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NOUN PHRASE SUBSTITUTES AND ZERO
ANAPHORA IN MANDARIN CHINESE

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This study finds its inspiration in the possibilities for linguistic description which have been made available to us by the recent development of the stratificational model of grammar. I am particularly indebted to my former teacher, Professor H. A. Gleason, Jr., from whom I learned, in the context of a course on stratificational grammar, of kinds of regularities to look for in language that I had not previously been aware of. It is my main purpose in this study, then, to present observations about aspects of Chinese grammar that have not been studied in detail before. In particular, I present observations on regularities in the system of anaphora in Chinese, along with some related aspects of the grammatical system. It is hardly an accident that, although I have attempted to begin with only the assumption that a grammar should be generative, I have concluded that, for a description of the facts I have observed about Chinese, only the stratificational model is minimally adequate. I leave it to the reader to judge whether or not my interpretations of the data and my arguments about their implications for an adequate grammatical model reflect an unwarranted bias.
ABSTRACT

This study is concerned with the system of anaphora in Mandarin Chinese, i.e., with the ways succeeding references to the same person, thing, or concept, etc., are made within a discourse. Evidence based on the examination of texts of dialogues and narratives, supplemented with work with an informant, is presented for the following patterns.

A subject (topic) of a clause, whether or not a goal of the action in the verb, may be left unexpressed, with the reference still clear, if the subject of the preceding clause (within the same sentence or in the preceding sentence) has the same reference. Such subjects are called zero subjects. Other restrictions on, or conditions for, the use of zero subjects are discussed, as well as the degree to which it is optional, in the case of references to persons, to use a pronoun rather than zero.

This study also includes discussion of the use of pronouns rather than noun phrases (including single nouns) in reference to a person or persons other than the speaker or listener or groups of people involving them. With certain exceptions, a pronoun refers to the same person or persons as the nearest preceding pronoun or noun phrase, as long as the person and number are appropriate. The degree to which it is optional to use a pronoun or a noun phrase
Objects (i.e., goals which follow verbs) with specific, non-human referents may be left unexpressed if the object of the preceding verb is the same (the verb itself may be different). Where such objects must be overtly expressed, the pronoun ta is sometimes used with either singular or plural reference. Objects with unspecified, non-human referents (unspecified as to number as well as to identity) may be left unexpressed if the object of the preceding verb is the same.

It is argued that these zero subjects and objects have to be accounted for in an adequate description of the formal linguistic structure of the sentences in which they are found. In these terms, it appears that there is a significant class of transitive verbs in Chinese that must have a goal (either in subject or object position).

The conditions under which a noun that is head of a noun phrase may be left unexpressed are also presented in this study. Usually, there is some contrastive emphasis on the modifier of that noun and the same noun appears in a previous noun phrase.

The patterns for noun phrases used in succeeding references to the same referent are also described. Of special interest is the use of an unmodified noun as a type of substitute.

Finally, it is argued that a consistent immediate
constituent analysis cannot account for the necessary distinction between goal subjects and non-goal subjects or for the structurally significant zero substitutes. Nor can the type of structure generated in the phrase structure component of a transformational grammar do so. The possibilities of accounting for these things in a semological network which is one of several structures corresponding to different strata in the system of grammar are explored.
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INTRODUCTION

This dissertation examines several related problems in Mandarin Chinese grammar that arise in the use of noun phrases or their substitutes in a discourse.

A discourse can, for most practical purposes of this study, be defined as a stretch of speech by one person in the form of a narrative or exposition all the parts of which are related in subject matter, or as a stretch of dialogue by two or more people that has unity of subject matter. A discourse as thus defined may be a part of a larger discourse, e.g., a dialogue which is reported within a narrative. It is to be noted that a change of speaker in a dialogue is not considered the beginning of a new discourse; the change of reference of the first and second person pronouns from one speaker to the next does not obscure the essential unity of a dialogue type discourse. The question-answer sequence is also a particular characteristic of this type of discourse.

The term "noun phrase" (NP) will here be used for constructions in which the head is a noun or for an unmodified noun. "NP" will not be used to refer to other types of constructions which function syntactically as noun phrases do—that is, I distinguish by the use of other terms.
substitutes for noun phrases: pronouns, constructions of noun modifiers without the head noun, or zero.

A zero substitute for an NP refers to those places where it is clear that a sentence contains a reference to a person or thing\(^1\) or to a type of person or thing previously referred to by an overt NP or NP substitute but where this reference is not expressed by means of an overt morpheme or construction of morphemes. Such situations are, of course, to be distinguished from cases of zero allomorphs.

Zero also figures in those NP substitutes which are constructions of noun modifiers but in which there is no head noun. One could say that there is zero head where it is clear that there is a reference to a kind of person or thing that has already been previously referred to by an overt noun. Such zero heads of NP substitutes must be distinguished from the zero substitutes for NP's. An example of a zero NP substitute is

\[\text{Zhèi kè yǔ-fǎ bǐ-jiāo fù-zá, ŭ nǐ zhǎng-wò le ma?}^2\]

\(^{1}\) "Person or thing" will be used, for lack of a better term, as the name of the class of referents that nouns refer to. It includes abstract concepts as well as concrete objects.

\(^{2}\) The system of romanization that I use is that adopted on the mainland of China. However I separate syllables within words with a hyphen. Where a word in Chinese requires more than one word in the English glosses given between slant lines, these two or more English words will be joined by hyphens. There are cases where more than one word in Chinese is joined together by hyphens because the single words are not easily glossed separately. In other cases it is difficult to decide where word boundaries come.
This grammar lesson is rather complicated; have you mastered it?

In this example it is understood that zhèi kè yǔ-fǎ is the intended goal of the action of "mastering." An example of a zero head noun is

(A) Yǒu liàn-xí běn-zì mèi you? (B) Yǒu, nín yào shén-mo yàngr de ø?

/(A) Have exercise book not have? (B) Have, you want what kind modifier-particle ø?/

'(A) Do you have exercise books? (B) Yes; what kind do you want?'

Here the meaning of the second question is equivalent to that of Nín yào shén-mo yàngr de liàn-xí běn-zì? /You want what kind modifier-particle exercise book?/ 'What kind of exercise book do you want?'

Linguists in the past have been reluctant to assert that such zeros have a formal function in the linguistic system of a language. It is not denied that persons or things usually represented by overt nouns or NP's are referred to in such sentences, but they are considered to be "understood" only--they are not part of the formal grammatical structure of the sentence. Elements in the formal system must have their justification within the system and not outside of it. In the matter of zero allomorphs, it was felt
that there was sufficient formal evidence for recognizing a zero functioning in the grammatical system. The zero was seen to function in paradigms of certain words exactly as overt allomorphs did in paradigms of other words of the same class. For example, the paradigm sheep:sheep parallels the paradigm cat:cats.

The question that I wish to raise, then, is whether or not there is formal justification for recognizing a grammatical function for zero substitutes and zero noun heads in Mandarin Chinese. If it is found that the system of anaphora has functional holes which are neatly filled by zero substitutes, then it would seem that we have the type of evidence we need for giving these zeros a place in the grammatical system. One of the first and main parts of this dissertation is, then, to present what I have been able to discover about the Chinese system of anaphora. I will attempt to show that, although the evidence may not be as clear cut as a set of morphological paradigms upon which we base our willingness to recognize zero allomorphs, still there is sufficient evidence to warrant giving zero substitutes and zero noun heads a formal function in the grammar.

To present such evidence is, however, not all of my concern. I also discuss the theoretical problems that are raised by giving zeros grammatical functions. It will be assumed here that a linguist wants to provide a generative grammar for a language, i.e., to provide a set of rules that
enumerate the sentences of that language along with their structural descriptions. So the question is what kind of rules provide for functioning zeros, in what sense zero can be said to have a function, or what kind of structures, if any, can contain zeros. In particular, I will be interested in examining how adequately the stratified model of grammar may answer these questions as compared with other models of fewer or only one stratum. For the moment it will be enough to suggest the nature of the discussion by mentioning how the two stratum model of the American structuralist school would deal with zero allomorphs in contrast to the earlier one stratum view.

In the one stratum view, morphemes are classes of allomorphs. Thus in any instance of a sentence it is an allomorph that occurs, not a morpheme. In English /kzts/ the plural allomorph /-s/ occurs, not the plural morpheme, i.e., not the class of similarly functioning allomorphs; obviously /z/, /z/, /n/, and the other plural allomorphs are not found in /kzts/. In this view it is therefore necessary to say that /∅/ occurs in the plural /šiyп/. But this seems a contradiction in terms. How can one say that the form /šiyп/ with a suffix consisting of no phoneme is distinct from the form /šiyп/ with no suffix? It is easy enough to say that /šiyп/ has plurality as a part of its meaning but it is quite another thing to say that /∅/ occurs. In the two stratum view, a morpheme is not a class of
allomorphs; it is a unit that is the same in each occurrence, no matter what allomorph is found to be representing it. Allomorphs are made up of phonemes, but morphemes are not. Morphemes are minimal elements in a structure which is not phonological. Thus the same plural morpheme occurs in /kəts/ as in /ʃiyp/. In /kəts/ it is represented by /s/; in /ʃiyp/ it has no representation—there is no allomorph. This is entirely different from saying that there is a zero allomorph, which involves one in the logical contradiction of saying there is something there that is nothing.3

3 The discussion of zero allomorphs in H. A. Gleason, Jr., An Introduction to Descriptive Linguistics (2d ed. rev.; New York, 1961), pp. 75-76, which uses the same example, sheep, is representative of the earlier one stratum view but also shows a sensitivity to the logical difficulties involved and hints at the stratified view that he later adopts with more consistency. The reason for describing sheep 'singular' and sheep 'plural' differently, he says, "rests ultimately in English-content structure" (as distinct from expression structure, see p. 3); the difference between these two forms, although "covert," is "linguistically significant"; "the recognition of a ∅ allomorph . . . is merely a convenient device for entering all this into our description." (Italics mine.) These quotations show Gleason is aware of certain difficulties which his framework at that time did not allow him to overcome. They arise from the view he held then that both phonemes and morphemes were units of the expression system (cf. p. 11).

Charges of logical inconsistency cannot be made against the view that would recognize a zero allomorph only in those places where absence of an overt allomorph functions to signal the meaning. (See W. Haas, "Zero in Linguistic Description," in Studies in Linguistic Analysis Oxford, 1957, pp. 33-53.) The case of sheep is not of this type. In a sentence like He found the sheep one does not know if plurality is signalled or not. In a sentence like The sheep were found, the plurality is signalled by the verb were (in contrast to was), not by zero. An example of how absence of an allomorph does signal meaning can be found in Russian.
Another, related problem arises in any attempt to deal with NPs or their substitutes in Mandarin Chinese. In this case it is not a matter of whether or not to posit in a sentence a unit or construction that seems not to be there;

Many Russian feminine and neuter nouns in the genitive plural consist only of a stem. These nouns in any other combination of case and number consist of a stem plus an overt suffix. Masculine genitive plural nouns consist of a stem plus an overt suffix. Thus the neuter noun azjör (the stem means 'lake'), even without context, is easily identified as the genitive plural form—as long as it is understood that a whole word is intended.

If I have any argument with this view that recognizes zero only when meaning is signalled by it, it is not that this view is logically inconsistent. Rather it is a matter of difference in basic assumptions about what a linguist is trying to describe. This view does not assume, as I have said I do, that a linguist wishes to provide a generative grammar. Any argument about assumptions like this must have reference to empirical data; it is not logical consistency that is at stake but adequacy in accounting for linguistic data. One possible argument of this type is as follows. I take it that it is a linguistic datum that when a speaker says "He found the sheep," he means either singular or plural (cf. Gleason, op. cit., p. 75: "In any given utterance the word is thought of by speaker and hearer as either singular or plural") unless he is consciously trying to be ambiguous—but even then he is not saying the sentence with the intention of not representing any number at all; it is either one or the other or both. A generative grammar tries, among other things, to account for what this implies about the structure of He found the sheep when the speaker intends it to be meant in the plural; there is something, covert if not overt, in its structure, which corresponds to this idea of plurality, and this has nothing to do with whether or not the listener understands only this one meaning (although this latter fact is also a linguistic datum that needs accounting for). As I understand it, the view that I have tried to describe correctly in the previous paragraph cannot account for these cases where only one thing is meant in a sentence even though the sentence may turn out to be ambiguous from the point of view of the listener if the rest of the sentence or the context is not sufficiently clear to disambiguate it.
it is a matter of whether or not to recognize a distinction in function which, although clearly found in the meaning of a sentence, seems not to be paralleled by a distinction in grammatical form. This is the problem of the so-called inverted objects.

Chinese sentences are often described as constructed of "topics" and "comments." A topic precedes the comment. A common type of topic is an NP that refers to the agent of the action represented by the verb of the comment. Following the verb, within the comment, there may be an object NP that refers to the goal of the action. An example is

\[\text{Xīān-shēng wèn nǐ-mén wèn-tí ma?}\]

/Teacher ask you question question-particle?/

'Does the teacher ask you questions?'

Some topic NP's, however, refer to the goals of the action represented by the verb in the comment. In such cases, there is usually no object in the comment. These topics are the so-called inverted objects. An example is

\[\text{Měi ge xué-shēng tā dōu wèn ma?}\]

/Each classifier student he all ask question-particle?/

'Does he ask every student?'

If "object" is a formal category, it is presumably defined by its position after the verb. There are, of course, no case inflections in Chinese. Similarly, topic as a formal category is defined by its position before the verb. What formal justification is there for saying that some topics
have the same function (goal) as objects? Would this not be disregarding the distinction in position between postverbal objects and preverbal topics on the one hand, and the identity of position of agent topics and goal topics, on the other? So Chao refuses to distinguish agent and goal topics; he calls them all "subjects." And he keeps preverbal (inverted) and postverbal objects distinct; the former are subjects, the latter "objects."  

In the description of the use of NP's and their substitutes in this study, it should become evident that only a gross formulation of grammatical rules can afford to overlook the differences between agent and goal subjects or the similarities between goal subjects and goal objects. On the other hand, it is equally important to recognize the similarity between agent subjects and goal subjects as subjects, as well as to recognize their difference from objects. The problem of how to account for these facts adequately leads again to a comparison of a stratified model with other models. Can either the one or the two stratum view of structuralists or the base component of a transformational grammar, in which grammatical functions are supposed to be defined, adequately provide for the possibility of an element's having two functions at one time?

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The description of the portion of Chinese grammar presented in this dissertation is based on analysis of written texts done in the spoken style or in the pai-hua written style. This was supplemented by work with an informant, particularly in connection with those places where the system allows for options. The spoken style texts used are all the connected discourses given in the Kèwén Text section of the lessons in Modern Chinese Reader 漢語教科書 (Han-yü Chiao-k'e Shu), Parts I and II (Peking, 1963), beginning with Lesson 16. It is believed that these texts are in natural Chinese, and although they are graded syntactically as well as in vocabulary, still, the aspects of syntax that are under control are not those that I am here interested in investigating. And it is just because the authors were sure to include sentences illustrating every type of syntactic construction that they were aware of, that the investigator can feel more certain that in this relatively small corpus he has examples of most of the ways that the expression of anaphora may be affected by other parts of the syntax. The pai-hua style articles used are by Hu Shih (胡適) in 胡適之白話文鈔 (Hu Shih chih Pai-hua Wen-ch'ao) Essays in Pai-hua by Hu Shih (Shanghai, 1925). They are entitled 一個問題 (I Ko Wen-t'ï) "A Question," 趙元任國語留聲片序 (Chao Yüen Ren Kuo-yü Liu-sheng-p'ian Hsü) "Preface to Chao Yuen Ren's National Language Records," and 新生活 (Hsin Sheng-huo) "New Life." These texts were
copied onto spirit masters and about a hundred copies made. The material was arranged on the page so that each page could be cut up into six slips. A different word was underlined on each slip until every word of the several sentences on any one set of slips was underlined. This provided a slip for each word in every NP or NP substitute with as much of the context as was included on that slip. Slips were also marked for each case of a possible functioning zero. In the course of the analysis, these slips were cross-sorted for various purposes such as their grammatical function, their type of construction, whether or not they referred to previously referred to persons or things, or whether or not their head noun appeared in the context.

This study remains indeterminate in so far as it involves the concept of the "sentence." Sentence boundaries are tied up with pause and intonation phenomena, and the punctuation of the written texts analyzed does not distinguish all the types of pauses or intonations. However, it seems that the use of punctuation marks in these texts does reflect pause and intonation differences more than the use of punctuation marks does in, for example, English, where lack of a conjunction joining two clauses would require the division between them to be marked by at least a semi-colon, if not a period, despite intonational evidence of a

5 Ibid., p. 138.
closer relationship. On the other hand, it would be wrong to assume that in the spoken language, pauses and intonation unambiguously mark sentence boundaries. Phonological "sentences" are not in a one-to-one correspondence with grammatical sentences. It is the grammatical sentence which may have to figure in an exhaustive description of the system of anaphora, but, although Chao has done much to indicate the range of possible sentences in Chinese, we still have no clear answer to the question of what a sentence is in Chinese. In this study the term "sentence" will be used to refer to those stretches of written text marked off by a period or question mark.

Another still unanswered problem that affects the degree to which we can completely and consistently describe the use of NP's and NP substitutes throughout a discourse is the matter of topics, or, as Chao calls them, subjects. As already explained, Chao does not distinguish preverbal goals and agents; all are subjects. So are, for him, a number of other types of constructions--words, verb phrases, subject-predicate sequences, and clauses with dependent conjunctions--which express time, place, or condition. 6 This type of analysis is workable until one begins to investigate, as I do, the possibility of distinguishing different types of subjects on the basis of other relationships they are found

in, such as agent or goal of the verbal action, or the possibility of subjects' being represented by zero. Some of the still unanswered questions that arise in this framework are the following. Is a sentence of the pattern goal + agent + verb to be analyzed as a goal subject with predicate made up of agent subject + verb predicate or as a goal subject with predicate made up of agent + verb? Similarly, are postagent time expressions subjects like preagent ones, or not? If a goal subject is represented by zero, is it to be understood as preceding or following the agent subject? It is beyond the scope of this dissertation to try to answer these questions. All I can hope to do is, as mentioned above, to show whether or not there is formal justification for distinguishing agent subjects from goal subjects. It is hoped that some indeterminateness on the matter of subjects will not invalidate my description of the use of NP's and NP substitutes. I call all preverbal agents subjects no matter what their order in relation to goal subjects; and I call only preagent time words or place phrases subjects.

Most other aspects of Chinese grammar that come up in a treatment of NP's and NP substitutes do not involve such controversial issues and generally I follow the analysis and terminology of Chao on such matters.

Chapter II first presents a summary of the possible constructions with N as head or with the head N omitted, and also a summary of the pronoun system. The main part of this
chapter is a description of the conditions under which a head N may be omitted. Chapter III describes the use of NP's and NP substitutes in references to a person or persons previously referred to in the discourse. Chapter IV describes the use of zero as an NP substitute in references to things other than persons. Also included in Chapter IV is a description of the types of NP's used in references to persons or things, subsequent to the first reference. Chapter V discusses the theoretical questions. The final chapter presents a summarizing conclusion.
Noun Phrase and Noun Phrase Substitute Patterns

The purpose of this section is to present, as background for the rest of the dissertation, a summary of the most usual construction patterns for NP's or NP substitutes, at the same time introducing the terms for the various word classes involved. The reader will also need a background in other aspects of Chinese grammar, e.g., verb phrase patterns and clause patterns, but it is probably better to introduce these, along with the word class names involved, where reference to them is first made. For the present, it is sufficient to have the general picture of the clause already described in Chapter I, namely, that before the verb there may be one or more subjects which function as topic and agent, or as topic and goal, or as topic alone, and after certain verbs there may be an object (goal) if that goal has not already been expressed as a topic. Sentences with topics that are agents or goals have been exemplified above (p. 8). た 'he' in the following example is a topic that is neither an agent nor a goal.

たし うし ぐえ.
He is my older brother.

It is not necessary to go into matters of compounding or suffixation. It is enough to warn the reader that a great many words of classes like noun or verb are morphemically compound, and an analysis of stem + suffix has been suggested for others.

Noun Phrases

An NP may be an N alone or an N with preceding modifiers.

An N may be immediately preceded by a single word modifier (a) which elsewhere functions as a noun, (b) which elsewhere functions as a verb, or (c) whose main function is as a modifier in this position. Mod will be used to represent a single word modifier of any of these three kinds.

Examples are

(a) yǔ-fǎ cuò-wu
   /Mod:grammar N:mistake/
   'grammar mistake'

(b) shēng-chān jí-huà
   /Mod:produce N:plan/
   'production plan'

(c) nǚ tóng-xué
   /Mod:female N:classmate/
   'girl classmate'
A large number of N modifiers end in the particle de. One group of such modifiers are adjective phrases, which are defined to include single adjectives (A) or adjectives with preceding modifiers, plus the particle de. (Adjectives are a subclass of verbs.) Some unmodified A's may immediately precede the N without intervening de but not all. The meaning of A-N may be slightly different from that of A-de-N. Examples are

(1) jiù shū
/A: old N: book/
'old books'

(2) hěn shēn de yǐn-xiàng
/very A: deep modifier-particle N: impression/
'a very deep impression'

(3) bù qīng-chu de wèn-tí
/not A: clear modifier-particle N: question/
'unclear questions'

Two A's may modify the N as in

(1) jiān-dān de xiǎo gù-shì
/A: simple modifier-particle A: small N: story/
'simple short stories'

(2) jīn-zhāng, kùn-nán de gōng-zuò
/A: tense, A: difficult modifier-particle N: work/
'the tense and difficult work'

1 Chao, op. cit., p. 393. 2 Ibid., pp. 382-83.
There may be a modifier between the A phrase and the N, as in

**guāng-róng de gémìng chuán-tóng**
/A:glorious modifier-particle Mod:revolution N:tradition/
'a glorious revolutionary tradition'

A superlative A modifier may be preceded by a phrase indicating the sphere in which the comparison is being made. An example is

**wǒ-men bān zhì hǎo de xué-shēng**
/we class most A:good modifier-particle N:student/
'the best student in our class'

Another type of N modifier includes pronouns (P), NP's, place words (Np), or time words (Nt), all with following de. The relationship between the modifier and the N covers a range of meaning somewhat like that expressed in English by the preposition of; "possession" is the most obvious meaning. Examples follow.

(1) with P modifier:

(a) **tā de ài-rén**
/P:he modifier-particle N:lover/
'his lover'

(b) **wǒ-men de gōng-zuò**
/P:we modifier-particle N:work/
'our work'

(2) with NP modifier:

(a) **xué-shēng de shù-mu**
/N:student modifier-particle N:number/
'the number of students'

(b) xué-xiāo fāng-mián de yǐ-jiàn
/Mod:study N:respect modifier-particle N:suggestion/
'suggestions about studying'

(3) with Np or Np phrase modifier (an Np phrase is a phrase with function similar to an Np's):
(a) běi-jīng de tiān-qì
/Np:Peking modifier-particle N:weather/
'Peking weather'
(b) xué-xiào páng-biāo de sū-shè
/Np Phrase: school side modifier-particle N:dormitory/
'the dormitory beside the school'

(4) with Nt or Nt phrase modifier (an Nt phrase is a phrase with function similar to an Nt's):
(a) gāng-cái de wèn-tí
/Nt:just-now modifier-particle N:question/
'the question of a moment ago'
(b) dì-èr tiān de yǔ-fǎ
/Nt Phrase: second day modifier-particle N:grammar/
'the second day's grammar'
(c) shí-jǐu nián yǐ-qián de shí

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3 Páng-biāo, although able to function alone as an Np, may be called a localizer (L) in this Np phrase. It is the head of the phrase xué-xiào pánɡ-biāo. Some L's cannot function alone as Np, e.g., shān, cf. shān shān /mountain on/ 'on the mountain.'
Nt Phrase: nineteen year before modifier-particle

N: matter/

'something that happened nineteen years ago'[^4]

"After personal pronouns de is usually omitted before nouns for personal relations, unless the modification is to be made specially explicit."[^5] Examples are

(1) wǒ-men jiā

/P:we N:family/

'our family'

(2) wǒ mǔ-qìn

/P:I N:mother/

'my mother'

(3) wǒ tóng-wū

/P:I N:roommate/

'my roommate'

De is usually also omitted in the first of two succeeding phrases which would both normally end in de, as in the following example with modifiers zhèi liǎng tiān 'these two days' and bào shang de 'in the newspapers':

zhèi liǎng tiān bào shang de xīn-wén

/P: this two day newspaper on modifier-particle news/

'the news in the newspapers these last two days'

[^4]: yī-qían functions like an L as head of the phrase shí-jiǔ nián yī-qían.

[^5]: Chao, op. cit., p. 387.
Between one of these four types of modifiers usually ending in "de" and the N there may be (a) an A phrase or (b) a single word modifier. Examples for each type are

(a) (i) **wǒ de hǎo pénɡ-you**

/P: I modifier-particle A: good N: friend/

'my good friend'

(ii) **wǒ zuì hǎo de pénɡ-you**

/P: I most A: good modifier-particle N: friend/

'my best friend'

(b) (i) **wǒ de liàn-xí běn-zǐ**

/P: I modifier-particle Mod: exercise N: book/

'my exercise book'

(ii) **rén-mín ɡōnɡ-shè de nán nǚ shè-yuán**

/Mod: people N: commune modifier-particle Mod: male Mod: female N: member/

'male and female members of the people's commune'

The last example has two coordinate single word modifiers, nán and nǚ.

