi hui chang liuxing gequ

'I only can sing popular songs.'

(b) wo hui de zhi shi chang liuxing gequ

be

'The only thing I can do is sing popular songs.'

(c) wo hui chang de (ge) zhi shi liuxing gequ

(c') ge wo hui chang de zhi shi liuxing gequ

'The only songs that I can sing are popular songs.'

That chang liuxing gequ 'to sing popular songs' would have been better analyzed as nominal and the hui 'can' as a main verb is supported by several considerations. Some of the reasons given by Ross (May, 1967) apply to Chinese, too.

⁴ This explanation is similar to Bach's suggestions for noun phrases. This example shows the difficulty of recognizing noun phrases in sentences, since we are not merely giving classificatory labels to elements in actual sentences, but are trying to postulate deep structures, and such postulations are more or less determined by semantic considerations.

⁵ Some generative works on Chinese syntax are Wang (1964, 1965), Fincher (1965), Hashimoto (1966), and Rand (1966).

⁶ I am not, however, writing about universal generative semantics. My Base is an ad hoc postulation for the interrelationships between meaning and form in Mandarin sentences.

⁷ Another category the members of which often imply deictic reference is that of the pronouns wo 'I' and ni 'you,' and sometimes ta 'he, she.'

⁸ Cf. Janet Dean's (1966) description of English determiners

and her remarks about English indefinite and definite articles, which correlate more closely in occurrence with unique and non-unique reference than do their Chinese counterparts.

⁹ you is deleted optionally before the verb and obligatorily after the verb. Nevertheless, we can regard the presence of NUP and the absence of any other determiner as a 'marker' of indefiniteness.

¹⁰ The nà in (33a) is ambiguous; it could be either definite or deictic. As a definite marker the noun can be understood as:

women gang tiguo de nàge ren

we just mention that person

'this particular person we just mentioned'.

zhege and nage before a proper noun are also used to differentiate between more than one reference that may occur to the hearer. The proper noun here can be regarded as a common noun. Hence (33a) can be understood as:

wo pian bu ba nàge Wang San (bushi qitade nàge) dailai

'I stubbornly did not bring that Wang San, not the other Wang San, here.'

¹¹ If one believes that the same Base should be shared by all languages, this question is not likely to arise, since there must be some languages which mark definiteness and indefiniteness

obligatorily. See Bach and McCawley (1967) for views in favor of universal semantics as the Base.

¹² I analyze nàben as a contraction of nàyiben, nàxieshu as a contraction of nàyixieshu, etc., where deletion of yi is a particular case of a more general phenomenon. Cf. wo xiang kan ben shu 'I would like to read a book.' wo xiang kan xie shu 'I would like to read some books.'

¹³ I adopt a convention in which A [B] stands for 'A dominates B.'

¹⁴ This seems to involve the theoretical issue of whether a solution reached on the basis of a simplicity criterion alone will coincide with one which takes the speaker's intuition as a complementary criterion. If one accepts simplicity as the sole criterion for choosing between two alternative solutions, then one would not hesitate to derive all cases of D + yixie + Mc from D + NU + Mc (where NU is a numeral greater than one), since this seems to make the whole grammar simpler than the other alternative. One way to get away from this problem is not to recognize any transformation between the numerals and what we call the pronomeral, yixie 'some,' jige 'several,' etc.

¹⁵ Pretransitive: a marker used for transposition of the object from after the verb to before it. BA has the shapes ba, jiang (lit.), and guan (used chiefly when the verb is jiao 'call').

¹⁶ I use the terms subject and object in the sense of actor and acted-upon, respectively. I use the terms topic and comment for the concepts which Chao and others call subject and predicate, respectively.

¹⁷ BEI is realized as bei, jiao, gei, rang.

¹⁸ ~~The optional element zhi 'only' will be discussed in detail in 3.5.~~

¹⁹ If surface structures are the chief concern in our analysis, there are indeed several reasons in favor of regarding the second expressions as a quantitative adverb of the verb. However, since we feel that (49) and (51) are similar in meaning and should have similar deep structures, this possibility is rejected.