The next type of modifiers corresponds to relative clauses in English. No special class of words like relative pronouns are used. The modifying clause ends in the particle "de". In some cases the modifying clause is defective in that there is no agent expressed, the agent being the N which is modified, as in the first example, or in that there is no goal expressed, the goal being the N which is modified, as in the second example:
(1) zhèi yī tiān qù wǎr de rén
   /this one day go play modifier-particle people/
   'the people that went to play that day'

(2) shàng xīng-qī-lìù nǐ kàn de huà-jù
   /last Saturday you see modifier-particle play/
   'the play you saw last Saturday'

If the modified N has any other function in the modifying clause, there will be a pronoun in that position, as in this example:

nǐ gāng-cái gāi ta dào qiǎn de nǐ-gē nǚ-hár
   /you just-now to her apologize modifier-particle that girl/
   'the girl you just apologized to'

(See below for the explanation of the modifier něi-ge.) In this example tā 'her' refers to the nǚ-hár 'girl.' Certain nouns may be modified by clauses that are complete in themselves (non-defective). Four examples are

(1) wǒ-men shàng kè de jiǎo-shǐ
   /we attend class modifier-particle classroom/
   'the room in which we have class'

(2) wǒ péng-you jiāo è-wén de fāng-fǎ
   /I friend teach Russian modifier-particle method/
   'the method by which my friend teaches Russian'

(3) wǒ zài chuāng-hu wài-biār húi-dá wèn-tí de shì
   /I at window outside answer question modifier-particle matter/
'the incident of my answering the question outside of the window'

(4) wǒ zhào xiàng de jīng-yàn
/I take photographs modifier-particle experience/
'my experience in taking pictures'

Adjective phrases and single word modifiers may be found between clause modifiers and the N. Examples of this are

(1) gēn nǐ shuō bu à xiǎo hǎi-zǐ
/with you speak word modifier-particle A:small N:child/
'the small child talking to you'

(2) tā jiāo wǒ-men de zhōng-wén gē
/he teach us modifier-particle Mod:Chinese N:song/
'the Chinese songs he taught us'

A common type of N modifier is a phrase with a measure (M) as head. An M does not usually occur without a preceding determinative (D) or numeral (Nu). The class D includes the common demonstrative determinatives zhè (zhe) 'this,' nà (nai) 'that,' and nǎ (nai) 'which,' the specifying determinative měi 'each,' and the word dì which makes cardinal numbers ordinal; these latter two fit into most of the same patterns as the demonstrative determinatives. (See Chao, op. cit., p. 759, for the other specifying determinatives. Unlike Chao, I prefer to distinguish numerical and quantitative determinatives from those I call "D.") Very few N's can be modified by a D or Nu without intervening M.

M's are of various types. Those often called
classifiers usually refer to the shape of the N. For example, zhēng is used with N's like zhuō-zi 'table' or zhǐ 'paper' which refer to flat objects, zhǐ is used with N's like yān 'cigarette' or bǐ 'writing instrument' which refer to stick-like objects, and tiáo is used with N's like lù 'road' or kù-zi 'trousers' which refer to long thin objects. Ge is the most common classifier and is not specific as to shape.

Of the several other types of measures (see Chao, op. cit., p. 788), one is the subclass of standard measures, e.g., chǐ 'foot,' cùn 'inch'; another is the subclass of container measures, e.g., bēi 'cup' and bāo 'package.' Of special interest are the M zhòng 'kind, sort' and the M xiāo which indicates a group of several things (the only numeral that may precede it is yī 'one').

The three basic M phrase patterns are D-M, Nu-M, and D-Nu-M. Examples are

1. nèi ge rén
   /D:that M N:person/
   'that person'

2. liǎng ge rén
   /Nu:two M N:person/
   'two people'

3. zhèi liǎng bǐn shū
   'these two books'

4. dì sì jié kè
These M phrases are not followed by de, but there are other cases where de is either optional or required. Three examples are

1. yì shěng de mǐ
   /Nu:one M:peck modifier-particle N:rice/
   'a peck of rice'

2. sān yǐng-lǐ de lù
   /Nu:three M:mile modifier-particle N:road/
   'three miles of road'

3. yì wǔ-zi de rén
   /Nu:one M:room modifier-particle N:person/
   'a roomful of people'

Examples with modifiers between the M phrase and the N are

1. yì gé qī-chē gōng-chǎng
   /Nu:one M Mod:automobile N:factory/
   'an automobile factory'

2. zhèi xiē dà shì
   /D: this M A:large N:matter/
   'these important matters'

3. yì gé fēi-cháng kuài-lè de jiā-tíng
   /Nu:one M extremely A:happy modifier-particle N:home/
   'an extremely happy home'

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6 Ibid., pp. 748-49.
(4) yì xiē wǒ-men guó-jì de qíng-kuàng
   /Nu: one M P: we N: country modifier-particle
   N: condition/
   'some of the conditions in our country'

(5) nèi wèi dài yǎn-jìng de xué-shēng
   /D: that M Clause (defective): wear glasses modifier-
      particle N: student/
   'that student wearing glasses'

A phrase like

nèi xiē dì-zhū jiā de hái-zi
   /D: that M Mod: landlord N: home modifier-particle N: child/

is ambiguous, there being two possible IC analyses corres-
ponding respectively to the translations 'those children
from landlord homes' and 'the children of those landlord
homes':

Sometimes an A modifies the M as in

yì dà zhāng zhǐ
   /Nu: one A: large M N: paper/
   'a large sheet of paper'
The Nu-M modifier may be preceded by other modifiers.

Examples are

1. \texttt{wǒ yí ge pénɡ-you}
   
   \texttt{/P:I Nu:one M N:friend/}
   
   'a friend of mine'

2. \texttt{zhèi yànɡ yí ge chuán-shuō}
   
   \texttt{/D:this M:kind Nu:one M N:legend/}
   
   'a legend like this'

3. \texttt{bān shɑng de jǐ ge tónɡ-xué}
   
   \texttt{/Np Phrase: class on modifier-particle Nu:several M N:classmates/}
   
   'several classmates from our class'

4. \texttt{běi-jīnɡ chénɡ wài yí ge hěn yóu- mínɡ de dì-fānɡ}
   
   \texttt{/Np Phrase: Peking city outside Nu:one M very A:famous modifier-particle N:place/}
   
   'a very famous place outside of Peking'

Note that in some cases these first modifiers have no \texttt{de}. A D(Nu)M modifier may also be preceded by modifiers as in

\texttt{nǐ zhèi jiàn máo-yī}

\texttt{/P:you D:this M N:sweater/}

'this sweater of yours'

Clause modifiers preceding D's are restrictive rather than descriptive, as in the following examples:

1. \texttt{nǐ gěi wǒ jiè-shào de zhèi ge xué-xì fānɡ-fǎ}
   
   \texttt{/you to me introduce modifier-particle D:this M Mod:study N:method/}
'this method of studying that you introduced to me'

(2) zǒu dào tái shàng qu de nèi ge tóng-zhīl
/walk to platform on go modifier-particle D:that M
N:comrade/

'the comrade that is walking on to the platform'

Clauses between a D-M modifier and the N are usually descriptive, but when stressed, are restrictive;7 an example is that given above (example 5, p. 26):

nèi wèi dài yǎn-jīng de xué-shēng

'the student wearing glasses'

Of the several other determinative-like words, three common ones should be mentioned. Ge 'every' may modify an M or may modify the N directly.

(1) gè zhòng fāng-fǎ
/every M:kind N:method/

'every kind of method'

(2) gè rén
/every N:person/

'every person'

Bié de 'other' and quán 'the whole' usually modify the N directly, as in

(1) bié-de fāng-fǎ
/other N:method/

'another method'

7 Ibid., pp. 383-84.
(2) quán xué-xiào
/the-whole N: school/
'the whole school'

A special type of Nu-M modifier reduplicates the Nu-M and adds de, as in

yī ge yī ge de hàn zì
/Nu:one M Nu:one M modifier-particle Mod:Chinese
N:character/
'a large number of Chinese characters one after the other'

Finally, there are a number of quantitative expressions which function in the place of specific Nu-M phrases.

Examples are

(1) hěn duō tóng-xué
/very many N: classmate/
'very many classmates'

(2) bù shǎo dàì-fu
/not few N: doctor/
'quite a few doctors'

(3) yī-diār dōng-xī
/a-little N: thing/
'a few things'

(4) zèn-mo duō shí-jīān
/this many N: time/
'this much time'

(5) duō-shǎo kǔn-nán
NP Substitutes with Zero Noun Head

The NP substitutes with zero noun head are easily described in terms of the NP patterns just presented. The N head may be omitted in all cases except where the NP consists of one of a number of what Chao calls specifying or quantitative determinatives immediately followed by an N, e.g., quán xiǎo 'the whole school,' or where the NP consists of a non-defective clause modifying an N which has no function in that modifying clause, an example being

xiǎo hái-zi nièn shū de wèn-tí
/small child read book modifier-particle question/
'the problem of the children's going to school'

De is added to the modifier substituting for an NP unless it already ends in de or unless it ends in an M. For example, zhōng-wén bào 'Chinese newspaper' may be represented in the appropriate context by zhōng-wén de. Where an NP substitute ending in de is used in an NP position before de, as in NP-de-N, the two succeeding de's are reduced to one. An example is

wǒ zhè lǐ ge gǎn chē de néng-lì
/I this classifier drive cart modifier-particle strength/
'the strength of my driver'

This is equivalent to *wǒ zhè lǐ ge gǎn chē de de néng-lì, wǒ zhè lǐ ge gǎn chē de being an NP substitute.
Pronouns

The pronoun substitutes are tā 'he, she, it, they (inanimate)' and tā-men 'they (animate)' Although there is no distinction in the spoken language, tā 'she' is usually written 他 rather than 他, and tā 'it, they (inanimate)' is usually written 代.

The first and second person pronouns do not, of course, substitute for NP's. They are wǒ 'I,' wǒ-men 'we,' nǐ 'you (sg.),' and nǐ-men 'you (pl.).' There is also nǐn, a polite form of nǐ. In Peiping, zán-men 'inclusive we' is also used.

It is common to find a pronoun followed by an NP in apposition to it. Examples are

(1) wǒ-men liǎng ge rén
/we two M person/
'we two'

(2) wǒ-men zhōng-guó rén
/we China person/
'we Chinese'

Proper Nouns

Proper nouns also function like NP's. Titles follow the name, as in

(1) zhāng tòng-zhī
/Chang comrade/
'Comrade Chang'
A similar pattern is found in place names like

(1) t'ai-wân shêng
/Taiwan province/
'the province of Taiwan'

(2) t'ai-zhông shì
/Taichung city/
'the city of Taichung'

The Plural Suffix men

Nouns are not inflected for number, but the plural suffix men which is regularly used in pronouns referring to a plurality of people may also be added to such nouns as hái-zi 'child,' xian-sheng 'teacher,' or dài-fu 'doctor,' but only if the noun is not modified by a Nu-M phrase or a quantitative expression like hên duô 'very many' and if the reference is to a group rather than a plurality of scattered or unrelated individuals.
Noun Phrase Substitutes with Zero Noun Head

Justification for Positing a Zero Noun Head

We cannot assume that a head noun, although not expressed, is to be understood in every case where we find a construction which follows the pattern of one or more noun modifiers. One cannot conclude that since a noun is clearly understood in some cases, a noun must be understood in all cases. Secondly, it would also be wrong to assume that there is such a simple criterion for distinguishing the places where a noun is understood from those where one is not, as the following rule: a noun is to be understood only where supplying it would give us a sentence which is grammatically acceptable. One cannot simply ask an informant if the sentence with the noun supplied means the same, in that context, as the one without the noun. For example, in the sentence

_Wǒ gōng-chǎng cān-guān guò bù-shǎo._

/I factory tour experience-particle quite-a-few./

'I have toured quite a few factories.'

_bù-shǎo gōng-chǎng_ 'quite a few factories' is meant, but an informant would not accept _Wǒ gōng-chǎng cān-guān guò bù-shǎo gōng-chǎng_. Rather, the point is whether or not there is a relation between _gōng-chǎng_ and _bù-shǎo_ which is not indicated by an IC analysis of this sentence, which would be
According to this analysis, gong-chang is only immediately related to can-guan guo bu-shao, as subject to predicate (Chao uses "predicate" for "comment"). (This subject-predicate construction is the predicate of which wǒ is the subject.) By saying that gong-chang is to be understood after bu-shao, I am suggesting the possibility only of there being an immediate relationship between bu-shao and gong-chang which is grammatically relevant. I am not suggesting that the grammar rules will have to be revised to make *wǒ gong-chang can-guan guo bu-shao gong-chang* an acceptable sentence. Discussion of the question of how the relationship between gong-chang and bu-shao can be formally included in the linguistic system is left until Chapter V.

Patterns with no Noun Heads

Many constructions which follow the pattern of noun modifiers ending in de may be found as complements after the verb shì 'be' without a following head noun. In the majority

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8 I discount the possibility of an IC analysis in which gong-chang and bu-shao would be considered discontinuous constituents of a construction, since this would be overlooking the function of gong-chang clearly expressed by its order in the sentence, namely, that it is a subject about which a comment is made.
of cases a head noun is not understood. As indicated in the previous paragraph, the reason is that there is no relation between these phrases and some understood noun, that is not already expressed in an overt way.

The majority of sentences in which there is the verb shì followed by a complement NP (but not an NP substitute) express one of two relationships which may be called "classification" and "identification." If the relationship is classification, the sentence means that the subject is one member of a class named by the complement. An example is

Wǒ-men dōu shì kuài sǐ de rén le.

/We all are soon die modifier-particle person perfect-particle./

'We are both people who are soon to die.'

If it is identification, the sentence means that the subject is identified by the complement, the complement naming a class of only one member. An example is

Zhè shì wǒ de míng-zi.

/This is I modifier-particle name./

'This is my name.'

At least two other relationships are expressed in this last example. There is a possessive relation between wǒ and míng-zi, and there is a relation of predication between zhè and what is said about zhè. Identification is the central relationship in what is said about zhè; it is the main point of the predication.
Neither classification nor identification is the point of the predication in the sentence:

Zhēi bēn shū shì wǒ de.
/This book is mine./

'This is my book.'

In both Zhēi bēn shū shì wǒ de 'This book is mine' and Zhē shì wǒ de shū 'This is my book' there is the possessive relation; but in the latter sentence the purpose of including wǒ de 'my' is to specify that the class meant is a subclass of that represented by shū 'book' alone, whereas in the former sentence the possessive relation is the main point of the predication—the sentence tells who the possessor of the subject is. This relationship is expressed by the A-shī-B-de pattern in the former sentence. There is no need to consider a noun understood after de to account for this relationship. The B-yŏu-A pattern (yŏu 'have') expresses the same possessive relationship in

Wǒ yŏu shū.
/I have book./
'I have a book.'

The difference between A-shī-B-de and B-yŏu-A is to be explained as follows. They both express a relationship of predication but what is predicated of what is different. A-shī-B-de means that "B possesses A" is predicated of A, whereas B-yŏu-A means that "B possesses A" is predicated
A similar analysis applies to sentences in which the unit preceding *de* is a place word, such as

*Nèi ge xiān-sheng hé nèi ge xué-sheng dōu shì běi-jīng dà-xué de ma?*

/That M teacher and that M student all are Peking University modifier-particle question-particle?/

'Are that teacher and that student both from Peking University?'

In this case we may want to say that the A-shi-B-de pattern is expressing, besides predication, a relationship which is different from the "possessive" relationship and which we could call "R." There is no problem in the fact that běi-jīng dà-xué is in this R relation with a coordinate subject; the relationship does not need to be posited of each of the parts of the coordinate subject individually— it can be posited of the subject as a whole.¹⁰ This analysis of the

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⁹ I disagree with Chao who says (op. cit., pp. 395-96) that a noun is understood in Shū shì wǒ de 'The book is mine.' He gives as evidence the similarity in meaning between this sentence and Zhè shì wǒ de shū 'This is my book.' It is not clear in what sense Chao means to say that a noun is understood but it would appear that he means only that it is included in the meaning of the sentence, not that it is included somehow in the linguistic structure of the sentence.

¹⁰ It is hard to understand why transformationalists insist that coordination within part of a sentence reflects coordination of sentences in the deep structure, i.e., that only coordination of "S" is allowed in the phrase structure rules. Chao points out that the truth value of "A and B C"
sentence is confirmed by the fact that, if a noun were to be "understood," we could not supply the coordinate xiān-sheng hé xué-sheng, since this would make no sense unless something like English respectively could be added. I know of no way of providing for this in a simple way in Chinese. The only alternative would be to supply a general noun like rén 'people' which does not occur in the linguistic context. Positing some such general noun as "understood" should be avoided if at all possible, since it involves several difficulties, one of which is knowing which of several possible nouns is the one meant to be understood. Fortunately we do not need to consider the possibility of an understood noun since all grammatical relationships in this sentence are overtly expressed.

The relationship between a single word modifier and the noun head, as in è-wén huà-bào 'Russian pictorial,' is presumably still a different one, which we may call "S."

One does not need to posit an understood noun in the sentence:

Nèi běn huà-bào yě shì è-wén de ma?

/That M pictorial also is Russian modifier-particle question-particle?/

'Is that pictorial also in Russian?'

may be different from that of "A C and B C" (op. cit., pp. 140-41; see also my "Problems in the Treatment of Dōu 'all' in a Transformational Grammar of Mandarin Chinese," Tunghai Journal, VII [June, 1965], 97-98).
The A-shi-B-de pattern here expresses the two relationships, predication and S, but not classification as well. In contrast, this next sentence does have the classification relation as the central one of the predicate:

Na shi e-wen hua-bao.

/That is Russian pictorial./

'That is a Russian pictorial.'

That classification is not expressed in the previous sentence is confirmed by a consideration of the function of ye 'also' in that sentence. The ye as used here means that what is predicated of nei ben hua-bao has already been predicated of a previous subject. If the noun hua-bao were to be understood as part of this predicate, it would imply that the previous subject was also a pictorial, but the piece of conversation from which this example was taken contradicts this--the subject of the previous sentence refers to a za-zhi 'magazine,' not a hua-bao 'pictorial.'

Similar arguments point to the conclusion that no noun is to be understood in most sentences of the pattern

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11 The conversation is: (A) Zhei ben za-zhi shi zhong-wen de ma? (B) Bu shi zhong-wen de, shi e-wen de. . . . (A) Nei ben hua-bao ye shi e-wen de ma? /(A) This M magazine is Chinese modifier-particle question-particle? (B) Not is Chinese modifier-particle, is Russian modifier-particle. . . . (A) That M pictorial also is Russian modifier-particle question-particle? ' (A) Is this magazine in Chinese? (B) It's not in Chinese; it's in Russian. . . . (A) Is that pictorial also in Russian? ' (Modern Chinese Reader, p. 156).
A-shi-Adjective-de. A sentence of this type is

Shù shang dōu shì bái de.

/Tree on all is white modifier-particle./

'The trees were all covered in white.'

That no relation between bái and an understood noun is implied in this sentence is confirmed by the fact that one would not know what noun was to be understood. The subject of this sentence is shù shang, a place phrase. It is not an NP or an NP substitute and therefore does not contain a head noun which one might consider understood after bái de. It is hard to imagine what other noun would be suitable to supply—but, of course, this is not necessary. Sentences of this type may also have coordinate subjects, in which case again it would be impossible to know what noun to posit as understood if it were necessary to do so. An example is

Huà-bāo, zá-zhì dōu shì xīn de.

/Pictorial magazine both are new modifier-particle./

'The pictorials and the magazines are all new.'

Nor does the context supply any suitable noun as understood in sentences where the subject noun is certainly not the suitable noun, such as

Fā-yīn shì fēi-cháng zhòng-yào de.

/Pronunciation is extremely important modifier-particle./

'Pronunciation is very important.'

But again this is no problem since there is no relationship of classification expressed in these sentences. The
difference between the following two sentences lies in the fact that the second expresses the classification relationship whereas the first does not:

(1) Zhèi zhāng zhī shì gān-jìng de bù shì?
   /This sheet paper is clean modifier-particle not is?/
   'Is this sheet of paper clean?'
(2) Zhè shì gān-jìng de zhī bù shì?
   /This is clean modifier-particle paper not is?/
   'Is this clean paper?'

However I am so far unable to explain what the difference in meaning is between the two patterns illustrated by these sentences:

(1) Zhèi zhāng zhī shì gān-jìng de bù shì?
   /This sheet paper is clean modifier-particle not is?/
   (2) Zhèi zhāng zhī gān-jìng bù gān-jìng?
   /This sheet paper clean not clean?/

Both mean 'Is this sheet of paper clean?'

In another type of sentence that follows the pattern A-shì-B-de there is a defective clause in the B slot. In sentences of this type there is again, more often than not, no reason for positing an understood noun. Only in the relatively few cases like the following example is the sentence a matter of classification or identification and a

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12 The N shì V de construction is described as "slightly less blunt" than the N-V construction in John DeFrancis, Beginning Chinese (2d ed. rev.; New Haven, 1963), p. 219.
noun understood.

(A) Zǒu dào tái shāng qu de nèi ge tóng-zhī shì shéi?
Shì zuò bào-gào de ma? (B) Bú shì, zuò bào-gào de tóng-
zhī hái méi you lái ne.

/(A) Walk to platform on go modifier-particle that M
comrade is who? Is do announcement modifier-particle
question-particle? (B) Not is, do announcement modifier-
particle comrade still not has come continuation-
particle./

'(A) Who is the comrade walking onto the platform? Is
it the one that is going to make the announcements?
(B) No, the comrade who is going to make the announce-
ments has not yet come.'

Tóng-zhī 'comrade' is understood in the second question
spoken by (A). The shéi 'who' of the first question confirms
the analysis that the second expresses the relationship of
identification.

If the first question had been, however,

Zǒu dào tái shāng qu de nèi ge tóng-zhī shì zuò shén-mo
de?

/Walk to platform on go modifier-particle that M comrade
is do what modifier-particle?/

'What does the comrade who is walking onto the platform
do?'

then the second question would no longer be said to have an
understood noun. It would be the type of sentence in which
the "situational de," as Chao calls it, is used.\textsuperscript{13} Chao gives an example of how a sentence of this type is changed completely by the supplying of a noun after the de. \textit{Tā shì gēn nǐ kāi-wán-xiào de} /He is with you joke modifier-particle/ means 'He was just joking with you,' but \textit{Tā shì gēn nǐ kāi-wán-xiào de rén} /He is with you joke modifier-particle person/ means 'He is the man who was joking with you.'

Chao distinguishes these sentences with "situational de" from others in which de is used for "specification" and in which again no noun is understood.\textsuperscript{14} An example is

\textit{Tā shì cóng rì-běn lái de.} \\
/He is from Japan come modifier-particle./

Chao translates this as 'It was from Japan that he came.'

A sentence like the following is ambiguous, the meaning corresponding either to the "situational de" type of sentence or to the "de for specification" type, that is, every part of the predicate is new information, or else only the place phrase \textit{zài běi-jīng dà-xué} 'at Peking University' is new, the idea of his having studied Chinese already being understood.

\textit{Tā shì zài běi-jīng dà-xué xué zhōng-wén de.} \\
/He is at Peking university study Chinese modifier-particle./

Possible translations for the two meanings, respectively,

\textsuperscript{13} Op. cit., p. 397. \textsuperscript{14} Ibid., p. 398.
might be 'He studied Chinese at Peking University' and 'It was at Peking University that he studied Chinese.' In the latter case, this sentence could be the answer to the question:

Tā shì zài nǎ-lǐ xué zhōng-wén de?
/He is at where study Chinese modifier-particle?/
'Where did he study Chinese?'

In such a case we have further confirmation that no noun is understood in the fact that zhōng-wén 'Chinese' could be put after the de instead of before the de with no change of meaning:

Tā shì zài nǎ-lǐ xué de zhōng-wén? Tā shì zài běi-jīng dà-xué xué de zhōng-wén.

It is evidently possible in all sentences of the "de for specification" type that have an object immediately preceding the de to put the object after the de instead.

Many sentences of the "de for specification" type have the goal expressed as the subject, rather than as an object within the clause of the predicate. The following example includes the agent in the predicate. The emphasis is on this agent as the new information being expressed.

Shàng-biāo de zì shì māo zhǔ-xiē xiě de.
/Above modifier-particle character are Mao chairman write modifier-particle./
'The words on top were written by Chairman Mao' (or 'It was Chairman Mao who wrote the words on top.')
The fact that the words were written is taken for granted—it is who wrote them that is the point. Just as there is no reason to posit an understood shū in Zhèi běn shū shì wǒ de (see above, p. 36), so there is no reason to posit an understood zǐ after de in this sentence. The predicate does not express the "classification" relation.

In sentences, then, that have predicates composed of shū plus what appears to be a noun modifier ending in de, no noun is to be considered understood unless the predication is a matter of classification or identification. An attempt to specify in what situations the noun head may be left out in such sentences is made below.

I first mention a few other uses of a noun modifier type of construction where a noun head is not to be understood.

Chao points out that regularly used phrases like zuò fàn de /make rice modifier-particle/, which means 'a cook,' cannot have a noun like rén 'person' added to them without a change in meaning—in this case, a change in meaning to 'one who prepares a meal.' Evidently zuō fàn de is an idiom and so the meaning of the whole phrase would be represented directly in the lexicon. If its meaning were to be derived from its parts, it would be incomplete without the addition of an understood noun.

15 Ibid., p. 396.
Just as zhè 'this' and nà 'that' are used alone as pronouns to refer to persons or things that the speaker does not wish to or is unable to categorize by the use of a specific noun, so zhèi xiē 'these,' nèi xiē 'those,' and nà xiē 'which (plural)' can be used as pronouns to indicate a plurality of members of an unspecified class. An example is

(A) Nèi xiē shì shén-mo? (B) Nà xiē? Zhèi xiē shì zá-zhì.

/(A) That M is what? (B) Which M? This M is magazine./

'(A) What are those? (B) Which? These are magazines.'

There is no point in arguing for an understood noun of general reference such as dōng-xī 'thing' in such sentences.

There is, however, one type of sentence in which zhè 'this' and nà 'that' are used alone as pronouns, where it is obvious that the speaker does know what noun is the appropriate name for the class that the object or objects under consideration belong to. Many examples have already been given. They are sentences with the verb shì 'be' expressing a classification or an identification relationship.

Examples are

(1) Zhè shì wǒ de shū.

/This is I modifier-particle book./

'This is my book.'

(2) Zhè shì zhòng-wén shū.

/This is Chinese book./
'This is a Chinese book.'

(3) Zhè shì shū.

/This is book./

'This is a book.'

Are we to say that běn shū /M book/ is to be understood after zhè 'this' in these sentences? To do so may seem reasonable in the first two examples, but in the last it would make a tautology. For this reason I would say that no M-N sequence is understood in these sentences.

Consistency of analysis would indicate a similar treatment of sentences with a defective clause followed by de used as subject of a predicate consisting of a verb, shì 'be' or yǒu 'have,' followed by an NP. Examples are

(1) Nǐ kàn de shì shén-mo xi?

/You see modifier-particle is what play?/

'What was the play you saw?'

(2) Nèi tiān cān-jiā lǚ-xíng de yǒu wǔ-shí duō wàn rén.

/That day take-part-in parade modifier-particle have fifty more ten-thousand people./

'There were more than five hundred thousand people participating in the parade that day.'

Xi่ 'play' is not to be understood after nǐ kàn de in the first example, nor rén 'people' after nèi tiān cān-jiā lǚ-xíng de in the second. Confirming evidence for this treatment is found in cases where the linguistic context does not contain an appropriate noun to be understood after the
clause-de phrase. An example is

Zài zhèr xué-xí de yǒu zhōng-guó gè mín-zú de qīng-nián,
yě yǒu wǒ-men wài-guó liú-xué-shēng.

'At here study modifier-particle have China every race
modifier-particle youth, also have we foreign student-
who-studies-abroad./

'Those studying here include youth of every race in
China as well as us foreign students.'

Just as there is no justification for supplying a general
noun like dōng-xī 'things' in Nèi xīē shén-mo? 'What are
those?' so there is no need to argue for an understood rén
'people' or xué-shēng 'students' in this example.

Patterns with Zero Noun Head

A head noun is omitted, or is to be understood, under
the following conditions.

One condition that applies in all instances is that
the understood noun should have already appeared overtly in
the same sentence or the previous one, and no other noun
should appear between the overt expression of this noun and
the zero expression of it unless no ambiguity results. The
measure often keeps the reference clear. For example,
although the noun pénɡ-yǒu 'friend' appears between the two
references to 'a pencil' in the following example, the
measure zhǐ, which is never used with pénɡ-yǒu, assures no
ambiguity of reference:
I went to buy a couple of pencils; one is for my friend to use and the other is for myself to use.'

A second reference to the same person or thing does not ordinarily omit the noun unless the first reference to it also has left, or could have left, the noun unexpressed. This omission of the noun in the second reference is not obligatory. An example is

(A) Liăng běn ˙ ņį dōu kànn le ma? (B) Dùi-le, liăng běn ˙ dōu kànn le.

/(A) Two ˙ ņį both read past-particle question-particle? (B) Right, two ˙ ņį both read past-particle./

'(A) Have you read both volumes? (B) Yes, I've read them both.'

Why the noun was left out in the first reference will be explained below.

A noun may be left unexpressed in an answer to a question in which there is a question word in the modifier of the noun (the same noun as the one that is left unexpressed in the answer). Examples are

(1) (A) Nǐ-men xué le ji kè yǔ-fǎ le? (B) Xué le sān kè ˙ le.
/(A) You study past-particle how-many M:lesson grammar perfect-particle? (B) Study past-particle three M:lesson Ø perfect-particle./

'(A) How many lessons of grammar have you studied? (B) Three lessons.'

(2) (A) Nǐ shì jī nián-jì de xué-shēng? (B) Wǒ shì yī nián-jì de Ø.

/(A) You are which grade modifier-particle student? (B) I am one grade modifier-particle Ø./

'(A) Which grade are you a student of? (B) I'm in first grade.'

(3) (A) Tā-men hū duō-shǎo sū-lián gēr? (B) Tā-men hū hěn duō Ø.

/(A) They know how-many Russian songs? (B) They know very many Ø./

'(A) How many Russian songs do they know? (B) They know a lot.'

(4) (A) Nǐ yào chuān nǎ yī jiàn máo-yī? (B) Wǒ yào chuān wǒ nèi yī jiàn hēi de Ø.

/(A) You want wear which one M sweater? (B) I want wear I that one M black modifier-particle Ø./

'(A) Which sweater do you want to wear? (B) I want to wear that black one of mine.'

Such examples as these perhaps provide the most convincing evidence that an understood noun is to be reckoned with, for an answer with the noun included adds nothing to the meaning
intended by the answers where the noun is omitted. It should be remembered that, although I may seem to be arguing for recognizing a second instance (in some sense) of the noun, along with the relationship that this second noun holds with the modifying phrase, I am not committing myself at this point as to whether this is the case or whether all that needs to be recognized is an unexpressed relationship between the first instance of the noun and the modifying phrase in the second part—in these examples this would be a relationship across a sentence boundary.

A noun may be left unexpressed after a modifier ending in de (i.e., a modifier not of the D-M or Nu-M type) only if the modifier has a contrastive function—i.e., there is an explicit or implied reference to two subgroups of the class named by the noun alone, the modifiers distinguishing the subgroups from each other. The noun may be expressed overtly in the reference to the first of these subgroups, as in

(A) Shì sū-lián diàn-yìng ma? (B) Bú shì, shì zhōng-guó de ø.

/(A) Is Russian movie question-particle? (B) Not is, is China modifier-particle ø./

'(A) Is it a Russian movie? (B) No, it's a Chinese one.'

Or the noun may be overtly expressed in a reference to the class as a whole, or to an unspecified member of the class as in
Wo jin-tian xiang qu mai yi jian chen-shan; nǐ kàn, mai chang xiu de 0 hao hai-shi mai duan xiu de 0 hao?

/I today would-like-to go buy one M shirt; you see, buy long sleeve modifier-particle 0 good or buy short sleeve modifier-particle 0 good?/

'I'd like to go and buy a shirt today. What do you think--would it be better to buy a long-sleeved one or a short-sleeved one?'

Sometimes one or both of the subgroups has only one member.

The second sentence of the example just cited would be interpreted in this way if the whole example had been as follows:

Nǐ kàn wǒ yīng-gāi mǎi nà yī jiàn; mǎi chang xiu de 0 hao hai-shi mǎi duan xiu de 0 hao?

/You see I ought-to buy which one M; buy long sleeve modifier-particle 0 good or buy short sleeve modifier-particle 0 good?/

'Which one do you think I ought to buy? Would it be better to buy the long-sleeved one or the short-sleeved one?'

A sentence of essentially the same meaning adds a D-M phrase either before or after the de phrase:

(1) Mǎi chang xīu de zhèi yī jiàn 0 hǎo hái-shì mǎi duǎn xīu de nèi yī jiàn 0 hǎo?

/Buy long sleeve modifier-particle this one M 0 good or buy short sleeve modifier-particle that one M 0 good?/
Both of these sentences mean 'Would it be better to buy this long-sleeved one or that short-sleeved one?' I am not prepared to argue that these D-M phrases are understood when not overtly expressed.

Modifiers of the D-M or Nu-M type with zero noun head are regularly found in a similar situation, namely, when they point to a part of a whole that has been specified. Examples are

(1) Jīn-tiān de liàn-xí yǒu bā ge jù-zì, nǐ zuò le jǐ ge 0 le?
/Today modifier-particle exercise have eight M sentence, you do past-particle how-many M 0 perfect-particle?/
'Today's exercise has eight sentences; how many of them did you do?'

(2) Nèi-xiē jiān máo-yī dōu hěn hǎo-kàn; wǒ yě bù zhī-dào yīng-gāi mǎi nǎ yí jiàn 0.
/Those M sweater all very beautiful; I also not know ought-to buy which one M 0./
'Those sweaters are all beautiful; I don't know which one I ought to buy.'
A Nu-M substitute, bù-shǎo 'quite a few,' is used in this way in an example previously mentioned:

Wǒ gōng-chǎng cān-guǎn guò bù-shǎo ø.

/I factory tour experience-particle quite-a-few ø./

'I have toured quite a few factories.'

Gōng-chǎng as a subject refers to the whole class, bù-shǎo to a part of that class.

In some cases, a descriptive phrase is added to the D-M or Nu-M modifier to help specify the part of the whole that is being referred to. Examples are zhèi běn zhōng-wén de 'this Chinese one' and nèi běn è-wén de 'that Russian one' in the following conversation:

(A) Zhèi liǎng běn xiǎo-shùōr shì shéi de?  (B) Zhèi běn zhōng-wén de ø shì zhāng tóng-zhī de, nèi běn è-wén de ø shì wǒ de.

/(A) This two M novel are who modifier-particle?  (B) This M Chinese modifier-particle ø is Chang comrade modifier-particle, that M Russian modifier-particle ø is I modifier-particle.

'(A) Whose are these two novels?  (B) The Chinese one is Comrade Chang's; the Russian one is mine.'

The next two sentences of this conversation have already been cited:

(A) Liǎng běn ø nǐ dōu kàn le ma?  (B) Dùi-le, liǎng běn ø dōu kàn le.

 /(A) Two M ø you both read past-particle question-
particle? (B) Right, two M φ both read past-particle./

'(A) Have you read both of them? (B) Yes, I have.'

The modifier with zero head, liǎng běn, specifies the whole versus the parts that were previously specified.

After a measure like 个, which is used with so many different nouns, there is a greater possibility that omission of the noun will result in ambiguity and so the noun is often overtly expressed the second time. An example is


/This M factory very large, room very many. Each M room both bright and clean./

'This factory is very large and has many rooms. Each room is both bright and clean.'

If the more specific measure for rooms, jiān, had been used, chē-jìān could be left out: měi jiān φ yǒu liàng yǒu gān-jìng.

A different case from the above is one where the noun head is omitted in the specification of the total number of members in the previously referred to group. An example is

Wǒ de è-wén huà-bào bù duō, zhǐ yǒu sān běn φ.

/I modifier-particle Russian pictorial not many, only have three M φ./

'I don't have many Russian pictorials--only three.'

A number of other cases of zero noun head occur where the previous, overt, expression of the noun is not in
reference to the whole group or to a contrasting subgroup, but to a type of object, without any indication of number or definite reference. Since a contrast between two subgroups is not at issue, modifiers which are not D-M or Nu-M phrases or Nu-M substitutes are not ordinarily found with zero noun heads in these cases. Examples are

(1) (A) Nǐ yǒu méi you zǐ-diǎn? (B) Méi you, wǒ yí-dìng yào mǎi yì běn ∅.
   /(A) You have not have dictionary? (B) Not have, I certainly want buy one M ∅./
   ' (A) Do you have a dictionary? (B) No, but I certainly am going to buy one.'

(2) (A) Nǐ hào zhōng-guó gēr ma? (B) Hào, wǒ zhī hào liǎng ge ∅.
   /(A) You know China song question-particle? (B) Know, I only know two M ∅./
   ' (A) Do you know any Chinese songs? (B) Yes, but I just know three.'

In the last example, not only the noun gēr 'song' but also its single word modifier zhōng-guó 'China' is understood after liǎng ge. Probably all the above rules should be revised to allow for this possibility, except where the modifier itself is the point of contrast between two subgroups of a class.

At this point, it must be admitted that none of the situations described above for omitting a head noun seems to
apply to the example given on page 42:

Zǒu dào tái shàng qu de nèi ge tóng-zhī shì shéi? Shì zùò bào-gào de ō ma?
/Walk to platform on go modifier-particle that M comrade is who? Is do announcement modifier-particle ō question-particle?/

'Who is the comrade walking onto the platform? Is he the one that makes the announcements?'

However, if we were to consider that shéi 'who' is equivalent to nèi yǐ ge tóng-zhī /which one M comrade/, we might explain that tóng-zhī is omitted after shì zùò bào-gào de because this is the answer to a question (although itself in question form).

There are some special restrictions on the omission of head nouns that remain to be mentioned. (a) Substitutes for Nu-M phrases, such as hěn duō 'very many' or duō-shǎo 'how many', do not appear as subjects without a head noun overtly expressed after them. (b) Certain nouns are rarely omitted after the measure, e.g., zhōng-tōu 'hour.' (c) A noun modified by shén-mo 'what' is never omitted.

This concludes the description of the conditions under which a head noun is either obligatorily or optionally omitted. There are two reasons why I argue for the noun's being "understood" in the sentence. First, it has a relationship with the modifiers which is not expressed by the IC structure of the sentence. Secondly, the cases where a
noun head is not expressed complement those where a noun head is expressed; the overlapping cases, where omission of the noun is optional, are not evidence of contrastive patterns (at all structural levels) because the meaning of the sentences in these cases is the same with or without the noun head. Discussion of the implications of these facts is left to Chapter V.
CHAPTER III

SECOND REFERENCES TO PERSONS

This chapter presents observations on the ways of expressing a reference to a person that has already been referred to in the same discourse. Such a reference I call a "second reference" although it may be a third or fourth, etc. It is important to make clear that I am talking only about reference to the same member or same subset of members of a class, not reference to the same type of person or thing, i.e., not reference to a member or subset of members of the same class as that already referred to. Ordinary use of the English words same or identical often obscures this distinction.

One set of rules cannot take care of all cases of second reference to a person. The system for referring to the speaker or the listener or to groups of people including them differs from that for referring to a person or persons distinct from the speaker or the listener. These systems both differ from that for referring to objects other than persons.

The use of pronouns referring to persons is presented first and then the use of zero anaphora in references to persons. The reader should understand that the rules which
appear before the discussion of zero anaphora apply as stated except in those respects in which a revision is required by later statements about zero anaphora. For example, a general statement about the conditions under which wǒ 'I' is used may be implicitly revised by a later statement that under certain specific conditions, which fall within the more general conditions already described, zero is used rather than wǒ.

Pronouns

First and Second Persons

Wǒ is used in reference to the speaker alone. Wǒ-men is used in reference to the speaker and one or more other people. This may include the listener, except in those dialects where a special form, zán-men, is used in reference to the speaker and one or more other people including the listener. There are "humble" forms used to refer to the speaker: xiōng-dì, bi-rén, and bēn rén. Nǐ refers to one listener; nǐ-men refers to more than one listener with or without one or more other people, or to the one listener and one or more other people. Nín is an honorific form for nǐ; it is not used in many Mandarin dialects, but it is used in Peiping. Another way of referring to a listener, which shows deference to the listener's status, is to use his or her title instead of nǐ or nín. Sometimes the surname of the listener may be included with the title. For example, a
student usually refers to his teacher, when talking to him, as xian-sheng or lão-shī, or, with the appropriate surname, as, e.g., luó xian-sheng.

This system differs in two special ways from other systems of reference. First, in the course of a dialogue, wǒ or nǐ will refer to two different people depending on who is doing the talking at the moment. This does not give rise to any ambiguity. (Quotation of someone else's speech may be direct or indirect. If indirect, the pronouns are adjusted to the point of view of the actual speaker rather than the speaker being quoted.) Secondly, although wǒ and nǐ and their plural forms with men are usually called pronouns, actually there are no substitutes in this system, apart from zero and the reflexive zǐ-jī (see below); i.e., a second reference to the same person or persons is expressed in the same way as the first (as long as it is the same person speaking).

The reflexive zǐ-jī as a substitute pronoun is found as an object, direct or indirect, and refers to the preceding subject of the same verb of which it is object (this includes a subject which is at the same time object of a pivotal verb, such as qǐng 'to ask someone to do something'). This use of zǐ-jī is obligatory. It is optional whether or not the pronoun used as subject is repeated before the zǐ-jī. An example is

Nǐ bù yào guài (nǐ) zǐ-jī.
You not want blame (you) self./
'Don't blame yourself.'

An optional use of the reflexive ず-じ is as the subject of an object clause, as in

Wǒ bù xiǎo-de 五/ず-じ wèi shén-mo zhè yàng zuò.
/I not know I/self why this way do./
'I don't know why I do this.'

I have not tried to describe any regularities there may be in the use of the plural forms 五-men and 五-men to assist the listener in knowing who all is meant. Appositional NP's often make it clear who is meant. Examples are

(1) 五-men wài-guó liú-xué-shēng
/we foreign-country student-studying-abroad/

I do not know why this way do.
'I don't know why I do this.'

1 These uses of ず-じ are to be distinguished from two other uses. One is the use of ず-じ immediately following an NP or pronoun (or zero) to point up the contrast between this person and some other person, as in: (A) Xiǎn-shēng gēi nǐ-men jiáng ɡú-shì de shí-hour, tā shuō じ-biàn? (B) Shuō liǎng biàn. Yáo-shī bu zè yàngr, 五-men ǒu-shí-hour jiù ɡèn bu dōnɡ. (A) Yáo-shī ràng nǐ ɡu-ji shuí ge ɡú-shì, ɡu-ye-chu-lai shuí-bu-chu-lai ne? /A Teacher to you tell story modifier-particle time, he say how-many time? (B) Say two time. If not this way, we sometimes then hear not understand. (A) If let you self say this M story, can-say cannot-say question-particle?/ (A) When the teacher tells you a story, how many times does he say it? (B) Twice. If not, then we wouldn't understand it sometimes. (A) If he got to you say the story, would you be able to do it? The other use of ず-じ is as an adverb before a verb to mean 'alone, without the help of anyone else.' Other words may come between the subject and this ず-じ; it is not necessarily immediately preceded by an NP or NP substitute. An example is Wǒ-men ɡu-jiǎo ず-じ zuò le. /We had-best self do perfect-particle. /'We had best do it ourselves.'
Third Person Pronouns

A second reference to persons other than the speaker or listener may be made by an NP, a pronoun, or zero. The previous chapter described the few cases in which a second reference to the same person or thing can be expressed by an NP substitute with zero noun head.

The conditions under which a second reference to a person or persons other than the speaker or listener is made by a pronoun rather than an NP are described in this section.

The pronouns used are tā 'he, she' and tā-men 'they'.

Types of NP's.—NP's in Chinese can be one of three kinds which I call "definite," "indefinite," and "unspecified." Definite NP's refer to persons or things which have been or are pointed out so that the speaker and listener know which member or members of a class are being referred to. An example of a definite NP is

nèi běn shū

/that M book/

'that book'

Definite NP's may also specify the number of members of that class being referred to, as in

nèi liǎng běn shū
Pronouns are also definite in reference. The instances of zero considered in this chapter are also definite in reference.

Indefinite NP's specify the number of members of a class referred to, either exactly or approximately, but do not point out which are the members of that class that are being referred to. Examples are

(1) yī běn shū
   /one M book/
   'one book'

(2) hěn duō shū
   /very many book/
   'very many books'

Unspecified NP's refer to a class without specifying how many members are referred to or which are the members referred to. Most object NP's that include no modifiers except adjectives or single word modifiers are unspecified.

Exact translation into English is impossible since English must specify something about the number of a noun if it is a countable noun, and for either countable or uncountable nouns, must specify whether or not it is definite. The only exception in English is a noun used as a modifier before another noun, as hand in handshake, or as a modifier in a verb, as baby in babysit. To get the idea of the Chinese wò shǒu, for example, one should translate as "to handshake"
rather than as "to shake hands."

Conditions for use of tā and tā-men.--Pronouns refer to any person or persons previously referred to by an unspecified NP, a definite NP, or an indefinite NP. First references made by unspecified NP's are not as common as those made by definite or indefinite NP's, but one example, with the unspecified NP péng-you 'friends' is

/I each day all attend class, not have time see friend. Today Sunday, would-like-to go they home have-a-visit./
'I go to class every day, so don't have any time to see friends. Today is Sunday and so I'd like to go to their homes to see them.'

An example with the indefinite NP yī ge zhōng-guó péng-you 'a Chinese friend' in the first reference is

Wǒ yǒu yī ge zhōng-guó péng-you jiào zhāng-wèi, tā shì sān nián-jí de xué-shèng.
/I have one M China friend called Chang-wei, he is three year modifier-particle student./
'I have a Chinese friend called Chang Wei; he's a third year student.'

An example with the definite NP wǒ-de péng-you 'my friend' in the first reference is

Wǒ jīn-qu de shí-hour, wǒ de péng-you zhèng táng zhe kàn huà-bào ne. Tā kàn-jian le wǒ hěn gāo-xíng.
When I entered, my friend was just lying down looking at a pictorial. When he saw me, he was very happy.

Tā or tā-men refer to the nearest preceding NP or pronoun unless the preceding NP or pronoun (a) refers to the speaker or the listener, (b) is the pronoun dà-jīā 'everybody' or a similar indefinite pronoun, or (c) is the wrong number (i.e., plural when the pronoun is tā or singular when the pronoun is tā-men). Other kinds of NP's or pronouns which do not have the same referent as a following pronoun are described in the following paragraphs.

Certain nouns, particularly proper nouns like gòng-chān-dāng 'the Communist Party' or bā-lù-jūn 'Eighth Route Army,' although referring to a group of persons, are evidently thought of more as single units, so that we do not ordinarily find tā-men used as a substitute for them; the noun is repeated in a second reference.

A pronoun does not refer back to an NP complement after shì 'be.' A pronoun in a succeeding sentence will refer to the subject of the shì. This comes out clearly in cases where the shì sentence is negated. An example is

Zhāng xìan-shēng bù shì wǒ-men de zhōng-wén lǎo-shī.
Tā jiāo wǒ-men lǐ-shí.
Chang Mr. not is we modifier-particle Chinese teacher. He teach us history./
'Mr. Chang isn't our Chinese teacher. He teaches us History.'

A pronoun is not used as a substitute for one part of a coordinate NP. Thus ta could not be used instead of the second xian-sheng 'teacher' in the following example:

Zuo-tian wo gen xian-sheng he yi ge tong-xue zhaol le yi zhang xiang-piar. Jin-tian yao dai dao xian-sheng nar qu gai ta kan.

'Yesterday I with teacher and several M classmate take past-particle several M photograph. Today want take to teacher there go give him look-at./

'Yesterday I took some pictures with the teacher and several classmates. Today I want to take them over to the teacher's to show him.'

A coordinate NP may be referred to by a substitute only if the whole NP is referred to again; the plural ta-men would be the appropriate pronoun. If the two parts of the NP are both plural, a substituting ta-men still can only be interpreted as referring to the whole; it could not possibly refer only to one, e.g., the second one, of the plural parts.

A similar situation in which a pronoun is not ordinarily used occurs when the reference is to an individual who may have been referred to previously alone but who is referred to as part of a group in a later reference by some
plural expression like  wǒ-men or tā-men. An example follows
in which tā would not be substituted for the second occur-
rence of zhāng tóng-zhī:

(A) Nǐ-men xué-xí de zěn-mo-yàng? (B) Wǒ xué-xí de bú
tài hǎo, zhāng tóng-zhī xué-xí de hěn hǎo. (A) Nǐ-men
xiě hàn zì ma? (B) Xiě hàn zì. Wǒ-men dōu xiě de hěn
màn. (A) Zhāng tóng-zhī yě xiě de hěn màn ma?

/(A) You study complement-particle how? (B) I study
complement-particle not too good, Chang comrade study
complement-particle very good. (A) You write Chinese
characters question-particle? (B) Write Chinese
characters. We all write complement-particle very slow.
(A) Chang comrade also write complement-particle very
slow question-particle?/

'(A) How are you doing in your studies? (B) I'm not
doing too well; Comrade Chang is doing very well.
(A) Do you write Chinese characters? (B) Yes, but we
all write very slowly. (A) Does Comrade Chang also
write very slowly?'

A counter-example, in which there is a wǒ-men between two
occurrences of tā and in which the wo-men includes tā in its
reference, is the following:

Yǒu yī cí wǒ bìng le, zài yī-yuàn lǐ zhù le sàn tiān,
tā měi tiān dōu lái kān wǒ. Suí-rán wǒ-men zhī rèn-shí
le jī ge yuè, tā yǐ-jíng chéng le wǒ de hǎo pén-gyou le.

/Have one time I get-sick past-particle, at hospital in
live past-particle three days, he every day all come see me. Although we only be-acquainted past-particle several M month, he already become past-particle I modifier-particle good friend perfect-particle./

'Once I got sick and was in the hospital for three days. He came every day to see me. Although we have only known each other for several months, he already has become my good friend.'

Ta or tā-men used as object or modifier of an object of a verb do not refer to the subject of that verb unless followed by zi-jī. Zi-jī, of course, may be used alone in such places. Examples are

(1) Tā wèn le tā jǐ ge wèn-tí.
   /He ask past-particle him several M question./
   'He asked him several questions.'

(2) Tā wèn le (ta) zi-jī jǐ ge wèn-tí.
   /He ask past-particle (him) self several M question./
   'He asked himself several questions.'

An NP referring to a person or persons to whom a subject is compared is equivalent in function to a subject, so that a pronoun object would not refer to it either. An example is

Wǒ yě gēn zhōng-guó rén-mín yǐ-yàng de jīng-ài ta-men.
   /I also with China people the-same modifier-particle

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2 The object tā in such a sentence is stressed (Chao, op.cit., p. 849).
respect them./
'I respect them just as the Chinese people do.'

Tā-men could not possibly be referring to zhōng-guó rén-mín 'the Chinese people.' Tā or tā-men as subject of an object clause, or as modifier of the subject of an object clause, may refer—but not necessarily—to the subject of the main verb, whether or not followed by zǐ-jī. Examples are

1) Tā hái bù zhī-dào tā (zǐ-jī) méi yǒu jī-gé.
   /He still not know he (self) not have pass./
   'He still doesn't know that he didn't pass.'

2) Xiān-shēng hái méi gào-su tā tā méi yǒu jī-gé.
   /Teacher still not tell him he not have pass./
   'The teacher still hasn't told him that he didn't pass.'

Tā and tā-men are not usually used to refer to the nearest preceding NP if that NP is in turn preceded by the identical pronoun in a reference to another person or other persons. A pronoun, if used in such a situation, would refer to the same person as the preceding, identical, pronoun. Thus tā is not used instead of the second dà-chūn 'Ta Chun' in the following example:

Tā de ài-rén dà-chūn yě zài bā-lù-jūn de dūi-wú lí.
   /She modifier-particle lover Ta-Chun also at Eighth-Route-Army modifier-particle troop in. Ta-Chun at mountain in find past-particle Hsi-Er./
   'Her lover, Ta Chun, was also in the troops of the Eighth
Route Army. Ta Chun found Hsi Er in the mountains.'
An example of a second tā with the same referent as a pre­ceding tā, although an NP intervenes, is

Tā gěi gāo xiān-sheng dà diàn-huà shuō ta jīn-tian
wǎn-shang yǒu gōng-fu, ké-yì dào gāo jīa chī wǎn-fàn.
/He to Kao Mr. strike telephone say he today evening has
free-time, can to Kao home eat supper. /

'He telephoned Mr. Kao to say that he was free tonight
and could go to their home for supper. '3

The next tā in this narrative refers to a different person
but the reference is clear since the person referred to by a
pronoun in the example above is referred to by an NP before
the first NP reference to which the later tā refers. The tā
in the example above refers to Wǎn jiào-shòu 'Professor Wan.'