²⁰ Though it seems reasonable to assume that all definite nouns have understood MOD's, this is not further discussed. See Bach, "Nouns and Noun Phrases."

²¹ This interpretation is more suitable because it

also accounts for the categorial meaning of Prt and MOD.

²² Following W. Wang (1964), "Two Aspect Markers in Mandarin," we are analyzing mei as the Neg in Neg + ASP, and bu or bushi as the Neg in other environments.

²³ By this we mean shifen zhi yi 'a tenth,' yicheng '10%,' yiban 'a half,' baifen zhi shi '10%,' etc. which we are not treating further.

²⁴ ADscp zhi 'only' will be discussed later.

^{25a} If the verb cooccurs with BA or BEI, zhi can occur before BA, BEI or before the verb. This may be one of the reasons why BA, BEI are regarded as verbs by some authors.

^{25b} Some speakers distinguish between zhi and cai, reserving cai for contexts where a time dimension is implied, as in this example. For most speakers the two are interchangeable in the sense of 'only.'

²⁶ Some types of entailment rules suggested by Fillmore may be used for a formal characterization of this sort of semantic implication (1965).

²⁷ For an explanation of this hai 'still,' see (4).

²⁸ For convenience of discussion in the following passages,

let a stand for shiwān ben '100,000 M,' A for zai tushuguan li 'in the library,' b for wugian ben '5000 M,' and so forth.

²⁹ In comparing English and Chinese relative clauses, S. Annear (1965) maintains that type (ii) is not available in Chinese. Though it is true that most Chinese are not even aware of the ambiguity in D + NUP + MOD + N, the distinction is clearly made in other arrangements: b + A + B + N; c + A + B + N can be said as A + B + N + lide + c 'the 100 books among those which are in the library and written in Chinese,' and b + A + B + N cannot be.

³⁰ We are not certain, however, whether in P-rules or in tree representation, of how we should show the distinction between coordination and subordination. There must be some formal distinction for, say, B + b, 'the 5,000 books written in Chinese' and B + c '100 of the books written in Chinese,' which we indicate by MOD+NUP indifferently as terminal strings.

³¹ See R. Cheng (1966) for a discussion of the postulation of YEAR + MONTH + DAY + (NOON) + AR + MIR + SEC as the underlying form, from which all expressions for point in time and duration of time can be derived. (See examples below.)

³² Our analogy in (3.7.1.) of listing and definition in set theory may fit here. The proper nouns here are the listed members in the set, whereas the durative expression is a quantitative description of the set. But it should be remembered that the proper time expressions also have a durative nature and seem to be present here to supplement the durative expressions proper. A proper time expression in this position without a durative expression is ungrammatical. Hence it is proper to assert that the scope time expressions appearing after the main verb are all durative expressions (DUR).

³³ We must regard the zhe 'this,' na 'that' in (102) as determinatives of the individual members, and not of the whole set.

³⁴ An integrated analysis for a similar relationship between modifiers seems desirable. Hence we may analyze the two qualifiers Aa in AaN in Section (3.5.4.) as qualifiers in apposition, in contrast to subordination. Or, if we want to reserve the term apposition exclusively for nouns, we may derive AaN from ANaN, where AN and aN are two nominals in apposition.

³⁵ An example of an element in the noun phrase which is conditioned by other elements in the same noun phrase, as well

as by a certain type of conjoining of nouns is seen in languages where the plurality of the whole subject is determined not only by the determinative(s) of a noun but also by the conjoining of nouns. 'The two boys are my friends. John and Bob are my friends.' Here plurality is a notion inherent to the whole noun phrase and should be represented by a morpheme or a formative. How this notion should be formalized and how it should be introduced in a transformational grammar is a similar meta-theoretical problem to what we have encountered here. Deriving all plurals by iteration of conjunctions and all numbers by one-to-one matching with numerical order, for example, is a plausible solution to this problem.

³⁶ We would use the term owner-owned for such cases as (117a) and (118a), which are in no way eligible for universe-scope relationship. Unlike person and body-part relationship, which are permanent and natural, this type of relationship is temporal and conventional. It should be noticed that the distinction between the two types of relationship is semantic as well as grammatical in Chinese. For a study of expressions about the person and parts of the body in English see Anna Wierzbicka, "Mind and Body--from the Semantic Point of View".