The next sentence is

Wǎn jiào-shòu gěi gāo xiān-sheng dà le diàn-huà yǐ-hòu,
gāo xiān-sheng mǎ-shang jiù gěi bāi xiān-sheng dà diàn-
huà, qǐng ta jīn-tian wǎn-shang lái chī wǎn-fàn.
/Wan Professor to Kao Mr. strike past-particle telephone
after, Kao Mr. immediately then to Pǎi Mr. strike tele-
phone, invite him today evening come eat supper. /

'After Professor Wan telephoned Mr. Kao, Mr. Kao
immediately telephoned Mr. Pǎi to invite him to come
tonight for supper.'

3 This example is taken from DeFrancis, op. cit., p. 430.
If a sentence contains two NPs, a pronoun in a following sentence may be used to refer to either one of them, the context making it clear which one is being referred to. Thus, tā refers, in the first of the following examples, to the second of the NPs, zhāng xian-sheng, but in the second example tā refers to the first of the NPs, mài-piào-yuán:

(1) Chēn xian-sheng dài le zhāng xian-sheng dào wǒ jiā lái kàn-kan. Tā yǐ jīn lái jiù shuō le hěn duō hěn kè-qì de huà.

/Chen Mr. bring past-particle Chang Mr. to I home come have-a-look. He as-soon-as enter come then say past-particle very many very polite modifier-particle word./

'Mr. Chen brought Mr. Chang to my house for a visit. As soon as he entered, he said a lot of very polite things.'


/Ticket-seller tell Pai Mr. approximately twenty minute then arrive perfect-particle. He ask Pai Mr. home at where./

'The ticket-seller told Mr. Pai that they would arrive in about twenty minutes. He asked Mr. Pai where his home was.'

4 This example is from DeFrancis, op. cit., p. 432.
It appears that, if the first sentence containing the two NP's is a question, a pronoun in the answer or in the next clause after a short answer will, more often than not, refer to the first of the NP's. However, the context may be such as to indicate that the pronoun refers to the second of the NP's rather than the first.

The degree to which the use of tā or tā-men is required.—It seems impossible to draw a clear line between those situations where the choice between an NP and a pronoun is quite optional and those where an NP must be used, on the one hand, or between those where the choice is optional and those where a pronoun must be used, on the other.

Whether one chooses a pronoun or an NP seems to make the least difference in answers to questions. Thus Xiān-sheng liǎng diǎn bàn lái /Teacher two o'clock half come/ 'The teacher is coming at half past two' and Tā liǎng diǎn bàn lái 'He is coming at half past two' are equally appropriate as answers to the question:

Xiān-sheng shén-mo shí-hour lái?
/Teacher what time come?/
'What time is the teacher coming?'

In cases where the second reference is made in the following or next following sentence, it seems that the choice is also quite optional, although the decision to use an NP for the second reference, especially if it is a subject,
emphasizes the break between that sentence and the preceding one. An example of this is:


/Enter modifier-particle is I modifier-particle Chinese friend. See him I extremely happy, immediately ask him sit-down, for him pour-out tea. I modifier-particle friend say: don't polite, you continue study suggestion-particle! /

'It was my Chinese friend that came in. I was extremely happy to see him and immediately invited him to sit down and poured tea for him. My friend said, "Don't be so polite--continue your studying."

The number of cases where someone is referred to a second time in the same sentence by an NP seems much fewer than those where a pronoun is used for a second reference in the same sentence. The cases where an NP is used seem to be prompted by the fact that there are intervening references to other people--although these references are still to some person or persons of a different number or person (wǒ or nǐ).

An example is:

Xiān-shēng shuō zhōng-wén shuō de hěn màn, hěn qīng-chu, tā-men dōu néng dōng xiān-shēng shuō de huà.

/Teacher speak Chinese speak complement-particle very slow, very clear, they all can understand teacher speak
modifier-particle word."

'The teacher speaks very slowly and clearly; they all can understand what the teacher says.'

As in the other examples of two instances of the same NP in one sentence that I have found, the two instances of xiān-shēng in this example are in two different independent clauses with no connecting conjunction.

There are few cases where a second reference is made by a pronoun if that sentence is separated from the first reference by more than one intervening sentence, especially where the intervening sentence contains subject matter in which the person referred to is not involved.

Choice of an NP or a pronoun in those places where the choice is optional is a matter of style, according to Gleason's definition: "Style is the patterning of choices made within the options presented by the conventions of the language and the literary form."\(^5\) One type of stylistic choice reflects a desire for parallelism in expression, as exemplified by the use of the second mào zhǔ-xǐ 'Chairman Mao' rather than tā in the following sentence:


/Mao chairman lead complement-particle truly good, we

all love-ardently Mao chairman, love-ardently the-
Communist-Party./

'Chairman Mao has been a truly great leader; we all love
Chairman Mao and the Communist Party.'

Sometimes using an NP rather than a pronoun allows the
speaker to refer to the same person or persons by a different
noun. An example is

Wǒ-men yǒu bù-shǎo jí-hùi hé zhōng-guó tóng-xué zài-yì-
qí. Zhèn-xī zhōng-guó qīng-nián dōu hěn rè-qíng, fēi-
cháng kǎ-hài.

'We have quite-a-few opportunity with Chinese classmate
together. These Chinese youth all very warm, extremely
lovable./

'We have quite a few opportunities to be together with
Chinese classmates. These Chinese young people are all
very warm and extremely lovable.'

An NP that makes a second reference to a person or
persons follows one of several possible patterns. What
these patterns are and to what extent a choice of one of
them is stylistic will be discussed in the next chapter,
since NP's used as second references to referents other than
persons follow the same patterns.
Zero Substitutes

General Conditions for Use of Zero Substitutes

The use of zero anaphora in second references to persons follows the same set of rules if the speaker or listener is referred to or if someone other than the speaker or listener is referred to. As already mentioned, zero is the only substitute in the system of reference to speaker or listener or groups of people including them, since 五, 尼, 五-men, and 尼-men, although called pronouns, are not substitutes for NP's. In the system of reference to persons other than speaker or listener, zero functions as a substitute along with 他 and 他-men.

Zero reference to persons is much more restricted in use than 他 and 他-men are. Zero can only be a substitute for a subject, and the overt reference to the same person that is found in the same sentence or the previous sentence is also a subject, except in one type of situation to be described later.

Short Answer Patterns

A separate system of ellipsis.--The use of short answers to questions involves so much less restricted a set of functions for zero that it must be considered a separate system. The system is most easily described in terms of what is overtly expressed in the short answer rather than in
terms of what is not. This system applies without regard to
whether the nouns covertly referred to are persons or not.
As will be seen, words of many other word classes are also
left covertly expressed. The patterns which short answers
follow are described first. Then in describing zero
references to persons in other types of sentences, I assume
that it is unnecessary to state explicitly each time that
the rules apply as stated except in the case of short
answers.

By a "full answer" is meant an answer whose overt
grammatical parts correspond to those of the question. In
contrast to full answers, "short answers" consist of overt
expression of grammatical parts which correspond only to
some, not all, of the grammatical parts of the question. In
either full or short answers to "Yes-No" questions, there is,
of course, nothing to correspond with the question particles
or other words that make the sentence a question.

Types of questions.—A "Yes-No question" is a question
that anticipates an answer in terms of "Yes" or "No." Such
a question is signalled, apart from the intonation, by one
of the particles ma, ba, or ne, or by the A-not-A pattern,
where A is the first verb of the verb phrase, a verb + un-
specified object sequence, or else shì 'be.' Examples, with
full answers, are

(1) (A) Wǒ bù qù ma?  (B) Wǒ bù qù.
    /(A) You not go question-particle?  (B) I not go./
'(A) Aren't you going?  (B) No, I'm not.'

(2) (A) Nǐ qù bù qù?  (B) Wǒ qù.
   /(A) You go not go?  (B) I go./
   ' (A) Are you going?  (B) Yes, I am.'

(3) (A) Nǐ yào bù yào qù?  (B) Wǒ bù yào qù.
   /(A) You want not want go?  (B) I not want go./
   ' (A) Do you want to go?  (B) No, I don't.'

(4) (A) Nǐ bù qù, shì bù shì?  (B) (Shì,) Wǒ bù qù.
   /(A) You not go, is not is?  (B) (Is,) I not go./
   ' (A) You're not going, is that right?  (B) (Right,) I'm not going.'

(5) (A) Tú-shū-guǎn kāi mén bù kāi mén?  (B) Tú-shū-guǎn kāi mén.
   /(A) Library open door not open door?  (B) Library open door./
   ' (A) Is the library open?  (B) Yes, the library's open.'

A "Q-word question" contains a question word such as shéi 'who' or duō-shào 'how many' and may end with the particle ne. An example, with full answer, is

(A) Nǐ dào nǎr qù (ne)?  (B) Wǒ dào xué-xiào qù.
   /(A) You to where go (question-particle)?  (B) I to school go./
   ' (A) Where are you going?  (B) I'm going to school.'

An "Or question" contains the word hái-shì 'or.'

Examples, with full answers, are

(1) (A) Nǐ qù hái-shì bù qù?  (B) Wǒ qù.
/(A) You go or not go? (B) I go./
'(A) Are you going or not? (B) I'm going.'
(2) (A) (Shì) nǐ bù qù hái-shí tā bù qù? (B) Shì tā bù qù.
/(A) (Is) you not go or he not go? (B) Is he not go./
'(A) Is it you that aren't going or he that isn't going? (B) It's he that isn't going.'

Answers to Yes-No questions.---Short answers to Yes-No questions follow these patterns. (1) The short answer consists of the main verb in the verb phrase of the question, plus one of the words used to express aspect, le, guò, zhe, or (zhèng) zài, if it is included in the question. The main verb is the first verb in a predicate unless it is a coverb (called a "preposition" by Chao). A "coverb" is one of a set of verbs which, with its object, precedes the main verb and modifies the following phrase beginning with that main verb. Coverbs are often best translated by prepositions in English like with, for, instead of, to, from, or at. Auxiliary verbs are main verbs for they are the heads of the constructions in which they are found. Resultative, directional, and potential complements are to be considered part of a verb in this and the following rules. The adjective in a descriptive complement is to be considered the first verb.  

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6 An example of a resultative complement is wán 'be ended' in chǐ wán 'finish eating (something).' An example of a directional complement is shàng lái 'up come/ 'come up' in ná shàng lái 'carry up come/ 'bring (something) up.' Examples of verbs with potential complements in the affirmative are
However, an adjective, especially a one-syllable adjective, does not ordinarily appear alone as an answer; it would usually be modified by a word like hên 'very' or else a different pattern for the answer would be followed. Rules like this one which allow for the zero expression of objects or complements do not apply to questions about frequency or duration of a past action. For example, *đông le cannot be the answer to

Nkład đông le hên jiǔ le ma?

/You wait past-particle very long-time perfect-particle question-particle?/

'Did you wait a long time?'

Nor do such rules apply to questions with zài 'at' as first and/or main verb (unless this verb is used in the question without object or complement, to mean 'be at home' or 'be alive').

(2) The short answer may consist of the main verb, if it is an auxiliary verb, plus the next verb unless that next verb is one of those which, if it were the main verb, could

xǐ de gân-jíng /wash complement-particle clean/ 'able to wash (something) clean' and ná de shàng lái 'able to bring (something) up'; examples of verbs with potential complements in the negative are chǐ bù wán 'unable to eat (something) up' and xǐ bù gân-jíng 'unable to wash (something) clean.' Adjectives in potential complements are never modified. In descriptive complements they may be, as in xǐ de hên gân-jíng 'get (something) very clean by washing it,' or xǐ de bù gân-jíng 'not get (something) clean when washing it.' Chao also calls descriptive complements "predicative complements" (op. cit., p. 478).
not follow pattern (1)—i.e., verbs with frequency or duration complements, etc.

(3) The short answer may consist of the first verb, as allowed by pattern (1), any succeeding verb, plus the following object or complement.

(4) The short answer may consist of a subject which is a goal plus any of the sequences of words described in patterns (1) and (2).

Patterns (5) through (9) are negative short answer patterns. Pattern (5) is the negative of pattern (1). The regular negative form is *bù* + verb. The negative of *yǒu* 'have' is *méi* *yǒu*. The negative of a verb plus one of the aspect words is *méi* (*yǒu*) + verb, except in cases involving *guo* or *zhe* when it is *méi* (*yǒu*) + verb + *guo/zhe*.

Pattern (6) is the negative of pattern (2).

Pattern (7) is the negative of pattern (3).

Pattern (8) is the negative of pattern (4).

Pattern (9) is the negative *méi yǒu* alone, as an alternative to pattern (5) when it is the negative of a verb plus an aspect word.

Patterns (10) to (18) correspond to patterns (1) to (9) respectively except that an agent subject is also expressed. In some cases these may be equivalent to a full answer.

Time words, or adverbs such as *yě* 'also,' *dōu* 'all,' *hái* 'still,' *dāng-rán* 'of course,' *yí-dìng* 'certainly,' or
da-gài 'probably,' can be added in the answers. If yě, dōu, or hái are in the question, they are often included in the answer.

The examples that follow are numbered according to the pattern they illustrate. They are possible short answers to the question:

Nǐ-men huì bú huì yòng zì-diǎn?
/You can not can use dictionary?/
'Do you know how to use a dictionary?'

(1) Hùi.
(2) Hùi yòng.
(3) Hùi yòng zì-diǎn.
(5) Bú huì.
(6) Bú huì yòng.
(7) Bú huì yòng zì-diǎn.
(11) Xiàn-zài hái bú huì.
/Now still not can./
'Not yet.'
(14) Wǒ-men hái bú huì.
'We aren't yet able to.'

Some possible short answers to the next question follow it.

Zhèi běn shū nǐ kàn le méi you?
/This book you read past-particle not have?/
'Have you read this book?'

(1) Dāng-rán kàn le.
'Of course I have.'

(5) 美有看。

(9) 美有。

(10) 我看完了。

(8) 这本没有看过。

There are at least three forms which function as short answers to Yes-No questions and yet are to be distinguished from the regular patterns just described and illustrated, for there is no zero expression of elements from the question in them. They are complete clauses of a special type. One is Dùi le 'That's right' which indicates an affirmative answer. Shì is also used as a general affirmative answer to a question like

Zhī yǒu bā ge wèn-tí, shì bù shì?
/Only have eight M question, is not is?/
'There are only eight questions, aren't there?'

It may appear that this short answer shì follows pattern (1), but it differs from pattern (1) in several respects.
(a) As already mentioned, there are no other elements from the question understood in the answer. (There is no *zhī yǒu bā ge wèn-tí shì that the shì could be standing for.
Similarly, there is no *Shì zhī yǒu bā ge wèn-tí that shì could stand for as the answer to Shì bù shì zhī yǒu bā ge wèn-tí?, which has the same meaning, 'Are there only eight questions?')
(b) Shì would be a pattern (1) answer only if the question were considered to be shì bù shì and not the whole sentence: Zhī yǒu bā ge wèn-tí, shì bù shì? But there is no point in arguing for this since it is quite impossible to say that the Shì bù shì is a question distinct from a following statement in Shì bù shì zhī yǒu bā ge wèn-tí?, which requires the same kind of short answer. (c) The negative of the shì answer is not bù shì as it should be (cf. pattern 5) if shì were a pattern (1) answer--the negative
The negative ぶ alone expresses a general negative answer, and is almost always followed by an explanatory clause. An example is

(A) ㄒin-ㄕeng, ㄨㄨe-ㄕeng ㄉㄠ yǒu ㄨㄨa-bㄤ o?  (B) ㄅ, ㄨㄨe-ㄕeng yǒu ㄨㄨa-bㄤ, ㄒin-ㄕeng mㄟ yǒu ㄨㄨa-bㄤ.

/(A) Teacher, student all have pictorial question-particle?
(B) No, student have pictorial, teacher not have pictorial./

'(A) Do the teachers and the students all have pictorials?
(B) No, the students do but the teachers don't.'

As an answer to a negative question, ぶ alone means just the opposite of any of the negative patterns (5) through (9). Compare the answers in the following two examples:

(1) (A) ㄆ acupuncture?  (B) ㄅ, ㄨㄛ yㄠ acupuncture.

/(A) You not go question-particle?  (B) No, I want go./

'(A) Don't you want to go?  (B) I do want to go.'

(2) (A) ㄆ acupuncture?  (B) ㄅ acupuncture.

/(A) You not go question-particle?  (B) Not go./

'(A) Don't you want to go?  (B) No, I don't.'

ぶ is also found in a discourse, not as an answer to a question, but as an interruption with purpose to contradict what the other person has just said. Similarly ㄕi le interrupts to express agreement with what has just been said.

is ㄅ. Actually there is no short answer that follows any of the eighteen patterns described above that is suitable as an answer to this ㄕi ㄅ ㄕi type of question.
Answers to Q-word questions.--Short answers to Q-word questions, unlike those to Yes-No questions, do not necessarily have a verb. The shortest answers correspond in grammatical form to the constituent in the question which is or contains the question word. However, it is very common when answering questions about some part of the predicate to use an answer pattern that does include the verb.

The short answer to a question about the subject may be an NP, an NP substitute with zero head (see Chapter II), or a pronoun. An example is

(A) Jī ge xiān-sheng yào lái? (B) Liǎng ge (xiān-sheng).
/(A) How-many M teacher want come? (B) Two M (teacher).
'(A) How many teachers are coming? (B) Two (teachers).

An answer with subject and all of the predicate except the object can also be considered a short answer. An example is

(A) Shéi yào chī dà bǐng? (B) Wǒ yào chī.
/(A) Who want eat big cake? (B) I want eat.
'(A) Who wants to eat some "big cake"? (B) I do.

Questions about time may be answered simply by a corresponding time word or phrase or by the time word or phrase plus the rest of the predicate. An example is

(A) Zhè liǎng qī-chē shén-mo shí-hour kāi? (B) Wǔ diǎn bàn (kāi).
/(A) This M bus what time start-out? (B) Five o'clock half (start-out).
'(A) When does this bus leave? (B) At five-thirty.
The object in the predicate may be omitted, as in

(A) Nǐ měi tiān yào jiè kè-běn? (B) Wǒ hòu-tiān jiè, hǎo bù hǎo?
/(A) You which day want borrow textbook? (B) I day-after tomorrow borrow, OK not OK?/
'(A) Which day do you want to borrow the textbook?
(B) I'll borrow it the day after tomorrow, OK?'

Questions about objects of coverbs include most
questions about place. The answer may be (1) simply the
appropriate object; (2) the coverb plus the object; (3) the
subject plus coverb and object; (4) the coverb, object, and
remainder of the predicate; or (5) if there is a time word
in the question, the time word plus what is specified in
either (2), (3), or (4). Certain coverbs do not occur with­
out the rest of the predicate, e.g., cóng 'from.' The fol­
lowing short answers, numbered according to the pattern
exemplified, are possible for this question:

Nǐ měi tiān yòng duō-shǎo shí-jīān kàn bào?
/You each day use how-much time read newspaper?/
'How much time do you spend reading the newspaper every
day?'
(Yòng is a coverb in this question.)

(1) Yì xiǎo-shí.
'One hour.'

(2) Yòng yì xiǎo-shí.

(3) Wǒ yòng yì xiǎo-shí.
(4)  yòng yì xiǎo-shí kàn báo.
(5)  měi tiān yòng yì xiǎo-shí kàn báo.
(5)  wǒ měi tiān yòng yì xiǎo-shí.

Short answers to a question about an object or complement of a main verb may be (1) simply the appropriate corresponding object or complement; (2) that part of the predicate beginning with the main verb; (3) if there is a coverb and object in the question, the coverb and object plus what is specified in (2) or the subject plus what is specified in (2); or (4) if there is a time word or expression in the question, the time word plus what is specified in (2) or (3), or the subject plus time word plus coverb and object. Below are short answers exemplifying these patterns for the following question:

Nǐ-men měi tiān shàng jǐ jíé kè?
/You each day attend how-many M class?/
'How many classes do you go to each day?'
(1)  Sì jíé.
'Four.'
(2)  Shàng sì jíé.
(4)  Měi tiān sì jíé.
(4)  Měi tiān shàng sì jíé.

The following question has the coverb zài 'at':

Nǐ zài běi-jǐng yào zhù jǐ nián?
/You at Peking want live how-many year?/
'How many years are you going to stay in Peking?'
Examples of short answers for this question are

(1) Sān nián.
    'Three years.'
(2) Yào zhù sān nián.
(3) Zài běi-jīng yào zhù sān nián.
(3) Wǒ yào zhù sān nián.

If the Q-word is in the predicate of a "de for specification" type of question, the shì in the answer may be left out (just as it may in the question). An example is

(A) Nǐ (shì) gēn shéi yǐ-qǐ qu de?  (B) Gēn wǒ-men bān shàng de tóng-xué yǐ-qǐ qu de.

/(A) You (are) with whom together go modifier-particle?
(B) With we class on modifier-particle classmate together go modifier-particle./

'(A) Who did you go with?  (B) With classmates from our class.'

The above discussion of short answers to Q-word questions is not exhaustive but is sufficient to show what the regular patterns are. Time words or certain adverbs may be added to the answers.

Answers to Or questions.--A short answer to an Or question consists of one of the alternatives presented in the question. If the subject is not part of the alternatives given in the question, inclusion of the subject in the answer would make a full answer; if a subject is part of the alternative chosen for the answer, there would be no difference
between a short and a full answer. Examples with short answers are

(1) (A) Nǐ xiān mǎi gāng-bǐ hái-shi xiān kàn pénɡ-you?
   (B) Xiān mǎi gāng-bǐ.
   /(A) You first buy pen or first visit friend?
   (B) First buy pen./
   ' (A) Are you going to buy the pen first or see your friends first?  (B) Buy the pen first.'

(2) (A) Hái-shi zhè běn yǒu-yí-si hái-shi nèi běn yǒu-yí-si?
   (B) (Shì) nèi běn yǒu-yí-si.
   /(A) Either this one interesting or that one interesting?
   (B) (Is) that classifier interesting./
   ' (A) Which is more interesting, this one or that one?
   (B) That one is.'

Those parts of the full answer left unexpressed in the short answer are to be understood since the meaning of the short answer is exactly the same as that of the full answer. It seems completely optional which of the answer patterns is followed in any one instance, so choice of answer patterns is purely a stylistic matter.

Specific Conditions for Use of Zero Substitutes

Cases of no zero reference to persons.--Although there are cases where an indirect person object could be supplied from context, still this is not sufficient reason to say that this indirect object is meant to be understood.
Rather, the evidence points, on the one hand, to the fact that specification of indirect objects is quite optional, and, on the other, to the conclusion that zero reference to specific persons is limited to the subject position.

For similar reasons, one should not consider modifiers to nouns as being understood where they could be supplied by the context; for example, there is not sufficient reason to suppose that nǐ de 'your' is to be understood before shū 'book' in the following sentence even though it may be clear from the context that the books in question do belong to the listener:

Chīng nǐ bā shū ná-kāi.
/Please you object-marker book take-away./
'Please take your books away.'

There is no need to posit an understood NP or pronoun in every case where no agent is specified for a verbal. This is most obviously true where the verb is yǒu in the sense of 'there is' as in

Méi yǒu gòng-chǎn-dǎng, jiù méi yǒu xīn zhōng-guó.
/Not have the-Communist-Party, then not have new China./
'If there hadn't been the Communist Party, there wouldn't be a new China.'

It is also true in cases where no specific agent is indicated in the context; thus no agent is understood in any of the three instances of chāng 'sing' in

(A) Xià-biār de jié-mù shì chāng gēr. nǐ tīng, yǐ-jīng
chàng-qì-lai le. (B) Chàng de shì shén-mo gēr?
/(A) Below modifier-particle program is sing song. You listen, already begin-singing perfect-particle. (B) Sing modifier-particle is what song?/
'(A) The next program is singing. Listen, they've already started singing. (B) What song is it they're singing?'

In statements which apply to people in general, no noun needs to be considered as understood, either. An example is
Đà shēng niàn kè-wén ké-yì bāng-zhu fā-yín.
/Large voice read-aloud lesson can help pronunciation./
'It helps one's pronunciation to read out loud in a loud voice.'

In the next example of the same type, zì-jǐ 'self' refers back to whoever the agent may be, but since the agent is unspecified and neither expressed or understood, no noun is understood before zì-jǐ either:
/If hope self speak modifier-particle word, China people can understand, need pronunciation accurate./
'If one hopes that Chinese people will be able to understand what one is saying, it is necessary that one's pronunciation be accurate.'

Often no agent is expressed when the subject is a goal, as in
Zhai 'shuang wà-zì chuán-pò le.
/This pair sock wear-out perfect-particle./
'This pair of socks is worn out.'
Such predicates with no agent expressed are also found as modifiers of nouns, of course, and again no agent needs to be supplied as understood. An example is

Xué-wán de yǔ-fǎ nǐ dōu jí-zhù le ma?
/Complete-studying modifier-particle grammar you all remember perfect-particle question-particle?/
'Do you remember all the grammar that has been covered?'
There is no agent expressed or understood for the verb xué-wán.

Defective clauses modifying nouns.—A zero substitute can be posited in the defective clause type of noun modifier. However, these cases of zero anaphora are not cases of second reference. In such constructions, the noun head enters into two relations. One is the modifier-head relation. This is directly represented by the IC structure. An example is

zài nǐ yòu-biār de nǚ hái-zǐ
/at you right modifier-particle female child/
'the girl on your right'
The modifier-head relation is represented by the fact that zài nǐ yòu-biār de and nǚ hái-zǐ are the two IC's of the whole construction (and also by the modification particle de). However, nǚ hái-zǐ is related to zài nǐ yòu-biār
(without the de) as subject to predicate. It is clear that nǚ hái-zi refers to the person who "is on your right." But there is no direct, overt expression of this in the IC tree, the terminal nodes of which form the string zài nǐ yóu-biār de nǚ hái-zi. The same is true where the noun head is related to the modifying clause as object of the verb in that clause. An example is

nǐ xǐ-huan de nǚ hái-zi
/you like modifier-particle female child/

A slightly different analysis, which appears to me to have good justification but which it is not appropriate to argue for here, is that in this example the head is related to the modifying clause as a goal subject to a predicate. In the next example cited above, nǚ hái-zi would be said to be related to the modifying clause as subject to a predicate, too, but this time the subject is neither agent or goal (of the main verb). The tā shows that the subject is related to the coverb gēn as its goal. This would mean that in this example there is still one relation, the subject-predicate relation, not overtly expressed, and in the preceding two examples there are two relations not overtly expressed—subject-predicate in both, but agent-verbal in the first and verb-goal in the second. The noun heads are thus related to the modifying clauses as subjects to predicates in every case. In transformational terms, this means that the application of the transformation rule that embeds the sentence into the NP is conditioned by the restriction that the shared noun must be subject of the sentence to be embedded. The matter of whether or not the predicate in this embedded sentence contains an overt pronoun substitute as in my third example will have already been taken care of since the rules seem to be the same as those requiring pronouns in the predicates of independent clauses with subjects that are not agents or goals.
Zero subjects that refer to persons previously referred to are rarely goals. This corresponds to the fact that overtly expressed subjects referring to persons are rarely goals, just as objects of verbs other than coverbs are much more likely to be inanimate objects than persons.

Zero reference in the same sentence.—There are several types of two-clause sentences in which a zero substitute is regularly used. The first of the clauses is dependent and may be introduced with, or contain, the words yào-shí 'if' (or one of the several other words of similar meaning), yín-wèi 'because,' or time expressions like de shí-hour 'when,' yǐ-hòu 'after,' and yǐ-qían 'before,' or no connecting word at all. In the latter case the intonation and degree of pause used may sometimes be the only overt expression of the fact that the first clause is dependent on the second. Many times, however, the second clause contains a jǐu 'then' or cāi 'then,' or the first clause contains the adverb yǐ 'once,' or the predicate in the first clause follows the pattern: verb + le + object, where the object is an

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9 See Chao, op. cit., pp. 73-74.
unmodified noun. In such cases the first clause can only be dependent. These dependent clauses express time, cause, or condition. Jìù 'then' is also commonly found in the second clauses of the sentences with yào-shí 'if,' yīn-wèi 'because,' de shí-hour 'when,' etc. Suǒ-yǐ 'so, therefore' sometimes occurs in the second clause as a correlative with yīn-wèi 'because.' Yào-shí 'if' and yīn-wèi 'because' are movable adverbs, i.e., they may precede or follow the subject of the clause they introduce.

Examples of such sentences with zero substitutes as subjects of the second clause are

(1) Yào-shí nǐ nǔ-lè xué-xí, ǔ yì-dǐng hùi yǒu gèng dà de jǐn-bù.
/If you hard study, ǔ certainly can have even-more great modifier-particle progress./
'If you study hard, you will certainly make even greater progress.'

(2) Yīn-wèi wǒ xué-xí hěn máng, ǔ zhǐ gěi tā-men xiě guò liǎng sān cì xīn.
/Because I study very busy, ǔ only to them write experience-particle two three time letter./
'Because I've been very busy studying, I have only written them two or three times.'

(3) Wǒ shuō huà de shí-hour, ǔ hái cháng-chang shuō cuò.
/I speak word modifier-particle time, ǔ still often speak mistaken./
'When I speak, I still often make mistakes.'

(4)  Wǒ pà ràng rén kàn-jian, 0 jiù lì-kè pāo-kāi le.
/I afraid let people see, 0 then immediately run-away past-particle./
'Being afraid of being seen, I immediately ran away.'

(5)  Wǒ yí dào běi-jīng 0 jiù qù guò le.
/I once arrive Peking 0 then go experience-particle past-particle./
'As soon as I arrived in Peking, I went.'

(6)  Wǒ kàn le xìn, 0 fēi-cháng gāo-xìng.
/I read past-particle letter, 0 extremely happy./
'When I read the letter, I was extremely happy.'

(7)  Nǐ xiàn-zài yào yòng, 0 kě-yí zài tú-shū-guǎn jiē.
/You now want use, 0 can at library borrow./
'If you want to use it now, you can borrow it from the library.'

(8)  Wǒ xué-xī zhōng-wén, 0 yīng-gāi yǒu zì-diān.
/I study Chinese, 0 ought-to have dictionary./
'Now that I am studying Chinese, I ought to have a dictionary.'

The reasons for positing a zero substitute as subject in the second clauses of the above sentences are two.

The first is that the sense of the sentences is that the subject of the verbs in these clauses is the same as that expressed as subject in the initial clauses. If any other person were meant as the subject of the second clause, there
would be an overt NP or pronoun. If the speaker intended the subject to be indefinite, neither clause would have a subject expressed (this does not mean that there are not cases where a specific subject is meant in both clauses and left unexpressed in both--see example on page 104). Nor is it a matter of not intending to express linguistically who the subject is although the larger linguistic context or the behavioral context of the dialogue may make it possible to infer who actually would be the subject. There is no such option in these sentences--if the subject is anyone in particular (and it has already been shown that it cannot be indefinite), it can only be the same as the subject of the first clause. A clinching argument would be that the grammar of Chinese does not allow the speaker to express the second subject overtly if he intends it to refer to the same person as the first subject. However, this is scarcely the case, although, in sentences like those just illustrated, it is much more likely that the second subject will not be expressed. In other cases to be described below, the choice is quite optional. The fact that a specific subject is intended by the speaker but not expressed is a reason for positing a zero substitute in all cases which I discuss below and need not be repeated in each case. A second necessary step in the argument is that the IC structures of the sentences in question provide no direct way of representing the relation between intended subject and the
predicate. It will be necessary to demonstrate this point for each set of sentences of a different type.

In the case of the sentences just illustrated, the intended relationship could be expressed in the IC structure only if the predicates of the two clauses together formed a single construction to which the subject was directly related. This may be the case in sentences where there are two coordinate predicates, for example:

\[ Tā bù chōu-yān, yě bù hé jiǔ. \]
/He not smoke, also not drink wine./

'He doesn't drink or smoke.'

In such cases positing a zero subject for the second predicate may be unjustified. But the above examples cannot be analysed in this way even though it might be supposed that, for example, when yào-shí follows the subject, the IC analysis should be as for the following sentence (cf. sentence 1, page 96):

\[ Nǐ yào-shí nǚ-lǐ xué-xī yí-dīng hūi yǒu gèng dà de jīn-bù \]

This analysis, however, would be impossible in a sentence with two different subjects like

\[ Wǒ yào-shí hūi qù, dà-jīā yě dōu kě-yí hūi qù. \]
/I if return go, everybody also all can return go./

'If I go back, everybody else can go back, too.'

The position of yào-shí in relation to the first subject has nothing to do with whether or not the second subject is the
same or different. The same is true of *yīn-wèi* 'because.' We can only conclude that the IC structures of these sentences are essentially the same whether or not the subject of the second clause is the same as that of the first or not. If the subjects are the same, the second one is regularly left "understood."

In the cases where the first clause ends in a time connective, or contains no connective at all, it may appear that one should analyse the IC structure so as to avoid having to posit a zero subject. Two examples (cf. sentences 3 and 6, pages 96-97) showing this kind of analysis would be

![Example 1](image1)

![Example 2](image2)

But this analysis means that sentences with two different subjects have a significantly different IC structure. An example is

*Wō shuō huà de shí-hour, tā cháng-chang xiào.*

'I speak word modifier-particle time, he always laugh.‘

'When I speak, he always laughs.'

Moreover, there are many sentences with two identical subjects where the subject is expressed in the second clause,
rather than in the first, e.g., *Shuō huà de shí-hour, wǒ hái cháng-chang shuō cuò*. To make the IC analysis of this sentence parallel to that diagrammed above for *Wǒ shuō huà de shí-hour, hái cháng-chang shuō cuò* would require recognizing a discontinuous constituent interrupted by *wǒ*. This study is not the place to discuss the question of discontinuous constituents, but it seems to me that to allow for discontinuous constituents in an IC tree is to contradict the essential nature of the relations that an IC tree is constructed of, namely, order relations. It is only the assumption that order relations between forms will correspond with the meaning relations between these forms that makes one allow for discontinuous constituents. Allowing for discontinuous constituents in *Shuō huà de shí-hour, wǒ hái cháng-chang shuō cuò* is a superficial and inadequate way of taking care of the essential similarity between this sentence and *Wǒ shuō huà de shí-hour, hái cháng-chang shuō cuò*. The only way, it seems to me, to show the essential similarity of structure in these two sentences as well as in the one where the two subjects are different (*Wǒ shuō huà de shí-hour, tā cháng-chang xiào 'When I speak, he always laughs'*) is to say that the two ICs of the sentence are the time clause and the following clause. A clause may or may not have a subject, either overt or understood, but if it does not have one, it is because no specific subject is part of the intended meaning of the speaker. Such is the case in
the two clauses of the following example:

Zài yǎn-jiǎng de shí-hour, bù néng suí-biàn shuō huà.
/In-the-process-of give-speech modifier-particle time,
not can as-one-pleases speak word./
'When giving a speech, one cannot just say what one pleases.'

In each of the clauses of the three sentences discussed above, a specific subject is intended, so that, where it is not expressed, a zero substitute must be posited.

Sentences with the subject expressed in the second clause rather than in the time clause appear to be more frequent than those in which it is expressed in the time clause. A similar variation occurs on all of the other patterns discussed above. Some examples follow.

(1) Yào-shí bù mǎi-de-zhào piào, wǒ míng-tian jiù qù kàn.
/If bù can-buy ticket, I tomorrow then go see./
'If I can get a ticket, I'll go and see it tomorrow.'

(2) Yīn-wéi bù néng dào xué-xiào qù niàn-shū, suǒ-yǐ wǒ cháng-cháng zài jiào-shì wài-biān tīng xiān-shēng jiǎng.
/Because bù not can to school go study, so I often at classroom outside listen teacher speak./
'Because I couldn't go to school to study, I often listened to the teacher outside the classroom.'

(3) bù Dào zhōng-guó lái yǐ-hòu, wǒ hái méi you qù guò gōng-chǎng.
To China come after, I still not have go experience-particle factory./
'Since coming to China, I hadn't yet been to a factory.'
(4) Kàn-jian tā, wǒ fēi-cháng gāo-xìng.
See him, I extremely happy./
'I was extremely happy to see him.'
(5) Dào le zhōng-guó, nǐ yào cháng-chang gěi wǒ-men xiě xìn.
Arrive past-particle China, you want often to us write letter./
'Write to us often after you get to China.'

The subject in the sentence or clause preceding sentences like these is often the same as that referred to in these sentences, so that one might say that it is the overt reference in the preceding sentence that is the definitive context for knowing what is covertly referred to in these initial clauses. However, there are also cases where sentences of this type appear and the subject of the preceding sentence or clause is not the same. An example is sentence 3, above; the subject of the preceding sentence is wǒ-men, not wǒ:

Xīng-qī-rì wǒ-men qù cān-guǎn le yī ge qì-chē gōng-chǎng.
/Sunday we go tour past-particle one classifier automobile factory./

'On Sunday we went and toured an automobile factory.'

On the other hand, there are sentences where the subject is
left unexpressed in both clauses and the subject of the preceding sentence or clause has to be relied on to know which one is meant. An example is

Tā bèi-jí wéi yǒu-diǎnr wān, yīn-wèi 0 bāo zhe hái-zi, 0 gèng xiǎn-chu qū bèi de yāng-zi.

/He back slightly a-little bent, because 0 carry continuous-particle child, 0 even-more show crooked back modifier-particle appearance./

'His back was a little hunched; because he was carrying a child, it showed even more.'

There are also cases where the subject in the first clause differs from that in the second but is left unexpressed, it being identical with the subject of the preceding clause or sentence. An example is

(A) Xiān-shēng de wèn-tí nǐ-men dōu huí-dá de dì ma?
(B) 0 Huí-dá de bù dì de shí-hour, xiān-shēng jiù gào-su wǒ-men.

/(A) Teacher modifier-particle question you all answer complement-particle correct question-particle? (B) 0 Answer complement-particle not correct modifier-particle time, teacher then tell us./

'(A) Do you answer all the teacher's questions correctly? (B) When we don't, the teacher tells us.'

The subject understood is wǒ-men 'we,' which goes back to nǐ-men and is different from xiān-shēng. Obviously, no one pattern of reference can explain all these examples. There
are two patterns: one is that an unexpressed subject is the same as the one in the preceding sentence or clause (this pattern will be further discussed and illustrated below); the other is that in sentences with time, condition, or cause clauses, the unexpressed subject in such clauses refers to the same person as does the subject in the second clause. My earlier definition of "second reference" must thus be revised to include the possibility of the first of two references being the unexpressed one, but it should be noted that this happens only under the conditions just stated. The reason for wanting to posit a zero in these cases has already been discussed. It is that there is a relation between the zero subject and the predicate that is nowhere expressed by the best IC analysis of these sentences—i.e., an IC analysis which excludes discontinuous constituents and ascribes an essentially similar structure to all these sentences whether or not both subjects are expressed and whether or not, if only one is expressed, it is in the first or the second of the clauses.

The same arguments apply to (and do not need to be repeated for) sentences of similar construction such as those in which the initial clause contains the connector súi-rán 'although,' sentences with dàn-shí 'but' introducing the second clause (whether or not the first has súi-rán), and sentences with suǒ-yǐ 'so' introducing the second clause but with no yǐn-wèi 'because' in the first (sentences with
suǒ-yǐ in the second clause and yīn-wèi in the first have already been treated). The difference between these sentences and those already discussed is that in these it seems to be more optional whether to express the subject in both clauses or only in the first. The following are examples with both subjects expressed, even though they refer to the same person or persons.

(1) Wǒ suí-rán lǎo le, wǒ hái yǒu hái-zi.
   /I although old perfect-particle, I still have child./
   'Although I am old, I still have children.'

(2) Tā xué-xí de tè-bié hǎo, dàn-shì tā bù jué-de mánɡ.
   /He study complement-particle especially good, but he not feel busy./
   'He does especially well in his studies, but he doesn't feel busy.'

(3) Wǒ dì běi-jīng de qíng-kuàng suí-rán zhī-dào de bù duō, dàn-shì wǒ zāo jiù ài-shang tā le.
   /I towards Peking modifier-particle circumstances although know complement-particle not much, but I early then fall-in-love-with her past-particle./
   'Although I didn't know much about Peking, I had long ago fallen in love with her.'

(4) Tā xiǎng ràng dà-jiā xué de yòu duō, yòu kuài, yòu hǎo, suǒ-yǐ tā yào hé dà-jiā tán-yi-tan.
   /He would-like-to let everybody learn complement-particle both much, and quick, and good, so he want
with everybody have-a-talk./

'He would like to have everybody learn a lot, quickly, and well, so he wants to have a talk with everybody.'

The following are examples with the subject expressed only in the first clause.

(1) Wǒ suí-rán zhǎng de bǐ nǐ gāo, dàn-shì ū shǐ yǒu wǔ-shí jī gōng-jīn zhòng.
/I although grow complement-particle compared-to you tall, but ū only have fifty several kilogram heavy./

'Although I have grown taller than you, I'm still only a little over fifty kilograms.'

(2) Wǒ hái xiǎng mài yī bèn jiù zá-zhī, dàn-shì ū méi yǒu mài-zháo.
/I still would-like-to buy one M old magazine, but ū not have succeed-in-buying./

'I was also thinking of buying an old magazine but I couldn't find one.'

(3) Wǒ tóng-wū zhī-dao wǒ xī-wàng jiē-dao xǐn, suǒ-yī ū jiǔ tī wǒ ná lái le.
/I roommate know I hope receive letter, so ū then for me carry some past-particle./

'My roommate knew I was hoping to get a letter, so she brought it for me.'

Another type of sentence in which it seems more or less optional to express the subject overtly in its second reference is that in which the two clauses contain contrasting
time expressions. An example with the subject expressed only in the first clause is

\[
\text{zuò-tian tā méi you lái shàng kè, jīn-tian } \emptyset \text{ yòu méi you lái shàng kè.}
\]

/'Yesterday he not have come attend class, today \emptyset again not have come attend class./

'Yesterday he didn't come to class, and he didn't come today either.'

The only way to avoid positing a zero subject, assuming that the relation between tā and yòu méi you lái shàng kè needs to be recognized in the structure of the sentence, is to say that there are two coordinate predicates which together are related to tā, but this would require saying that the first predicate was composed of two discontinuous constituents, zuò-tian and méi you lái shàng kè. It is better to treat the sentence as made up of two coordinate clauses with the subject in the second being referred to covertly rather than overtly. This analysis would then parallel the obvious analysis of sentences where both subjects are overtly expressed. An example with three successive clauses, all with overt subjects, is

\[
\text{zuò-tian wǒ fù-xí le yí biàn, jīn-tian shàng-wu wǒ yòu fù-xí le yí biàn, wǎn-shang wǒ hái xiǎng zài fù-xí yí biàn.}
\]

/'Yesterday I review past-particle one time, today morning I again review past-particle one time, evening I
still would-like-to again review one time./
'I reviewed it once yesterday, once more this morning, and would like to review it again once more this evening.'
The time word in the first clause may come after the subject rather than before, as in

Wǒ xiàn-zài bú yòng, xīng-qī-rì wǒ jiù qù mǎi.
/I now not use, Sunday I then go buy./

'I don't need it now; I'll go and buy it on Sunday.'

Although the question of what should be considered subjects in Chinese sentences has not been dealt with adequately yet, I am inclined to agree with Chao that time words are subjects. (Perhaps only those which precede agent subjects are subjects.) This would mean that in the example just cited, wǒ is the first subject in the first clause but the second in the second. However, this makes no difference to the analysis of the sentence at the first level--this sentence is clearly composed of two coordinate clauses. A similar analysis, when applied to sentences with the subject left unexpressed in the second clause, requires that a zero substitute be recognized in such sentences.

There are a number of sentences in my corpus with more than one predicate (or at least more than one verb phrase) for which the evidence is not quite so clear for their being analyzed as coordinate clauses rather than as coordinate predicates or verb phrases. If the correct analysis is that they are coordinate clauses, then I posit
a zero subject in the second clause. This is not because I believe every clause has to have a subject. It is because the subject-predicate construction always occurs within a clause. If an overt subject outside of a clause is seen to be also the subject for that clause, then a substitute for it is posited as being in that clause. The previous discussion has shown that we must entertain the possibility of their being coordinate clauses with zero subject in the second clause. On the other hand, there is good evidence for the occurrence in many Chinese sentences of coordinate predicates; in these cases a zero subject does not need to be posited. The following is an example of two coordinate predicates in a time clause:

Wǒ-men shàng-wán le dì-sī jié kē, huí sù-shè de shí-hour, wǒ yù-jian le yí ge èr nián-jī de xué-shēng.
/We finished-attending past-particle fourth M class, return dormitory modifier-particle time, I meet past-particle one M second year modifier-particle student./

'When we got out of the fourth class and were returning to the dormitory, I met a second year student.'

In the next example dōu 'all' goes with both of the following verb phrases and so I consider them coordinate:

Tóng-xué-men dōu hěn guān-xīn tā de bìng, xǐ-wàng tā zǎo yì-diǎn hǎo.
/Classmate all very be-concerned-about he modifier-particle illness, hope he early a-little well./
'His classmates are all concerned about his illness and hope he'll get well soon.'

In the yào-shí clause of the following example, the time word xiàn-zài 'now' applies to both of the coordinate verb phrases:

Tā yào-shí xiàn-zài zhǎo dài-fu kàn-kan, chī yì-diǎr yào, yě-xū míng-tiān jiù néng hǎo.

/He if now look-for doctor have-a-look, eat a-little medicine, probably tomorrow then can well./

'If he gets a doctor to take a look and takes some medicine now, then tomorrow he'll probably be better.'

Two coordinate predicates may be signalled by bú-dàn 'not only' in the first and bìng-qǐě 'but also,' ér-qǐě 'but also,' or hái 'also' in the second. Sometimes the bú-dàn is not included. An example is

Wǒ bú-dàn yào gèn ta-men zuò zǔi hǎo de péng-you, hái yào xiǎng ta-men xué-xǐ.

/I not-only want with them be most good modifier-particle friend, also want from them learn./

'I not only want to be the best of friends with them, I also want to learn from them.'

On the basis of these clear examples of coordinate predicates and verb phrases, we should be prepared also to find coordinate predicates without connectors or adverbs that help show their coordinate place in the structure of the sentence. I believe the following sentences are examples
of such coordinate predicates:

(1) 西一跑道山里去，也在山里过了几年。

/Hsi-Er ran to mountain in go past-particle, at
mountain in pass past-particle several year./
'Hsi Er ran to the mountains and spent several years
there.'

(2) 八路军来得了，把那里给打发了。

/Eighth-Route-Army come past-particle, object-marker
this M place liberate past-particle./
'The Eighth Route Army came and liberated this place.'

(3) 西一和大春结婚了，开始幸福生活。

/Hsi-Er and Ta Chun got married, begin past-particle
happy modifier-particle life./
'Hai Er and Ta Chun got married and began their happy
life.'

(4) 我又想道自己不是学生，怕让别人看见，就立刻跑开了。

/I again think to self not is student, afraid let
people see, β then immediately run-away past-particle./
'I thought about my not being a student and was afraid
of being seen by someone, so immediately ran away.'

(In this example it is the first two predicates that are co­
ordinate; the first predicate contains an object clause:
自己不是学生。)

(5) 估计他看到的常高兴，立刻去带
zuò-xia, gěi ta dào chá.

/See him I extremely happy, immediately invite him sit-down, for him pour-out tea./

'When I saw him I was very happy and immediately asked him to sit down and got him some tea.'

(This sentence has two coordinate predicates, fēi-cháng gāo-xíng and lì-kè . . . dào chá; the latter predicate contains two coordinate verb phrases, gěng tā zuò-xia and gěi ta dào chá. Kàn-jian tā is a dependent clause.)

One reason why I do not posit an understood zero with the second predicate in the above sentences, but consider the second predicate coordinate with the preceding predicate, is that repetition of the subject changes the structure of the sentence, as evidenced by the longer pauses and different intonations which automatically accompany the insertion of the repeated subject.

In the following examples it is possible to insert an overt subject before the second predicate or verb phrase without a difference in the degree of the break between the parts. I take it, then, that, whether the subject is expressed the second time or not, these sentences contain coordinate clauses.


/We are socialist country, (we) certainly want save this M workman./
We are a socialist country; we must save this workman.

(2) Wǒ-men zhǐ rèn-shi hěn shǎo de hàn zì, (wǒ-men) hái bù néng kàn bào.
We only know very few modifier-particle Chinese character, (we) still not can read newspaper./
'We only know very few characters; we still can't read the newspaper.'

We one year want study very many thing, (we) ought-to busy./
'We have to study a lot of things in one year; we ought to be busy.'

(4) Tā bāng-zhu wǒ jiē-jué le bù shǎo wèn-tí, zài bié de fāng-mian (tā) yě hěn guān-xīn wǒ, gěi wǒ hěn duō bāng-zhu.
He help me solve past-particle not few problem, at other respect (he) also very be-concerned-about me, give me very much help./
'He helped me solve quite a few problems, and in other respects was concerned about me and gave me a lot of help.'

(5) Tā bù jiāo è-wén, (tā) zhǐ jiāo zhōng-wén.
He not teach Russian, (he) only teach Chinese./
'He doesn't teach Russian; he only teaches Chinese.'
It should be remembered that I am not saying that
there are coordinate clauses only where the subject for each clause could be overtly expressed. I am not prepared at this point to argue that there are no cases of coordinate clauses where it is obligatory to leave the subject in the second clause unexpressed. However, from what I have been able to observe so far, it seems that such a rule may be a part of the system of Chinese grammar, in which case the possibility of including a second subject overtly would become a definitive criterion for distinguishing between clauses and predicates or verb phrases.

There are cases where it is required that the subject of two succeeding clauses in one sentence be expressed in both clauses. This seems to be required when the predicate of the second clause consists only of a verb, as in

(1) Wǒ bù xué-xí, wǒ gōng-zuò.
    /I not study, I work./
    'I don't study, I work.'

(2) Wǒ qù guó, wǒ rěn-shí.
    /I go experience-particle, I know./
    'I've been there, I know the place.'

The subject seems also to be required when the predicate consists only of an auxiliary verb plus a verb, as in

Wǒ dōu dǒng le, wǒ huì zuò.
    /I all understand perfect-particle, I can do./
    'I understand them all, I can do them.'

The subject is evidently required by a ye 'also' if it points
to that subject rather than to the predicate as the new element in the statement. An example is

(A) Zhèi ge zì shì shén-mo yì-sī? (B) Wǒ méi xué guò zhèi ge zì, wǒ yě bù zhī-dào.

/(A) This M character is what meaning? (B) I not study experience-particle this M character, I also not know./

'(A) What does this character mean? (B) I've never studied this character; I don't know either.'

In the following example, the second wǒ is required because the subject of the object clause which comes between the two wǒ's is different:

Wǒ jué-de běi-jīng dà-xué hěn hǎo, wǒ yì tiān bǐ yī tiān gèng ài wǒ-men de xué-xiào le.

/I feel Peking university very good, I one day compared-to one day even-more love we modifier-particle school perfect-particle./

'I consider Peking University very good; I love our school more and more every day.'