37 If we regard (123a) as a derivation of (123a'):

123a') lanzili de juzi you yige juzi lan le

'Among the oranges in the basket, there is one that has got rotten.'

the universe before you should be regarded as the subject exclusively.

38 Whether this you 'to have' is different from the you 'to be in' or 'there is' in class-member construction in Chinese is a question of analysis. It is a very probable analysis that Chinese does not distinguish these types of possession: (1) possession by an object, (2) possession by a place or a class, (3) possession by something unknown. (Hence possession by unspecified universe means indefiniteness.) The possibility of deriving the indefinite marker from the verb of possession also exists in Japanese.

kare wa hon ga aru

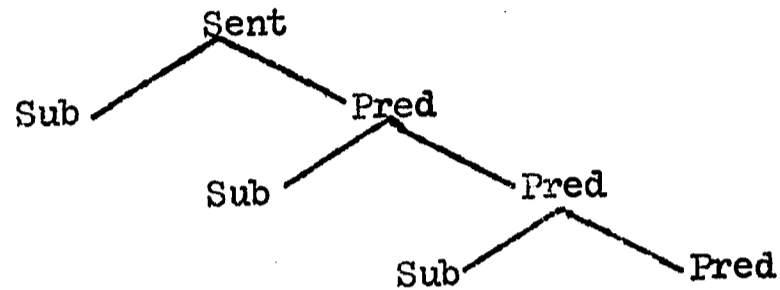
'He has books.'

aru hon

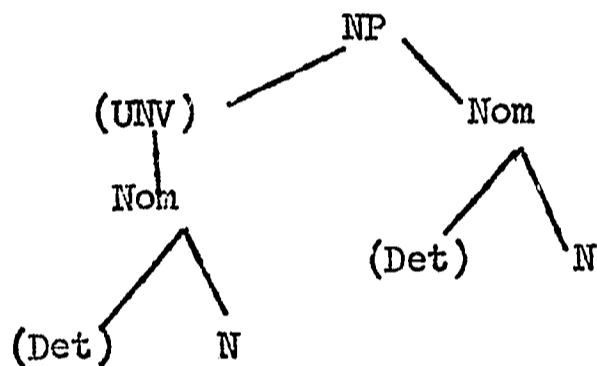
'some book'

39 Under this approach, we may need not to regard (b) as a case of class-member relation. (Cf. 116d', e', f'.)

40 Compare their so-called successive subject-predicate predicates with our base structure for (126).



⁴¹ Or we may have



where the universe-scope relation is indicated by UNV. This is a better alternative, since we often have NP's that have only one nominal.

⁴² A transformationalist would interpret such an understood object (ta) as existing in the deep structure and deleted in the surface structure. But in the approach Chao is seeking (i.e. IC analysis), neither such a postulation nor a deletion transformation have any place.

⁴³ Chinese does not seem to be alone in having such a problem. For example, Japanese has the problem of differentiating NP no NP ga (usually regarded as a single subject), etc. from

NP wa NP ga (usually regarded as a double subject), etc. or NP_o, etc. from NP wa. Of interest is the view that the change from no, ga, etc. into wa in Japanese is a case of deemphasis. We think this interpretation may work here for Chinese, though in the case of Chinese change of order instead of change of case marker is involved in topicization. For such a transposition is an indication that the transposed element is already known, and should be excluded from the predicate, which is the focus of interest. Most of the native speakers with whom I discussed this, however, told me that such a transposition is for emphasis, underlining the fact that the ta, and nobody else, is the topic of the sentence.

⁴⁴ See Chomsky, 1965, p. 221, footnote 32.

"It might be suggested that Topic-Comment is the basic grammatical relation of surface structure corresponding (roughly) to the fundamental Subject-Predicate relation of deep structure. Thus we might define the Topic of the Sentence as the leftmost NP immediately dominated by S in the surface structure, and the Comment of the Sentence as the rest of the string. Often, of course, Topic and Subject will coincide, but not in the example discussed . . . "