Compare example 3, page 107, in which a subject of an object clause, wǒ 'I,' does intervene between an overt and a zero reference to the subject wǒ tóng-wū 'my roommate,' but in

10 An example with the predicate as the new element is
tā bù chōu-yān; tā yě bù hē jiǔ. /He not smoke; he also not drink wine./ 'He doesn't smoke; and he doesn't drink either.' (The second tā could be omitted.) An example with the subject as the new element is wǒ bù hē jiǔ; tā yě bù hē jiǔ. /I not drink wine; he also not drink wine./ 'I don't drink and he doesn't either.'
which the inclusion of the connectives suǒ-yǐ 'so' and jiù 'then' keeps the reference of the zero subject clear. It seems that sometimes the semantic relation between the two clauses is not of the right sort to allow for omission of the second subject. An example is


'We not can superstitiously-believe capitalist country modifier-particle medical literature, we are socialist country./

'We cannot believe the medical literature of capitalist countries; we are a socialist country.'

The question of what semantic relations are found between two clauses where the subject of the second is or may be omitted needs further investigation.

The subject of the clause which follows a short answer is usually overtly expressed. In many cases this clause is simply the full answer. An example is

(A) Nǐ yǒu huà-bào ma? (B) Yǒu, wǒ yǒu zhōng-wén huà-bào, yē yǒu à-wén huà-bào.

/(A) You have pictorial question-particle? (B) Have, I have Chinese pictorial, also have Russian pictorial./

'(A) Do you have any pictorials? (B) Yes, I have Chinese pictorials, and also Russian pictorials.'

We now come to those cases where the first of two references to a person is not a subject. Rather, it is a
modifier of the subject of the first clause; the second reference, in the second clause, may or may not be overtly expressed. The following sentences are two examples.

(1) Wǒ de liàn-xí běn-zì yòng-wán le, (wǒ) bǐ-xū mǎi jī běn xīn de.

/I modifier-particle exercise book finish-using perfect-particle, I must buy several M new modifier-particle./

'My exercise books are used up; I need to buy some new ones.'

(2) Wǒ de liàn-xí hái méi you zuò-wán, (wǒ) xiǎng zài zhèr zuò.

/I modifier-particle exercise still not have finish-doing, I would-like-to at here do./

'I haven't finished my exercise; I'd like to do it here.'

In a one clause sentence like the following, an intended second (agent) subject, nǐ 'you,' cannot be overtly expressed.

Nǐ de běn-zì dǎi lái le ma?

/You modifier-particle book ṭ carry come perfect-particle question-particle?/

'Have you brought your book?'

Since there is an understood agent subject in such sentences, wǒ may also be understood as a second subject in the first clauses of the two examples above, in which case the understood subjects in the second clauses are following the regular rule—they have the same referent as the preceding subject.
Zero reference in a succeeding sentence. -- Since the grammatical sentence in Chinese has not been adequately defined and I am relying on the punctuation to distinguish sentence boundaries, it is inevitable that there is overlap in the conditions restricting omission of a subject which apply to these cases and those already described. Thus, (a) just as the subject of a clause following a short answer is usually expressed, so also the subject of the first clause in the next sentence after a short answer is usually expressed. (b) A subject which is the new element in a sentence with 而 'also' must be expressed. (c) The subject must be expressed if it is not the same as the subject of the object clause in the preceding sentence, even though it is the same as the first subject in that preceding sentence. Thus the second 我 is necessary in

我觉的你中文说的非常流利。

我什么时候才能说得和你一样好呢？

/I feel you speak Chinese speak complement-particle extremely fluent. I what time then can speak complement-particle with you the-same good question-particle?/

'I feel that you speak Chinese extremely fluently; when will it be before I can speak as well as you do?'

(d) There are many cases where the subject is the same as that in the preceding sentence but is not left out because evidently there is not the proper semantic relation between
them. This, as I said before, needs further investigation.

An example is

Wǒ bù shì shuō de zúi hǎo de. Dàn-shì wǒ yī-dīng bāng-zhū nǐ.
/I not am speak complement-particle most good modifier-particle. But I certainly help you./
'I don't speak the best. But I certainly will help you.'

Sometimes there is an intervening clause between the two clauses with the same subject. This does not always require that the subject be expressed in the second instance. I am unable to specify just what types of intervening clauses are allowed in such cases, examples of which are the two sentences:

/I every day all attend class, ∅ not have time see friend. Today Sunday, ∅ would-like-to go they home have-a-look./
'I go to class every day; I don't have any time to visit friends. Today is Sunday and I'd like to go and visit them.'

(2) Wǒ zhà-yǐ zhǎo wǒ de péng-you; yīn-wèi rén tài duō, ∅ méi yǒu zhǎo-zhǎo.
/I intentionally look-for I modifier-particle friend; because people too many, ∅ not have find./
'I looked for my friends; because there were too many people, I couldn't find them.'

A zero subject is the rule in a question which asks a more specific question than the one just preceding it. Actually more than just the subject may be understood in the second question since these second questions follow the same patterns as short answers to Q-word questions do, with the exception of questions about the subject. The short answer patterns without verbs are not as common in second questions as those with verbs. Two examples are

(1) Nǐ zài shén-mo dì-fang xué-xí? Cháng-chang zài sù-shè lǐ xué-xí ma?
    /You at what place study? Always at dormitory in study question-particle?/
    'Where do you study? Do you always study in the dormitory?'

(2) Nǐ-men jué-de zěn-mo-yàng? Hěn máng ma?
    /You feel how? Very busy question-particle?/
    'How do you feel? Very busy?'

In other cases it is apparently optional to express the subject in the second sentence. It does not change the grammatical relation between the two sentences. Two examples follow.

(1) (A) Wǒ mǎi dōng-xì le. (B) Nǐ mǎi shén-mo dōng-xì le?
     /(A) I buy thing perfect-particle. (B) (You) buy what thing perfect-particle?/
'(A) I bought some things. (B) What did you buy?' 
(When the second sentence is spoken by a different person, 

ni is the equivalent of wo in the preceding sentence, or wo 
is the equivalent of ni, ni-men of wo-men, and wo-men of 
ni-men.)

(2) Mei tian wan-shang wo dou you shi-ji'an yu-xi di-er 
tian de yu-fa. You-shi-hour (wo) hai ke-yi san-san-bu. 
/Every day evening I all have time prepare next day 
modifier-particle grammar. Sometimes (I) also can 
take-a-walk./

'I have time every evening to prepare the next day's 
grannnar. Sometimes I also can take a walk.'

In cases like the last example where the subject is left out 
in a clause with a time word or expression, I know of no way 
of knowing whether or not the subject is understood before 
or after the time word.

This concludes the description of second references 
to persons by zero in subject position.

Other cases of zero substitutes.--There remain to be 
mentioned two situations where there is zero reference to a 
person or persons. The first occurs where zi-jy 'self' is 
used to point up a contrast between two people or groups of 
people. The omission of the pronoun is optional, but if the 
zi-jy were not used, the pronoun would have to be expressed. 
Two examples are

(1) Wo ting de hen qing-chu. Dan-shi zozi-jy de zhong-wen
shuí-píng tài dǐ, hěn duō dì-fang tīng bu dòng.
/I hear complement-particle very clear. But ø self modifier-particle Chinese level too low, very many place hear not understand. /
'I heard clearly. But the level of my Chinese is too poor, there were a lot of places I couldn't understand.'
(2) Tā zài xìn lǐ yě tán-dao le ø zì-jī de gōng-zuò.
/He at letter in also speak-of past-particle ø self modifier-particle work./
'In his letter he also spoke of his own work.'
In the other case of zero reference to a person yet to be mentioned, there is no previous overt reference necessary to keep the zero reference from being ambiguous or unclear. This is the case where nǐ or nǐ-men is left unexpressed in imperative sentences. I mention this only for the sake of completeness. Since it is really not within the scope of the subject of this study, there is no need to discuss the reasons, either for or against, recognizing a functioning zero in such sentences.
CHAPTER IV

SECOND REFERENCES TO REFERENTS OTHER THAN PERSONS

Zero Substitutes for Unspecified Objects

In the preceding chapter, the three kinds of Chinese noun phrases—definite, indefinite, and unspecified—were described. Unspecified noun phrases may be single nouns, or nouns with adjective or single word modifiers. They occur in the object position, including after coverbs and pivotal verbs, and in the complement position after verbs like shì 'be.' Goals marked by a preceding bā are never unspecified.

An unspecified inanimate noun phrase object may be left unexpressed if the same noun phrase, also unspecified, occurs just previously as an object, and if the verb the zero noun phrase is object of is the last verb in the verb phrase. (A coverb that is followed by another verb, for example, must have its object expressed.) This last verb may be followed by an indirect object, complements of frequency or duration, resultative, directional, potential, or

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Unspecified noun phrases referring to persons do occur, although rarely, as direct objects, but I have not yet been able to obtain clear evidence that they can be left unexpressed under the same circumstances as those to be described for inanimate unspecified noun phrase objects.
descriptive complements, or particles. The following are examples of unexpressed unspecified objects.

(1) (A) Xiànzài nǐ néng bù néng kàn zhòng-wén bāo?  
(B) Wǒ shì zhe kàn guò yì liǎng cì, hái kàn bù dǒng ø.  
/(A) Now you can not can read Chinese newspaper?  
(B) I try continuous-particle read experience-particle one two time ø, still read not understand ø./  
'(A) Are you able to read Chinese newspapers now?  
(B) I've tried to one or two times, but I still can't understand them.'

(2) (A) Nǐ chī-wán fàn le ba? (B) Chī-wán ø le. (A) Wǒ yě gāng chī-wán ø.  
/(A) You finish-eating rice perfect-particle question-particle? (B) Finish-eating ø perfect-particle. (A) I also just-now finish-eating ø./  
'(A) Have you finished eating? (B) Yes, I have.  
(A) I just finished eating, too.'

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2 An overt unspecified noun object and a complement of duration or a descriptive complement cannot both come after the same verb, so that when the object must be expressed, the pattern used is verb + object + verb + complement. An example is Tā shuō zhòng-wén shuō de hěn liú-li "/He speak Chinese speak complement-particle very fluent/ 'He speaks Chinese very fluently.' If the object in this sentence were not expressed, it would be given as Tā shuō ø de hěn liú-li, but this should not be interpreted to mean that an overt object could be expressed in the position marked by ø without repetition of the verb. Since the repetition of the verb would be automatic, the verb is "understood" only in the sense that if the object had been expressed, the verb would have been, too. In terms of deep and surface structures, the verb is "understood" only in the surface structure.
(3) (A) Shì bù shì nǐ cháng-chang kàn huà-jù? (B) Dùì-le, wǒ fēi-cháng yǒu-huan kàn φ.
/(A) Is not is you often see play? (B) Right, I extremely like see φ./
'(A) Do you often see plays? (B) Yes, I like to see them very much.'

Omission of the object is optional but is probably preferred in sentences like example 1, which contains the complements yì liǎng cì and bù dòng.

A further restriction on the omission of an unspecified object is that the object cannot be unexpressed in a clause modifier of a noun or in a clause which is a subject. Thus the second xiàng 'photographs' and the second zì-xíng-chē 'bicycle' in the following examples are not omitted.

/We come-across beautiful modifier-particle place then stop take photograph. I take photograph modifier-particle experience not much./
'If we came across a beautiful place, we stopped and took pictures. I don't have much experience in taking pictures.'

/I would-like-to ride bicycle go. Ride bicycle comparatively convenient./
'I'd like to go by bicycle. It's more convenient to go by bicycle.'

Usually it does not matter if the unexpressed noun is object of a different verb than that in the previous reference, as in the first of the next examples. But in some cases, as in the second of the examples, a change of verb may require the repetition of the object, to keep the meaning clear.

(1) Jīn-tiān yào yòng zì-diǎn, nǐ yě dài ǒ lái le ma? 
/Today want use dictionary, you also carry ǒ come perfect-particle question-particle?/
'We're going to use dictionaries today; did you bring one?'

(2) Wǒ sùi-rán zì-jǐ lǎn-de xiě xīn, hái xiǎ-wàng péng-you cháng-cháng lái xiě xīn. 
/I although self lazy-in write letters, still hope friend often come letter. /
'Although I myself am lazy in writing letters, I still hope that friends will often send me letters.'

To avoid ambiguity, an unspecified object is usually expressed in its second occurrence if there is a different noun object between it and the previous occurrence of the same noun. Note the two occurrences of liàn-xí 'exercise' with an intervening occurrence of kè-wén 'text' in the following example:

(A) Nǐ zhèng-zài zuò liàn-xí ma? (B) Méi yǒu, wǒ niàn
kè-wén ne. (A) Nǐ wèi-shén-mo bù kuài zuò liàn-xí?
/(A) You progressive-aspect do exercise question-particle? (B) No, I read text continuation-particle.
(A) You why not quick do exercise?/
'(A) Are you doing your exercise? (B) No, I'm reading the text aloud. (A) Why don't you do your exercise sooner?'

In the following example, however, the intervening object noun fā-yīn 'pronunciation' would make no sense as object of niàn 'read aloud,' so that it is clear that kè-wén 'text' is the understood noun.

Dà shēng niàn kè-wén kè-yǐ bāng-zhù fā-yīn, wǒ měi tiān dōu niàn yì xiǎo-shí 0.
/Large voice read-aloud text can help pronunciation, I every day all read-aloud one hour 0./
'It helps one's pronunciation to read the text aloud in a loud voice; I read it aloud for an hour every day.'

An object cannot be omitted if the adverb zhǐ 'only' occurs in the same verb phrase and refers to it (in the sense that the object is the only thing to which the agent in the subject does the action specified in the verb rather than in the sense that the action specified in the verb is the only kind of action that the subject does to the object). An example is

I do not read Chinese newspapers. I only read English newspaper. He also only read English newspaper. 'I don't read Chinese newspapers. I just read English newspapers. He only reads English newspapers, too.'

Full answers, by definition, include overt expression of the object. An example is

(A) Nǐ bù duàn-liàn shēn-tǐ ma? (B) Wǒ duàn-liàn shēn-tǐ.
(A) You not exercise body question-particle? (B) I exercise body./

'(A) Don't you do any exercise? (B) I do exercise.'

Note that shēn-tǐ in this example is still unspecified even though it is clear whose body would be involved in the action of "body-exercising."

The remaining examples illustrate the restrictions required of the first reference. As was mentioned above, it must be the same unspecified noun phrase and in object position. It must have the same modifiers as well as the same head noun, and it must include both parts of a coordinate noun phrase. In the following example, speaker (B) can only mean zhōng-wén bào 'Chinese newspapers,' not bào 'newspapers (in general)'

(A) Nǐ kàn bù kàn zhōng-wén bào? (B) Wǒ bù kàn φ.
(A) You read not read Chinese newspapers? (B) I not read φ./

'(A) Do you read Chinese newspapers? (B) No, I don't.'

Similarly, in the next example, speaker (B) can only mean
both cí-hùi 'vocabulary' and yǔ-fǎ 'grammar':

(A) Ni shén-mo shí-hou fù-xí cí-hùi hé yǔ-fǎ? (B) Wǒ wǎn-shāng fù-xí Ø.

/(A) You what time review vocabulary and grammar?
(B) I evening review Ø./

'(A) When will you review the vocabulary and grammar?
(B) I'll review it this evening.'

If the object is omitted, the previous occurrence of the noun cannot be in an indefinite NP as in the first of the next examples, or in a definite NP as in the second of these examples:


/I Saturday from friend there borrow past-particle one M novel, Sunday one day I all read novel past-particle./

'I borrowed a novel from a friend on Saturday. I "novel-read" all day Sunday.'

(If the last xiǎo-shuōr had been omitted, the meaning would be different; the understood noun would be specific--the book he borrowed from his friend.)

(2) Xiān-shēng huān-yíng dà-jīa de yī-jìān, tā jiào nǐ-men zhǔn-bèi yī-jìān.

/Teacher welcome everybody modifier-particle suggestion, he cause you prepare suggestion./

'The teacher welcomes everybody's suggestions; he wants you folks to prepare suggestions.'
Finally, the previous occurrence of the unspecified noun must also be an object. In the first of the next examples, it is in a noun modifier type of phrase; in the second, it is a complement after shì 'be.' So the objects zhōng-wén 'Chinese' and zhōng-guó diàn-yǐng 'Chinese movie,' respectively, cannot be omitted.

(1) (A) Nǐ nà běn shū shì zhōng-wén de ma? (B) Bú shì zhōng-wén de. Wǒ bù huì zhōng-wén.

/You that M book is Chinese modifier-particle question-particle? (B) Not is Chinese modifier-particle. I not know Chinese./

'(A) Is that book of yours in Chinese? (B) No. I don't know Chinese.'

(2) (A) Nǐ yào kàn de shí zhōng-guó diàn-yǐng ma?

(B) Shì, nǐ bù xǐ-huan kàn zhōng-guó diàn-yǐng ma?

/(A) You want see modifier-particle is Chinese movie question-particle? (B) Yes, you not like see Chinese movie question-particle?/

'(A) Is it a Chinese movie that you want to see? (B) Yes; don't you like to see Chinese movies?'

In the second example, if the second zhōng-guó diàn-yǐng had been omitted, the listener would interpret the sentence to mean that a specific object was understood, namely, wǒ yào kàn de diàn-yǐng 'the movie I want to see,' i.e., the reference would be back to the subject of the first sentence.

Unspecified NP complements after shì may be omitted
if the same unspecified NP is found as a complement of the
same type in the immediately preceding clause. An example is

Wǒ shì zhōng-guó rén, kě-shí wǒ pénɡ-you bú shì ŋ. Tā
shì rì-běn rén.

/I am Chinese man, but I friend not is ŋ. He is Japan
man./

'I'm a Chinese, but my friend isn't. He's a Japanese.'

Substitutes for Definite Subjects or Objects

Zero Subjects

The rules for use of zero in a second reference to
definite non-human objects or concepts in subject position
are essentially the same as for zero subjects referring to
persons. It does not matter whether the subject is related
to the verb in the predicate as a goal or not. If the first
subject is a goal, there may or may not be a second subject
which is an agent. Zero may be used where the reference is
the same as that of the preceding subject, unless, for
example, the semantic relation between the two succeeding
clauses or sentences does not allow it, or the second subject
is the new element in a clause with yě 'also.' The preced-
ing subject may be definite or indefinite, but indefinite
subjects are usually only found after pivotal verbs, includ-
ing yǒu 'there is.' The reference made by the zero substi-
tute is, of course, definite. Some examples follow.

(1) Wǒ de zuò-wèi bǐ-jīào yuǎn, ŋ zài lóu-xià shí-wǔ pái.
/I modifier-particle seat comparatively far, \( \emptyset \) at downstairs fifteenth row./

'My seat was rather far back, in the fifteenth row.'

(2) Zhèi ge gē wú-xiàn-diàn tiān tiān bō-sòng, \( \emptyset \) jiào

"shè-hùi-zhŭ-yī hǎo."

/This M song radio day day broadcast; \( \emptyset \) is-called

"socialism good"./

'They broadcast this song on the radio every day; it's called "Socialism is Good."'

(3) Zhèi kè yǔ-fā bī-jiǎo fù-zá, \( \emptyset \) nǐ zhăng-wò le ma?

/This lesson grammar comparatively complicated, \( \emptyset \) you master perfect-particle question-particle./

'This grammar lesson is rather complicated; have you mastered it?'

(4) Wŏ de liàn-xì hái méi you zuò-wán, \( \emptyset \) wŏ xiāng zài zhèr zuò.

/I modifier-particle exercise still not have finish-doing, \( \emptyset \) I would-like-to at here do./

'I still haven't finished doing my exercise; I'd like to do it here.'

(5) Zhèi fēng xīn shì liǎng ge xīng-qī yī-qíán jǐ de.

\( \emptyset \) jīn-tiān zǎo-shāng jǐ dào le.

/This M letter is two M week before send modifier-particle. \( \emptyset \) Today morning send arrive past-particle./

'This letter was sent two weeks ago. It arrived this morning.'
(6) Zhèi ge xì fēi-cháng hǎo, ō yăn-yuán yǎn de hěn hǎo. ō Nǐ zhēn yīng-gāi qù kàn-kàn.

/This M play extremely good, ō actor act complement-particle very good. ō You truly ought-to go have-a-look./

'This play is extremely good; the actors act very well. You really ought to go and see it.'

(7) (A) Zhèi běn zá-zhī shì zhōng-wén de ma? (B) Bù shì zhōng-wén de, ō shì è-wén de.

/(A) This M magazine is Chinese modifier-particle question-particle? (B) Bù Not is Chinese modifier-particle, ō is Russian modifier-particle./

'(A) Is this magazine in Chinese? (B) No, it's in Russian.'

(8) Zhèi ge zì niàn shén-mo? ō Shì bu shì niàn zhī?

/This M character read what? ō Is not is read zhī?/

'How do you pronounce this character? Is it zhī?'

(9) Yǒu sān jiàn bù néng chuān, ō yǐ-jīng chuān pō le.

/Have three M not can wear, ō already wear torn perfect-particle./

'There are three that cannot be worn—they've already been worn ragged.'

(10) Wǒ yì-wéi zhè zhī bǐ yǐ-jīng yòng-wǎn le, dàn-shí ō hái kē-yǐ yòng, nǐ kàn.

/I think-incorrectly this M pen already used-up perfect-particle, but ō still can use, you see./
'I thought this pen was used up, but, see, it can still be used.'

(11) Zhèi ge bǎo-gào suí-rán yǒu-yì-diār cháng, dàn-shì 0
gěi wǒ de bāng-zhù hěn dà.
/This M announcement although a-little long, but 0
give me modifier-particle help very great./
'Although these announcements were a little long, the
help they gave me was great.'

Notice the following points about these examples.

In example 1, Wǒ de zuò-wéi is not a goal subject in either
of the clauses; in example 2, Zhèi ge gēr is a goal subject
in the first clause, but not in the second; in example 3,
Zhèi kē yú-fā is a goal subject in the second clause; in
example 4, Wǒ de liàn-xǐ is a goal subject in both clauses.
In all of these cases where the subject is a goal, the agent
is expressed also, except in the first clause of example 4.
Examples 5 and 6 involve two succeeding sentences, rather
than clauses, with the same subjects. In example 6, Zhèi ge
xǐ is an understood subject in the second clause of the first
sentence as well as in the second sentence. The first
clause in the answer in example 7 follows the rules for a
short answer, but the omission of the subject in the next is
explained by the rules being exemplified. In example 8 we
have an example of a second, more specific, question. The
first subjects in all the above examples have been definite.
In example 9 the first subject is indefinite and functions
both as object of the pivotal verb yǒu and as subject of bù néng chuān. Example 10 illustrates a preceding subject which is a subject of an object clause. Example 11 illustrates a second subject which is subject of a clause modifier within the main subject. It is less likely that a second reference to a person that is a subject of a modifying clause would be represented by zero; a pronoun would be used.

The use of zero in the above examples is pretty much obligatory since the pronoun tā is never used as subject, unless, perhaps, as subject of an object clause, and an NP would be natural only as the subject of a clause following a short answer, as in example 7. Full answers, of course, regularly use an NP as subject.

A goal subject and an agent subject may both be represented by zero in one clause. An example is

Zhèi ge diàn-yǐng wǒ yǐ-jīng kàn guò liǎng cì le, Ø Ø bù xiǎng zài kàn le.

/This M movie I already see experience-particle two time perfect-particle, Ø Ø not would-like-to again see

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3 Chao, op. cit., p. 854, says, "The use of tā in written bairhuah is completely unrestricted as to scope of reference and position in the sentence." The examples of this tā in my corpus, however, do not seem to deviate from the ordinary use in the spoken language. An example of tā as subject of an object clause is Zhèi jiàn mào-yī kàn-qí-lái gēn xīn de yǐ-yàng. Wǒ zhēn méi you kàn chū tā shì jǐu de lái. /This M sweater seem with new modifier-particle same. I really not have see out it is old modifier-particle come. / 'This sweater looks like it's new. I certainly didn't realize it was an old one.'
perfect-particle./
'I've already seen this movie twice; I don't want to see it again.'

There are, in addition, clauses with an obligatory zero subject, which follow an indefinite object. The zero subject has the same reference as the preceding indefinite object. An example is

Wǒ zuò guò yì liàng gōng-gōng qì-chē 0 lǎo tíng lǎo tíng.
/I sit experience-particle one M public bus 0 always stop always stop./
'I have been in a bus which kept stopping.'

This example is from Chao, op. cit., p. 170, where Chao classes it with sentences with pivotal verbs whose objects also function as subject of the following verb phrase. However, there are several reasons for distinguishing examples like that just cited and true pivotal constructions with verbs like jiào 'make (someone do something)' or pài 'send (someone to do something).'. First, there seem to be no restrictions as to the verb in the first clause of this type of sentence whereas pivotal verbs are quite limited in number. Secondly, the object of this verb is indefinite, whereas the object of a pivotal verb may be definite, indefinite, or unspecified. Finally, the verb phrase following this indefinite object does not have to be in the same sentence. Note this example from DeFrancis, op. cit., p. 429.
He saw that there was a book called Chinese Literature. It was written by a Far East University professor.

Finally, there are zero subjects which refer back to a preceding unspecified object of the verb 你. An example is

(A) 你有字典吗?  (B) 有. (A) 世界上有一个字典吗?

/(A) Do you have a dictionary? (B) Yes. (A) Is it an English-Chinese dictionary?

An alternative for the last sentence of this example could be:

(A) 你不能把字借给我用一次吗?

/(A) Can you lend it to me for a minute?

In other words both goal and non-goal subjects may refer back to an unspecified object of 你.

There is no need to restate the arguments for positing zero subjects in these cases. They are the same as those for zero subjects used in second references to persons, dealt with in the preceding chapter.
Zero Objects

Definite non-person goals that are objects rather than subjects can also be represented by a zero substitute. The conditions are that the previous reference to the same thing be made by an immediately preceding definite or indefinite NP in object position. The verbs for the two objects referring to the same thing do not need to be the same.

Examples are

(1) Wǒ hái xiǎng mǎi yī běn jiù zá-zhī. Dàn-shì méi you mǎi-zháo 0.
   /I still want buy one M old magazine. But not have succeed-in-buying 0./
   'I also wanted to buy an old magazine. But I couldn't get it.'

(2) (A) Nǐ hùi zuò hòu-biār de nǐ sì ge ma? (B) Wǒ dōu dōng 0 le, wǒ hùi zuò 0.
   /(A) You can do last modifier-particle that four M question-particle? (B) I all understand 0 perfect-particle, I can do 0./
   '(A) Can you do those last four (questions)? (B) I understand them all; I can do them.'

(3) (A) Nǐ fù-xí le cóng-qían de cí-huí méi you? (B) Wǒ fù-xí le 0 yì biàn. (A) Fù-xí 0 yì biàn bú gòu. Nǐ zài fù-xí 0 yì biàn. Fù-xí 0 de shí-hour yào dà shēngr niàn 0.
/(A) You review past-particle former modifier-particle vocabulary not have? (B) I review past-particle ∅ one time. (A) Review ∅ one time not enough. You again review ∅ one time. Review ∅ modifier-particle time want big voice read-aloud./
'(A) Have you reviewed the old vocabulary? (B) I reviewed it once. (A) Once is not enough. Review it again. When you review it, read it aloud in a loud voice.'

/I still would-like-to buy some things. All finishto buy past-particle ∅ I then return go./
'I would like to buy some more things. I won't go home until I've got them all bought.'

(5) Huí chàng guó-gēr de rén ké-yì zhàn zài hòu-biān, bú huí chàng ∅ de yào dào qián-miàn lái xué-xī.
/Can sing national-anthem modifier-particle person can stand at back, not can sing ∅ modifier-particle want to front come practise./
'The people who know the national anthem can stand at the back, while those who don't know it come to the front and practise it.'

The following points should be noted in the above examples. Examples 1 and 4 illustrate a first reference made by an indefinite NP. All the others have a definite NP in
the first reference. Examples 2 and 3 have more than one zero object referring to the same thing. A zero object can thus be the preceding reference which determines the meaning of the following zero substitute. It was noted previously that unspecified objects represented by zero do not occur in clauses modifying nouns or in clauses functioning as subjects. Definite objects represented by zero can occur in such clauses, however. 毛旭 ø 夷 biàn, in example 3, is a subject clause with zero object. In example 5, 毛 hùi chàng ø de illustrates the use of a zero object in a modifying clause (the head noun, which is also understood, is, of course, the agent rén). Finally, examples 2 and 4 illustrate the use of dōu 'all' in reference to zero objects. If overtly expressed, these objects would have to be "inverted" to a position before the dōu. But this does not mean that the object thereby becomes a goal subject. There are goal subjects also referred to by dōu but their position in relation to an agent subject, if expressed, is different. The goal subjects precede the agent subjects. The inverted objects follow. Two examples are

(1) Liăng běn wǒ dōu kàn le.
/Two M I all read past-particle./
'I've read both books.'

(2) Wǒ liăng běn dōu kàn le.
/I two M all read past-particle./
'I've read both books.'
In sentence 1, liǎng běn is a goal subject; in sentence 2, it is an inverted object.\footnote{A related question concerns the function of an agent which follows a goal subject. Is it an agent subject—i.e., is wǒ the same in both sentences 1 and 2—or is it an agent but not a subject? In this study I have considered such agents as subjects. The use of zero substitutes for agent subjects seems to be the same whether or not they are first or second subjects.}

There are two cases worth noting where, according to the rules for zero subjects and objects, a second reference to a thing or concept must be overtly expressed if the intended structure in terms of subjects and objects is to be clear. In the one case, the first reference is an object and the second is a subject. If the subject were a goal subject and were left unexpressed, the listener would understand that an object had been left unexpressed rather than a goal subject. In the other case, the first reference is a subject and the second an object. If the object were left unexpressed, the listener would understand that a goal subject had been left unexpressed rather than an object. The following example has a first reference that is an object, a second that is a subject (but not a goal subject), and a third that is an object.

Shāng xīng-qī wǒ kàn le nǐ gěi wǒ de nèi běn huà-bào.
Nǐ gěi wǒ de nèi běn huà-bào hěn yǒu-yì-si, bù huì zhōng-wén de rén yě néng kàn nèi běi huà-bào.

\footnote{A related question concerns the function of an agent which follows a goal subject. Is it an agent subject—i.e., is wǒ the same in both sentences 1 and 2—or is it an agent but not a subject? In this study I have considered such agents as subjects. The use of zero substitutes for agent subjects seems to be the same whether or not they are first or second subjects.}

/Last week I read past-particle you give me modifier-
particle that M pictorial. You give me modifier-particle that M pictorial very interesting, not know Chinese-language modifier-particle person also can read that M pictorial./
'I read that pictorial you gave me last week. It was very interesting; even people who don't know Chinese can read it.'

All three references to \( \text{mī bèi wǒ de nèi běn huà-bào} \) have to be expressed overtly if the structures of the sentences are to be kept as they are.

Tā as Object

I am not able to give a definitive description of the factors involved in the use of tā in object position. However, it seems that the preceding reference to the same object must be quite close and the reference must be to something concrete, not abstract. "Concrete" references include things like songs as well as physical objects, but not things like weather, periods of time, or places (unless personified), or references to kinds of things. There is no distinction between singular and plural in the use of tā. Both the following examples use tā where the previous reference to the same thing is a subject.

(1) Wǒ de péng-you shuō zhèi jiàn lán sè de hǎo, wǒ jiù bā tā mài lái le.

/I modifier-particle friend say this M blue color
modifier-particle good, I then object-marker it buy come past-particle./
'My friend said that this blue one was good, so I bought it.'

(2) Zì-jǐ de rǔ-shǔi bú gòu, wǒ-men yòng dòu-fu jiǎng dài tā.
/Self modifier-particle milk not enough, we use bean-curd milk take-the-place-of it./
'Her own milk was not enough, so we used bean-curd milk in its place.'

An example where a pronoun referring to the subject is required because it is the object of a coverb is

Zhè jìàn māo-yī měi nián chūn-tiān chuān wán le yī-hou, yào xiān bā tā xǐ gān-jīng zài shōu-qí-lái.
/This M sweater every year spring wear finish past-particle after, want first object-marker it wash clean then put-away./
'Every year in the spring, when you've finished wearing this sweater, you must wash it clean before putting it away.'

5 Evidently, at least in a certain style of the spoken language, even the object of bā, or gēi when used like bā, may be omitted. Chao, op. cit., pp. 443-45, gives examples, one of which is xǐn xiě wàn le, qǐng gēi (~bā) (tā) chāo le jǐ-zǒu ba. /Letter write finish perfect-particle, please object-marker (it) copy past-particle send-away suggestion-particle./ 'The letter's finished. Please copy it and send it off.'
Chao points out that if tā as object is included where the object could have been left unexpressed, it may imply something about the speaker's evaluation of the object. His example is

我看了完了报纸。你还要看 (他) 吗？
'I've finished reading the newspaper. Do you want to read it?'

Chao says, "If tā is expressed . . . it may even have the implication 'Do you want to read that kind of stuff?'" 6

Transitive Verbs

It is now appropriate to raise the question whether or not transitive verbs ever occur without goals (goals include goal subjects and goal objects). In many of the places where, on the surface, they appear not to have goals, there is a zero substitute -- a goal, either unspecified or definite, is clearly included in the structure of the sentence. If we did not take zero substitutes into account, we would have to agree with the usual definition of transitive verbs in Chinese, namely, that they are verbs that may take a goal. We have already observed that there are often places where no definite agent subject is specified and it

was concluded that in these places an indefinite agent is not understood. The question, then, is whether or not there are occasions when no goal occurs in the structure of a clause, the speaker having no definite goal in mind to mention. The answer is "No"—except in a very few restricted types of situations.

For one thing, as has been explained, unspecified objects occur frequently. Chao has pointed out that, sometimes, to leave an object unexpressed implies that the object is definite, whereas if it is indefinite, the object must be expressed. Thus Bié shuō huà /Don't speak word/ means "Don't talk" but Bié shuō means "Don't say it." 7

In some situations in which this last sentence is used, what it is that is not to be said may not be specified in the linguistic context but may only be obvious from the extra-linguistic context. Such cases seem to be evidence for saying that a verb may not have an object (a definite object) even though transitive. However this is not where the real problem lies—the listener reacts to that sentence as though there were an object there, just as much as an English speaking person reacts to the sentence, "Don't say it," by realizing that some specific object is meant. 8

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7 Ibid., p. 943.

8 We thus have an example in Chinese of the kind of zero referred to in n. 3, page 6, which signals a meaning of its own accord. The zero object signals that the object is definite and should be understood by the listener.
real question is to what extent must a linguistic explanation of the sentence account for what the reference in the non-linguistic universe is that a substitute—whether zero, or overt like the English it—is referring to. This question is not our concern here.

There are certain verbs which can be used like an intransitive verb, and yet also can be used transitively. These are to be distinguished from those regularly used transitively. An example is hän. Bié hän means 'Don't shout,' not 'Don't shout it.' On the other hand, hän can be used transitively as in hän kôu-hâo 'shout slogans.' Jiăng is another verb that is sometimes intransitive, but the meaning is slightly different from the meaning of the transitive jiăng. The intransitive meaning is 'lecture, teach, explain'; the transitive meaning is 'say, tell.' Such verbs belong to two different subclasses of verbs, intransitive and transitive.

Transitive verbs always have a goal except in two types of special situations. One is an idiomatic use. An example is jiē-fâng, which in its usual meaning is 'to liberate' and requires a goal, but which is used without a goal to refer to the "liberation" completed by the Chinese Communists in 1949. The other place where transitive verbs may be found without goals is in clauses where the goal meant is unspecified and where the verb is followed by a complement. (Of course, more often than not, the object will be expressed by use of the pattern: verb + object + verb +
complement.) In such cases, the object that is left unexpressed is one that is the goal commonly and regularly found with that verb. Furthermore, in two examples of this from my corpus, the noun appears in the preceding context, but in a definite NP. Since a zero substitute for an unspecified object is regularly understood only on the basis of a previous occurrence of an unspecified NP, not a definite NP with that noun as head, we must say that the unspecified objects are "understood" in these sentences in a sense different from that intended throughout this study. One of the examples is

Wǒ-men dōu bā zùi hǎo de yī-fú chuān chu-lai le, nǚ tóng-xué chuān de tè-bié piào-liáng.

'We all came out in our very best clothes; the girls were dressed especially prettily.'

Finally, there are places where certain apparently transitive verbs are used reduplicatively with no goal either expressed or implied in the linguistic structure of the sentence. It appears that this usage is not possible with all transitive verbs. For example, bù 'step' could never be omitted in sàn-sàn bù 'take a walk.' Two verbs that do occur in reduplicated form with no goal are kàn 'see' and tán 'chat.' Examples are
(1) *Zhēi yí cì nǐ kě-yì huí jiā kàn-kān le.*
   /This one time you can return home have-a-look perfect-particle./
   'This time you can go home for a visit.'

(2) *Tā yào hé dà-jīā tán-yī-tan.*
   /He want with everybody have-a-talk./
   'He wants to have a talk with everybody.'

It is clear that a large number of Chinese verbs regularly require a goal, either overt or zero. This means that they are transitive in a much stricter sense than has been admitted up till now by students of Chinese grammar. Further implications of this fact will be discussed in the next chapter.

Noun Phrases in Second References

Definite NP's

NP's in second references are definite in reference. NP's that are always definite in reference are PrN's (proper nouns), and NP's with modifiers of the following two patterns: D-M (with or without other modifiers), and __de. "__de" as used here refers to all of the following patterns: NP-de, P-de, Nt-de, Np-de, Clause-de, and A-de. Nt and Np, in addition to referring to time words and place words respectively, are used here to refer to phrases that occur with the same functions as well.

NP's with modifiers containing a Nu not preceded by a
D are indefinite in reference unless in a second reference (see example 10, below).

NP's of the pattern (A)(Mod)N may be definite or unspecified. They are definite only under certain conditions as follows. (a) If all of the class represented by the NP are referred to, the NP is definite. An example is

(1) Hán zì hěn bù róng-yì xué.

/Chinese character very not easy study./

'Chinese characters are very difficult to learn.' 
All Chinese characters are being referred to. (b) Sometimes the linguistic or extra-linguistic context shows that the meaning is definite. Just as we say "The postman hasn't arrived yet" since there is only one postman in one's little world of the home and neighborhood, so Chinese can use an unmodified NP with definite reference in such situations. (c) In the following example, what group of students is referred to is clear from the context, so the unmodified noun xué-sheng 'students' is definite:

(2) Wǒ-men jiā páng-biār bān le yī ge xiǎo-xué. Xué-sheng dōu shī di-zhū jiā de hái-zǐ.

/We home beside set-up past-particle one M primary-school. Student all are landlord home modifier-particle child./

'They established a primary school next to our house. The students are all children of landlords.'

(d) Many sentences in Chinese have two subjects, the second
of which, although an unmodified noun, is definite by virtue of the limitation in reference put on it by the first subject. An example is the following sentence with subjects wū-zi 里 'in the room' and kōng-qi  the air.'

(3) Wū-zi lí kōng-qi fēi-chàng hǎo.

/Room inside air extremely good./

'The air in the room was extremely good.'

(The preceding context makes it clear that wū-zi is definite, referring to a particular room.) (e) An interesting stylistic feature of the first sentence of some stories is the use of an unmodified noun which has to be definite according to the grammar of the sentence but which is not identified by any preceding context or by an extra-linguistic context common to the speaker and listener. Thus, in the following example of a first sentence in a story, it only becomes apparent what train is referred to when the reader gets to the end of the sentence. All introductory explanation as to who the writer is, where he is, and how he got there, is simply omitted.

(4) Huǒ-chē màn-mār-de tíng-xià-lái le, wǒ de xīn tiào de gèng kuài le; zhōng-yú dào le xīn zhōng-guó de shǒu-dū--bèi-jīng le.

/Train slowly stop past-particle, I modifier-particle heart jump complement-particle even-more quick perfect-particle; finally arrive past-particle new China modifier-particle capital--Peking perfect-particle./
The train slowly came to a stop. My heart was jumping even more quickly. At last I had arrived in the capital of New China, Peking.'

(f) In other cases, NP's of the pattern (A)(Mod)N are definite because they are functioning as second references. See examples 5, 11, and 13 through 16, below.

Unspecified NP's as First References

When an unspecified NP is the first of two references, the second may either repeat the NP without adding modifiers, as in example 5, or may add modifiers of the D-M or _de type, as in 6 and 7. Note that in example 7 the _de modifier wǒ de 'my' represents information presented in the preceding sentence containing the unspecified object. If the second reference in example 6 had a _de modifier, it would be jīn-tiān (kāī) de huì /today (open) modifier-particle meeting/ 'the meeting (being held) today' (cf. the first clause, jīn-tiān kāī huì).

/We afternoon at auditorium listen-to announcement. Two o'clock half announcement start./
'We listened to announcements in the auditorium this afternoon. They began at two-thirty.'

(6) (A) jīn-tiān kāī huì, nǐ zhī-dào le ma? (B) zhī-dào le. Dàn-shí wèi-shén-mo kāī zhèi ge huì, wǒ hái bù
Tai qing-chu.

/(A) Today open meeting, you know perfect-particle question-particle? (B) Know perfect-particle. But why open this M meeting, I still not too clear./

'(A) Did you know that we are having a meeting today? (B) Yes, but why we are, I'm not so clear about.'

(7) Wo hai you hai-zi; jiang-lai wo de hai-zi ye yao sheng hai-zi.

/I still have child; in-the-future I modifier-particle child also want bear child./

'I still have children; in the future my children will also have children.'

Indefinite NP's as First References

An indefinite NP always includes a modifier. If the modifier is the Nu-M substitute type, e.g., hén duō 'very many,' it must be dropped entirely in a second reference. Either the second reference will have no modifier or else it will have a modifier of the D-M or _de type. The regular Nu-M type of modifier found in an indefinite NP would be retained if the second reference were of the pattern D-Nu-M-N. In such cases numbers above yi 'one' are retained (example 8) but yi is usually dropped so that the modifier is the D-M type (example 9).

(8) Ta zhu zai liang zuo da shan de bei-bi. Zhei liang zuo shan you qi w'an chi gao.
He lived at two large mountains north. This two mountains have seven ten-thousand foot high.

'He lived north of two large mountains. These two mountains were seventy thousand feet high.'

(9) Wǒ gē-ge gěi wǒ xiě le yī fēng xīn. Zhèi fēng xīn shì liǎng gè xīng-qī yī-qián jì de.

'My brother to me write past-particle one letter. This letter is two week before send modifier-particle.'

'My brother wrote me a letter. This letter was sent two weeks ago.'

The Nu-M modifier pattern may be found in a second reference at least when the head noun is understood and the emphasis is on the number. In the following example of this it is liǎng běn that is definite; yī běn is indefinite in both occurrences.

(10) (A) Zhèi liǎng běn xiǎo-shūò shì zhōng-wén de ma?
    (B) Bù, yī běn shì yīng-wén de, yī běn shì zhōng-wén de. (A) Liǎng běn nǐ dōu kàn le ma?

 /(A) This two novel are Chinese modifier-particle question-particle? (B) No, one is English modifier-particle, one is Chinese modifier-particle. (A) Two you all read past-particle question-particle?/

' (A) Are these two novels in Chinese? (B) No, one is in English, and the other in Chinese. (A) Have you read them both? '
N alone (example 11) or _de-N may substitute for Nu-M-N, in a second reference.

(11) Dà lù shāng guò lài le yī liàng chē, chē shāng zuò zhe yī ge rén.

/Big road on pass come past-particle one M cart, cart on sit continuous-particle one M man./

'A cart passed by on the main road. On the cart sat a man.'

Example 12 has both _de and D-M modifiers in the second reference.

(12) (A) Wǒ kàn le yī ge péng-you. (B) Nǐ de zhèi ge péng-you shì xué-shēng ma?

/(A) I see past-particle one M friend. (B) You modifier-particle this M friend is student question-particle?/

'(A) I saw a friend. (B) Is this friend of yours a student?'

Definite NP's as First References

NP's of the pattern (A)(Mod)N may be second references, whether the first reference is of the same pattern (examples 13 and 14) or the first reference has a modifier typical of definite NP's: D(Nu)M (example 15) or _de (example 16).

(13) Xuě yuè xià yuè dà, yě yuè shēn le. Wǒ-men zài xuě lǐ zǒu de hěn màn.

/Snow correlative come-down correlative great, also
correlative deep perfect-particle. We at snow in walk complement-particle very slow./
'The more it snowed the heavier it got and the deeper it got. We walked very slowly in the snow.'

(14) Zài zī-běn-zhū-yī guó-jí à lǐ, shāo shāng de dāng-rán shì láo-dòng rén-mín. Zī-běn-zhū-yī guó-jí à hū xiǎng chu gè zhǒng fāng-fā lái jiù láo-dòng rén-mín ma?
/At capitalist country in, burn wound modifier-particle of-course is labor people. Capitalist country would think out every kind method come save labor people question-particle?

'In capitalist countries, the people who get burned are of course the laboring people. Would the capitalist countries think up every possible way of saving laboring people?'

(The point of this example is the two references to capitalist countries.)

(15) Bìe wànɡ le zhèi liǎnɡ zuò shān shī yòu gāo yòu dà a!
Shān shānɡ de shí-tou, dōu bān dào nǎr qù a?
/Don't forget past-particle this two M mountain are both high and large exclamation-particle! Mountain on modifier-particle stone, all move to where go question-particle?

'Don't forget that these two mountains are both high and large. Where are you going to move the stones on the mountains to?!'
(16) Tā-men shàng kè de jiào-shì zài sù-shè páng-biār. Xià kè de shí-hour, tā-men dōu zài jiào-shì wài-biār xiū-xí. /They attend class modifier-particle classroom at dormitory beside. Dismiss class modifier-particle time, they all at classroom outside rest./ 'The classroom they attend class in is beside the dormitory. When they get out of class, they all rest outside the classroom.'

In some cases where the first reference has modifiers typical of definite NP's, the second reference retains them, as in the following examples.

(17) (A) Zhèi ge huà-jù zěn-mo-yàng? (B) Hěn hǎo, dà-jiā dōu hěn xǐ-huan kàn zhèi ge huà-jù. /(A) This M play how? (B) Very good, everybody all very like see this M play./ '(A) What's this play like? (B) Very good, everybody very much likes to see it.'

(18) (A) Běi-jīng dà-xué de dūi-wu nǐ kàn-jian méi you? (B) Kàn-jian le. (A) Nèi tiān wǒ yě zài běi-jīng dà-xué de dūi-wu lǐ-biār. /(A) Peking university modifier-particle troop you see not have? (B) See past-particle. (A) That day I also at Peking university modifier-particle troop in./ '(A) Did you see the Peking University troop? (B) Yes, I did. (A) I was in the Peking University troop that day, too.'
(19) Shàng xīng-qī wǒ kàn le nǐ gěi wǒ de nèi běn huà-bào. 
Nǐ gěi wǒ de nèi běn huà-bào hěn yōu-yí-sì. 

/Last week I read past-particle you give me modifier-particle that M pictorial. You give me modifier-particle that M pictorial very interesting./  
'I read the pictorial you gave me, last week. It was very interesting.'

Example 19 had both types of modifiers, _de and D-M, and both were retained. Sometimes, either one or the other is omitted in the second reference, as in examples 20 and 21.

(20) Nǐ mǎi de nèi zhǒng zì-dìǎn běn hǎo, mǎi nèi zhǒng zì-dìǎn de rén hěn duō. 

/You buy modifier-particle that kind dictionary very good, buy that kind dictionary modifier-particle person very many./  
'The kind of dictionary you bought is very good; many people buy that kind of dictionary.'

(21) (A) Nǐ de zhèi ge péng-you shì zuò shén-mo gōng-zuò de? (B) Tā jiāo è-wén. Wǒ péng-you jiāo è-wén de fǎng-fǎ hěn hǎo. 

/(A) You modifier-particle this M friend is do what work modifier-particle? (B) He teach Russian. I friend teach Russian modifier-particle method very good./  
'(A) What work does that friend of yours do? (B) He teaches Russian. My friend's method of teaching
Russian is very good.'
(The 聰 spoken by speaker (B) is equivalent to the 聢 de spoken by (A) in this example.) In still other cases where the NP in the first reference has a modifier typical of definite NP's, we find this modifier replaced by a modifier of the D-M pattern in the second reference. Examples are

(22) Dì-yì jié-duàn shì yǔ-yǐn hé yǔ-fā, zài zhè gé jié-
duàn lǐ yǔ-yǐn gēn yǔ-fā yì-yàng de zhōng-yào.
/First section is phonetics and grammar, at this M section in phonetics with grammar same modifier-
particle important./
'The first section is phonetics and grammar. In this section phonetics is as important as grammar.'

(23) Gònghéng lí dào yí-hé-yuán de lù shang, liǎng biār
yǒu hén duō xué-xiào, běi-jīng dà-xué yě zài zhè tíáo
lù shang.
/From city in to Yi-Ho-Park modifier-particle road on, two side have very many school, Peking university also at this M road on./
'On both sides of the road from the city to Yi-Ho Park are many schools; Peking University is also on this road.'

Another example of essentially the same type is the next in which the first NP is a PrN. The inner construction of the PrN is Mod-N and in the second reference D-M replaces Mod.

(24) (A) Shǒu-dū jù-chǎng nǐ yě qù guo ma? (B) Yě qù guo.
Ngôi ge jù-chǎng yóu xīn yóu dà.

/(A) Capital theatre you also go experience-particle question-particle? (B) Also go experience-particle. That M theatre both new and big./

'(A) Have you also been to Capital Theatre? (B) Yes, I have. That theatre is both new and large.'

Sometimes the Mod in the PrN is just dropped, as when dǎng 'Party' is used to refer to gòng-chǎn-dǎng 'the Communist Party.' More often than not a PrN is simply repeated in a second reference. A stylistic variation is to use a completely different NP in a second reference where the first is a PrN. An example is


/I feel can at Peking university study is very lucky modifier-particle, I one day compared-to one day even-more love we modifier-particle school perfect-particle./

'I feel that to be able to study at Peking University is a very lucky thing; I love our school more every day.'

Questions concerning identification are often of the pattern: _de-shēn-mo-N. The N is required after shēn-mo 'what' and so not expressed in the subject. A second reference to such a subject has this N as a head, and, as modifier, either the _de from the question or a D-M. Two examples are
(26) (A) Xia-biar shì shén-mo jié-mù? (B) Xia-biar de jié-mù shì chăng gēr.

/(A) Next is what program? (B) Next modifier-particle program is sing song./

'(A) What program comes next? (B) The next program is singing.'

(27) (A) Chăng de shì shén-mo gēr? (B) Zhèi ge gēr jiào "shè-hùi-zhǔ-yì hǎo."

/(A) Sing modifier-particle is what song? (B) This M song is-called "Socialism good."/

'(A) What song is it being sung? (B) This song is called "Socialism is good."'

Cases where the NP of the first reference is (A)(Mod)N and the second reference adds a modifier have yet to be illustrated. Examples are


/I buy past-particle one M Chinese-English dictionary. Bookstore in modifier-particle comrade say, buy that kind dictionary modifier-particle people very many. I still would-like-to buy one M magazine, but not have succeed-in-buying, because that M bookstore not sell magazines./

'I bought a Chinese-English dictionary. The comrade
in the bookstore said that many people buy that kind of dictionary. I also was thinking of buying a magazine but I didn't get it because that bookstore doesn't sell magazines.'

(The two references to the bookstore are the point in this example.)

(29) (A) Wǒ zài tú-shū-guǎn lǐ xué-xí. (B) Nǐ-men tú-shū-guǎn zài shén-mo dì-fāng?

/(A) I at library in study. (B) You library at what place?/

'(A) I study in the library. (B) Where is your library?'

NP's with or without A and Mod Modifiers

The A and Mod modifiers in NP's do not serve to make an NP definite. They may be found in unspecified NP's which are first references (example 30), in indefinite NP's which are first references (example 31), or in definite NP's which are first references (examples 14, 32 to 34). In the second references these A or Mod modifiers may be retained, as in examples 14 and 32, or omitted, as in examples 30, 31, 33, and 34.

(30) Yǐn-wèi wǒ kàn zhōng-wén bào hái kàn bu dà dōng, suǒ-yǐ wǒ de péng-you bā bào shāng de xīn-wén jiāng gěi wǒ tīng.

/Because I read Chinese newspaper still read not very
understand, so I modifier-particle friend object-marker newspaper on modifier-particle news relate for me listen./
'Since I can't read the Chinese newspaper very well, my friend tells me the news in the newspaper.'

(31) (A)  Yöu èr-shí ge sū-lián xué-sheng. (B) Jǐ ge xiān-sheng jiāo zhèi-xīē xué-sheng?
/(A) There are twenty M Russian student. (B) How-many M teacher teach these student?/
'(A) There are twenty Russian students. (B) How many teachers teach these students?'

(32) (A) Nèi ge xīn tóng-zhī shì shéi? (B) Nèi ge xīn tóng-zhī shì wǒ de péng-you. Tā de míng-zì jiāo zhāng-yǒu-wén. (A) Nèi ge xīn tóng-zhī zěn-mo-yàng?
/(A) That M new comrade is who? (B) That M new comrade is I modifier-particle friend. He modifier-particle name is-called Chang-You-wen. (A) That M new comrade how?/
'(A) Who is that new comrade? (B) That new comrade is my friend. His name is Chang You-wen. (A) What is that new comrade like?'

(33) (A) Wǒ xiāng bā zhèi liǎng zuò dà shān bān-kāi, yǐ-hòu jiù hǎo le. (B) Bié wàng le zhèi liǎng zuò shān shì yòu gāo yòu dà a!
/(A) I would-like-to object-marker this two M big mountain move-away, afterwards then OK perfect-particle.
(B) Don't forget past-particle this two M mountain are both high and large exclamations-particle!

'(A) I'd like to move these two large mountains away, then it'll be better. (B) Don't forget that these two mountains are both high and large.'


/Enter modifier-particle is I modifier-particle Chinese friend. I immediately invite him to sit-down, for him pour tea. I modifier-particle friend say: "Don't polite."/

'It was my Chinese friend that came in. I immediately asked him to sit down and gave him some tea. My friend said, "Don't be so polite."

Grammatical Indications of Definiteness

It is not only the fact that an NP of the (A)(Mod)N type is a second reference that indicates that it is a definite NP. It is also clear that these NPs are definite from the grammatical function in the clause if they are subjects, objects of the object marker bā, or modifiers followed by de. However, an NP of the pattern (A)(Mod)N in object position may be either unspecified or definite. In such cases the listener may be entirely dependent upon context to determine whether the speaker means the NP to be definite or unspecified.
Use of zhèi 'this' and nèi 'that' in Second References

It appears that zhèi 'this' is much more frequently used than nèi 'that' in references pointing back to a previously mentioned NP. Nèi is the regularly used determinative after a restrictive de modifier, as in example 19; in a second reference which repeats the same NP, zhèi would not be substituted for nèi. However, if nèi is used in a first reference because the object referred to is at some distance from the speaker, zhèi may be substituted for the nèi by the other speaker if that object is near him. No attempt was made to find explanations for those places where nèi is used in second references rather than zhèi.

Other Possible Cases of Zeros

It should be noted that there are other possible cases of zero that have not been considered in this study. One is of possible zero references to place objects, i.e., to objects of verbs like qù 'go' or dào 'arrive' which only take place word objects. Another is of possible zero substitutes for clauses or verb phrases as in

(1) Tā yǐ-jǐng huí qu le. Nǐ bù zhǐ-dào ma?
   /He already return go past-particle. You not know question-particle?/
   'He's already gone back. Didn't you know?'
(2) Wǒ xiāng qù kàn diàn-yīng. Nǐ péi wǒ qù, hǎo bù hǎo?
   /I would-like-to go see movie. You accompany me go,
good not good?/
'I'd like to go see a movie. How about going with me?'}
CHAPTER V

THEORETICAL QUESTIONS

Zeros and the System of Anaphora

This chapter explores the possibilities of an adequate treatment in different types of grammatical frameworks, of several points raised in this study. The first of these concerns the use of zeros in the system of NP substitutes.

There are two uses of zero treated in this study. One use of zero is in a reference to something that has previously been referred to by an NP. In this use, the zero resembles a pronoun. In the other use the zero represents a noun that has been mentioned before but the referents in the two occurrences are not identical. This is the case when zero stands for a noun head, or when zero stands for an unspecified object of a verb. Since the object is unspecified, it is beside the point to discuss the question of identity of referents. Both of these uses of zeros are structurally significant. This assumes the view that regularities and restrictions in the ways that meanings are expressed in speech are linguistically relevant and are to be accounted for by the grammatical system according to which the structures of sentences are generated—unless the regularities and restrictions are wholly explainable by the nature of the
things and events in the outside world, whether real or fanciful, that are being talked about.¹ In this view, zero substitutes are a part of the system of anaphora in Chinese just as much as pronouns are.

Treatment in an IC Grammar

A generative IC grammar enumerates structures of the tree type. The terminal nodes are morphemes, or minimal syntactic units composed of a sequence of morphemes. (I am assuming that phonological units belong to a different structure, i.e., I am assuming at least a two-stratum view. In a one-stratum view, terminal nodes are phonological units, so every other unit must be, too. Since zeros are not real in a phonological sense they cannot be incorporated into a phonological structure or a one-stratum view.)

Zeros could be incorporated into such an IC tree only under two conditions. One is that each zero would have to be considered a unit distinct from the unit which has the same referent (i.e., the overt NP or N which makes the first reference cannot be said to have two functions, it has one

¹ Compare the following remarks by Richard Gunter from pages 149-50 of "Elliptical Sentences in American English," Lingua XII (1963) and similar remarks on pages 138, 139, and 143: "The generalizations that can be drawn up about the workings of contextual ellipsis are precisely grammar, which is simply to say that they are descriptive generalizations about language. The use of contextual ellipsis may constitute a style, but the phenomenon itself is a part of English grammar."
function and the zero, a different unit, has another function). The other condition is that these zeros would have to be considered morphemes (at least two different morphemes: the zero N and the zero NP—perhaps the zero for unspecified objects should be a distinct, third morpheme). To recognize the zeros as distinct morphemes appears feasible since there are overt morphemes with similar functions (in other languages if not in Chinese)—the pronouns in Chinese and one in English as in the red one. The only difference between these zeros and overt morphemes would be that these morphemes have no phonological representation. But there is nothing objectional in having representation rules that specify zero phonological representation for certain morphemes in all occurrences. Representation rules to account for the so-called zero allomorphs are the same except that they apply in the representation of a morpheme in only some of its occurrences.

A more significant difference will appear in the range of grammatical patterns that will be allowed or not allowed if these zeros are treated as morphemes. The grammar would no longer allow a D-M construction, for example, to occur without a following noun. In cases like Wǒ gōng-chǎng sān-guān guó bù-shǎo /I factory tour experience-particle quite-a-few/ 'I have toured quite a few factories,' the

2 Except for D-xiē (see above, p. 46) or where the M is a standard measure and thus regularly followed by no N.
grammatical system would have to be changed to allow structures of the pattern: Subject\textsubscript{1} + Subject\textsubscript{2} + Verb + Object, where both Subject\textsubscript{2} and Object contain morphemes referring to the same thing (gōng-chāng and ∅). But actually the same sort of thing has to be allowed in sentences like Něi ge rén wǒ bù néng gēn tā yóu lái-wāng /That M person I not can with him have social-intercourse/ 'I can't have anything to do with that man' where Něi ge rén and tā have the same referent. Evidently an IC type grammar can incorporate these zero morphemes without much trouble.

What it cannot incorporate, in its present form, is the system of anaphora. It can incorporate the units used in the system but not the rules which govern their use. That is, there is no place in an IC grammar for rules such as "To rewrite Object choose an NP construction if the referent is not the same as any preceding NP; if it is, under certain conditions choose an NP, under others, choose a pronoun, and, under still others, choose zero." The conditions in such rules are of two types—one concerns the reference of forms and the other concerns the grammatical function and position of those forms. IC grammars have never included conditions of these sorts, especially when the conditions can have effect across sentence boundaries. Even if such grammars were revised to account for units larger than a sentence, they still provide no formal way of showing identity of reference. I am not objecting to IC grammars
because writers of them have not, supposedly, thought up nice formula-like ways of expressing certain conditions. Conditions can be written in precise prose and be adequate. But they must be in terms of the system if they are part of the system and there is nothing in the system of an IC grammar which expresses anything about identity of reference. Identity of reference can be formalized in a linguistic system only if a distinct, deep structure is recognized that can represent it. This deep structure is thus significantly different from the surface structure, which resembles an IC grammar. The rules for a system of anaphora are essentially rules for correspondences between deep and surface structures and can therefore only be incorporated in models recognizing these two structures, e.g., transformational and stratificational models.

Treatment in a Tagmemic Grammar

Essentially the same remarks can be made about a tagmemic model of grammar as have been made about an IC grammar. The tagmemic model resembles the two-stratum IC grammar in distinguishing the phonological hierarchy from the grammatical hierarchy. (The lexical hierarchy is not of concern here.)

Zero morphemes could be incorporated into the grammatical hierarchy but Pike does not wish to do so. He believes he can get around this by calling zero manifestations
of tagmemes zero allotagmas. Tagmemes, however, are function (= slot) - class correlates, not function - morpheme correlates. A zero allotagma would imply that a tagmeme is manifested by a zero class. But this is not true of the situations to which the term "zero allotagma" is applied. It is a matter of the tagmeme's being manifested by a zero morpheme--just one member of the manifesting class is zero. Furthermore, although Pike obviously does not mean it, the term "zero allotagma" would seem to imply that both function as well as manifesting class are zero. It is quite misleading to use the term "zero allotagma." Pike's avoidance of zero morphemes is not successful.

Treatment in a Transformational Grammar

Structures generated in the phrase structure component of transformational grammars are such that they have units which in the derived structures have no phonological realization (because they are deleted by transformation rules) or such that they have patterns not characteristic of the morpheme strings after the transformations have been applied. This would seem to be an advantage over IC grammars since in the surface structure of a sentence, before it is "phonetically interpreted," one does have a structure which

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corresponds to an IC analysis of the sentence without the zero forms, i.e., an IC analysis such as Chao's. Since an IC grammar does not distinguish deep and surface structures, its one grammatical structure would have to be complicated enough to include the zero forms, and the simpler structure without them would be only indirectly shown in the phonological structure which represents the grammatical structure.

However, since a transformational grammar is a one-stratum grammar, morphemes in the deep structure are there only in so far as they are represented by a sequence of phonological features. Thus the zeros cannot be incorporated into a transformational grammar as distinct morphemes different from other morphemes as was suggested might be possible in a two-stratum IC grammar. Instead, an overt NP, presumably the same one as found in the first reference, has to be generated in the deep structure and then deleted by transformational rules. Let us now consider how this might affect the possibilities of incorporating the system of anaphora into a transformational grammar.

The biggest problem here is to express identity of reference in some formal way. In the past, conditions for certain transformations have been expressed in terms of identity of form. If the object of a verb were the same form as the subject, then the transformation changing the object to a reflexive pronoun would be applied. This, of course, is unsatisfactory since two NP's of the same form
need not have the same reference. More recently Chomsky has suggested assigning integers as features to "referential" lexical items to show similarity or difference of reference. The reflexivization rule, applying only when the integers assigned to the two items are the same, will change $\text{John}_1$ hurt $\text{John}_1$ to $\text{John}$ hurt himself, but not $\text{John}_1$ hurt $\text{John}_2$. This device remains ad hoc until it is incorporated into the rewrite rules. Every NP will have to be given a reference number. It is difficult to imagine what other kind of device could be incorporated into phrase structure rules to show identity of reference, but, as Chomsky points out, this method is not adequate in all cases.\(^5\)

A perhaps even more difficult revision that would be required would be the treatment of larger units than a sentence. This is required, of course, because conditions involving identity of reference cross sentence boundaries. That is why only such forms as reflexive pronouns have been taken care of in transformational grammars so far—the conditioning is always within the same sentence. Transformational grammars cannot take care of the use of pronouns or zero where they refer back to forms in a previous sentence.\(^6\)

\(^5\) Ibid., p. 146.
\(^6\) Cf. Gunter, op. cit., p. 149, where he says, "In a grammar of the transformation-generation type . . . we can
A stratificational model of grammar shares the advantages of a transformational model in so far as surface (lexemic) structures are distinguished from deep (sememic) structures. Thus the lexemic structures will be much the same as those in a Chao type grammar of Chinese—it will not be necessary to introduce zero morphemes or zero lexemic units in lexemic structures. In contrast to derived structures of transformational grammars, these lexemic structures are generated separately from the sememic structures, they are not just transformations of the deep structures. They are generated by a separate system of tactic rules, but at many of the places in these rules where choices are allowed, the actual choice made for any one sentence will be determined by the appropriate realizational rule. Realizational rules are the statements about how a sememic structure set up rules that operate on a given string of constituents to produce the possible elliptical forms of that string. But it is important to observe that we cannot arrive at these generalizations in the first place without attention to items in context. Moreover, a transformation-generation grammar, or any other type that strives only to produce the grammatical sentences of the language, can tell us nothing about the conditions in connected discourse that permit this or that elliptical form.

I believe that a morphemic stratum as distinct from a lexemic one is not justified, but whether or not a stratificational grammar includes a separate morphemic stratum does not affect my argument. If there is a distinct morphemic stratum, the morphemic structure is a "more surface" structure than the lexemic.
controls the generation of a corresponding lexemic structure. The sememic structures are networks, not trees, as in the deep structures of a transformational grammar. The structure of a whole discourse can be represented by a network, so a network is not limited to showing relations within a sentence. In a network two nodes may be related to each other in more than one way since spatial ordering is irrelevant. This is not possible in a tree where relations are order relations and where grammatical functions are defined in terms of grammatical classes and their orderings. The relations between nodes in a network are not order relations but grammatical relations. In a tree there is only one type of order relation, left to right, before-after. In a network many kinds of relations can be specified and a node can be in immediate relation with more than one node.

This makes it possible for one node to represent every occurrence of NP's or substitutes that have the same referent. If this is the case, neither overt pronouns nor zeros are realizations of nodes in the sememic structure that are distinct from the nodes realized by NP's. Pronouns as forms of a different distinct class would first appear in lexemic structures. Realizational rules would specify their use both in terms of the sememic structure being realized and in terms of the lexemic structure in which the pronouns are found. The realizational rules would also specify when it is possible for there to be no realization of the node in
the sememic structure by a lexemic unit. The different
types of so-called zero are thus represented by different
realizational rules specifying zero realization, i.e., no
realization.

Following are diagrams showing what might, in general,
be the sememic structure and lexemic structure, respectively,
of the sentence:

Nǐ xià cì kàn nǐ mǔ-qin yí-dìng yào gào-su tā.
/You next time see you mother certainly must tell her./
"Next time you see your mother, be sure to tell her."

The use of the same units for the terminal nodes in both the
sememic and lexemic structures just illustrated is misleading
although convenient. The sememes of the sememic structure
are different from the lexemes or morphemes of the lexemic
structure. In particular, labelling a sememe as nǐ is inade­
quate, for as soon as this sentence is incorporated into a
larger sememic unit that includes the other person's response to this comment, the node marked \( n^\text{\textregistered} \) is going to be realized in the lexemic structures not only as \( n^\text{\textregistered} \) but also as \( w^\text{\textregistered} \), depending on who the speaker is at any one time. Evidently such sememes would be better labelled "speaker one," "speaker two," and so on. On the basis of the "response" relation between a question and an answer in the sememic structure, a realizational rule will be able to specify correctly the use of the first and second pronouns in the lexemic structures.

Since these realizational rules will have to specify all the possible types of NP's regularly used in second references (cf. the last part of Chapter IV) as well as the pronouns or zero, they will, presumably, also have to be able to take care of cases where a noun used in a second reference is more general than that used in the first. The first noun in such a case may even be a proper noun, as in

\[
(A) \text{Wǒ dào tâi-bêi qu.} \quad (B) \text{Nǐ zěn-mo yào qù nège dî-fang?}
\]

/(A) I to Taipei go. (B) You how want go that M place?/

'(A) I'm going to Taipei. (B) How come you want to go to that place?'

This means that the sememic system must include taxonomic hierarchies of the type illustrated by Nida for English.  

\[ 8 \text{E. A. Nida, Toward a Science of Translating (Leiden, 1964), p. 76.} \]
By reference to such hierarchies, realizational rules will allow the realization of a sememic node in a second reference to be made by an NP with a more general noun as head. Cases such as example 25, page 160, in which wo-men de xué-xiào 'our school' refers back to a previous běi-jīng dài-xué 'Peking University' probably cannot be accounted for by realizational rules. If not, these two references would be represented by different nodes in the sememic structure and the fact that the same referent is being referred to in both is only evident from the "meaning context."

Identity of reference is not, of course, involved in the use of zero for noun heads or in the use of zero for unspecified objects. It may be sufficient to have, in the sememic network, distinct nodes for the second occurrences of the "noun" sememes. The realizational rules can specify zero realization of the second occurrence of the sememe on the basis of its identity with the other sememe. This would mean that second occurrences of unspecified objects of verbs are represented differently than second occurrences of definite objects, in the sememic structures. All cases of "occurring zeros" are, however, cases of a unit on one stratum not being realized on the next stratum.

It appears that, for the matters discussed so far, a stratificational framework provides the best possibilities for an adequate treatment. Deep structures in a transformational grammar are too restricted, too much like surface
structures. Choice of a model, of course, cannot depend on how well it treats just one part of the grammar. Other aspects of the linguistic system need to be taken into account. One of these other aspects has become apparent in the course of this study. It is the need for distinguishing goals from non-goals, including agents, in Chinese.

Goals and Subjects with Two Functions

"Goal" as a Grammatical Function

It has been found useful throughout this study to speak of goals and to distinguish them from other NP's of different function. In some cases, no doubt, the same data could have been described adequately if some care had been taken to avoid using the term "goal." However, this is certainly not true of all cases. The category "goal" is an integral part of the grammar system. Goal subjects are easily recognizable; by distinguishing them from other subjects and by recognizing zero goal subjects and objects, we have been able to discover that Chinese verbs include a subclass of transitive verbs that require goals. Why Chao, being consistent in his own framework, could not recognize goals as a distinct grammatical category is explained below.

First I present what I consider a clinching argument for the grammatical role the category "goal" has in Chinese by discussing an example which Chao mentions but fails to see the implications of. The example sentence is
Nèi ge rén shéi dōu bù rèn-de.
/That man who all not recognize./

Chao points out that this sentence is ambiguous, its meaning being either 'No one recognizes that man' or 'That man recognizes no one.' In the first case Nèi ge rén is a goal; in the second case, shéi is the goal.

There are several possible reasons for ambiguity of sentences. One of these, it can be argued, is not concerned with the linguistic system. I took the paper into the other room could be an ambiguous sentence where the ambiguity does not arise in the linguistic structure if the different meanings of paper such as 'newspaper,' 'sheets of material to write on,' or 'an essay' do not have correspondingly different units in the linguistic system (all of which are, however, represented in the phonological structure by the same sequence of phonemes).

Another type of ambiguity appears where the same string of morphemes may be related in an IC tree in a different way. An example is I put the paper in the box on the floor. The two possible meanings correspond to the two following IC analyses:

---

In still other cases of ambiguous sentences, the IC tree structure is the same but the classes of the units are different. This is the explanation for the ambiguous *Flying planes can be dangerous*. In either meaning the IC tree is

```
Flying planes can be dangerous
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But in one case *Flying* is a present participle derived from an intransitive verb, and in the other *Flying* is a gerund derived from a transitive verb.

The ambiguity of the Chinese sentence *內個人所 dōu bù rèn-de* cannot be explained in any of these ways. The IC structure is the same for both meanings. It is as follows:

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內個人 所 dōu bù rèn-de
```

There is no way of considering that *內個人* or *所* belongs to one class at one time and to another at another time. The only way to explain the ambiguity is to recognize a deep structure in which the category "goal" has a function and to say that this sentence represents, at different times,
two different deep structures but always has the same sur-
face structure. The ambiguity of this sentence must repre-
sent some difference in linguistic structure but this dif-
fERENCE cannot be in the surface structure. The difference
has to do with goals, and goals figure only in deep struc-
tures of Chinese.

Chao's grammar of Chinese is a surface structure
grammar. It corresponds to the kind of grammar lexemic
structures have. It is a grammar in which classes are dis-
tinguished by their position in structures. Subjects are
thus distinguished from objects, subjects being pre-verbal
and objects being post-verbal. Goals as a distinct category
have no basis in this kind of structure where relations are
relations of order. If this is so, then verbs defined as a
class of words in surface structures cannot have a subclass
of transitive verbs unless this subclass is defined as it
has been in the past, namely, that these verbs sometimes take
an object. Transitivity in a strict sense is only a part of
the deep structure system where goals are recognizable.

Treatment in a Transformational Grammar

It is now time, then, to ask what is required of an
adequate account of the deep structure if it is to incorpo-
rate the concept of "goal." "Goal" is the name of a function.
It is not the name of a constituent class--i.e., a class
whose members all are composed of similar constituents. In
a transformational grammar, "goal" will not be named in rules. Like other functions, it will be defined in terms of the name of a class and the constructions it is found in, e.g., "goal" would be the function of NP in $VP \rightarrow V + NP$. The subject-object distinction must also be included in the deep structure, for differences of meaning are reflected by it and the semantic interpretation of a transformational grammar applies only to the deep structure. In order to represent in the deep structure that a goal is also subject, it would be necessary to repeat the same unit in the structure for the second function, since, in a tree, one element or node can have only one function. Rules for generating such structures would have to be something like the following:

$$S \rightarrow NP + Z$$

$$Z \rightarrow NP + VP$$

$$VP \rightarrow V + NP$$

In addition, it would be necessary to stipulate that one of the NP's in the string dominated by $Z$ be identical in reference to the NP in $S \rightarrow NP + Z$. Transformational grammars have never tried to include such restrictions. It is evidently difficult to do so, for, otherwise, some such rule would have been utilised for restricting those sentences that are embedded as relative clauses to those which would not be blocked because the shared noun phrase is not the same. In present treatments it is left to the transformations
to have this filtering function, "a devious notion at best."  

Treatment in a Tagmemic Grammar

Although the tagmemic model does separate grammatical functions like agent or goal from functions defined by relations of order, so that it can take care of a greater variety of situations where the two types of functions do not correspond than transformational grammar can, still it has no adequate way of recognizing subject and goal as distinct functions. A very similar problem in Bilaan is treated by Pike. Either actors or goals may be in focus. But since Pike ties up function with form class, he has to treat actor-focus and goal-focus each as distinct single "tagmeme composites." This is not the same situation as the portmanteau morph, in which case Pike recognizes that two separate tagmemes are being manifested by one morpheme.

Treatment in a Stratificational Grammar

The advantage of a network in representing a double function for one element is obvious. It avoids all problems of identity of reference. The following show possible networks for the sentence under consideration in its two meanings.

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These networks easily show the double functions of first subjects.\(^{12}\) (The second subject function may be a feature only of the lexemic structure, being based on a relation of order.) The relations marked by \(mod\)\(^{\rightarrow}\) probably need to be distinguished and given better names. Realizational rules provide for the ordering of the elements in the lexemic (surface) structure of these two sentences as diagrammed above, page 182.

I conclude that the stratificational model, then, presents the best framework for adequately describing the system of anaphora in Chinese and incorporating the double function nature of subjects.

\(^{12}\) They incidentally also show the double function of the adverb \(dōu\). In addition to its adverbial function, it points to one of the NP's or NP substitutes as representing the class all of whose members are being referred to.
CHAPTER VI

CONCLUSION

This study has shown that subjects and objects in Chinese are regularly left unexpressed under certain rather restricted conditions. These conditions include the overt expression of a reference to the same referent, if definite, or to the same class of referents, if unspecified, in a closely preceding clause or sentence. Unexpressed subjects are always definite; unexpressed objects are definite or unspecified. It is always clear whether the zero noun phrase substitute is definite or unspecified in reference and whether it is a subject or an object. The discussion of these zero substitutes has been placed within the larger context of all noun phrase substitutes. The study has thus included a treatment of the use of pronouns and noun phrases in other than first references to a definite referent. The places where, and the degree to which, it is optional to use overt rather than covert substitutes has also been noted. In addition, we have seen that under certain specifiable conditions the head noun of a noun phrase may be left unexpressed. The use of such covert or zero substitutes in the system of anaphora leads to a discussion of how different grammatical models might specify functioning units that are
not represented phonologically, and also to a discussion of where the rules for the use of the different substitutes should be incorporated. It appears that only a stratified model of grammar provides possibilities for even a minimally adequate treatment. Problems which an adequate model must solve include the formal specification of identity of reference and the generation of units larger than the sentence, such as the discourse. Other related problems not discussed in this study but which will ultimately have to be considered are whether or not the grammar should include categories for noun phrases like "definite," "indefinite," and "unspecified," or "person" and "non-person" and how this might be done.

This study has also shown that "goal" is a grammatical category in Chinese which can only be specified in a deep structure. Furthermore, it is one of two functions that goals in subject position have, since they also function as subjects. An examination of how a deep structure can specify two functions for one unit leads again to the conclusion that the stratified model is the only one suggested so far that can provide the framework for an adequate treatment. The recognition of "goal" as a grammatical category in Chinese brings a new understanding to the concept of transitivity in Chinese. There is a subclass of verb-like units found in deep structures which require goals. Objects in surface structures are not required by the tactic rules; their use is specified by the realization rules. It is
thus possible indirectly to define a subclass of surface structure verbs which may take objects.

On the basis of what this study has revealed about subjects (topics) in Chinese sentences or clauses—in particular, the recognition of zero subjects and the distinction between goal and non-goal subjects—it will be possible to make further progress towards an adequate description of subjects in Chinese. At the same time it will be necessary to investigate further what are the grammatically distinctive relations between clauses and sentences. This should help us arrive at a better understanding of what a sentence is in a surface structure in Chinese, whether or not there is a corresponding unit in the deep structure, and if so, what it is.
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