A GRAMMATICAL CONTRASTIVE ANALYSIS
OF
ENGLISH AND CHINESE BASIC STRUCTURES
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A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS
in the Department
of
EDUCATION
We accept this thesis as conforming to the
required standard

THE UNIVERSITY OF BRITISH COLUMBIA
April, 1967
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Date April, 1967
ABSTRACT

Students learning a foreign language are apt to apply their own linguistic habits to the new language. Actually many problems of foreign language learning arise out of the interference of the learner's first language habits. Thus modern linguists believe that a given foreign language cannot be successfully taught in an identical way to a group of students with different linguistic backgrounds. While it is true that problems of the learning of a foreign language are various, and that each of them must be attacked with a different technique, the technique of Contrastive Analysis can be universally applied in foreign language teaching. Contrastive analysis of the source language and the target language has been proved fruitful by Professor Robert Lado formerly of the University of Michigan, especially in devising tests and preparing teaching materials.

This thesis, which is based upon Professor Lado's method, is a contrastive analysis of English and Chinese basic syntactical structures, and an attempt to establish a hierarchy of difficulty so as to help teachers who teach English as a second language to Chinese students. The work is confined to the syntactical level. Other levels of the formal structure of language such as the phonological level, the morphophonemic level, and the semantic level, are beyond the scope of the purpose of the paper. The analysis is presented in the transformational approach demonstrated by
Noam Chomsky in "A Transformational Approach to Syntax". (See Introduction)

The thesis is divided into five sections. In each section, except Section 1, descriptions and contrastive analyses of the two languages are made so that conclusions can be reached and problems of Chinese speakers learning English can be predicted. Section 1 is an introduction which explains the use of contrastive analysis, and justifies the adoption of the transformational approach. Section 2 is an illustration, by generating sentences, of the English and Chinese Phrase Structure rules. Section 3 describes the Noun Phrases in both languages. Section 4 is a discussion of the personal pronoun, while Section 5 contains a classification of English and Chinese verbs.

It is hoped that this paper will be of some value for teachers who are teaching English to Chinese speakers, and also that it will provide other teachers with some insight into the values of contrastive analysis in foreign language teaching.
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1. **Introduction**

This paper is a contrastive analysis of English and Chinese basic structures for the use of high school teachers who teach English as a foreign language to Chinese students. It might also be used as reference for teachers teaching Chinese to English speakers. In either case the reader is assumed to have some basic theoretical knowledge of his native language and adequate knowledge of the foreign language he is teaching. If he is teaching his native language to foreign students, this paper should provide him with some basic knowledge of the native language of his students.

Modern linguists emphasize the fact that a given second language cannot be successfully taught if the teacher ignores the first language background of his students. This is because, when a child is learning his native language, he is building up at the same time a set of habits that prevent him from responding to structures which do not occur in his language. In other words, in learning a foreign language, problems often arise not only out of the basic difficulty of the target language, but also out of the interference of the learner's first language habits. Moreover, most students seem to take it for granted that the new language naturally follows a structural pattern identical to that of their native language. This is especially true when the student has previously learned one or two other languages which are rather similar to his native language.
Many language teachers realize the importance of studying the linguistic backgrounds of their students in order to achieve better results in the classrooms, but very often they lack adequate techniques when confronted with actual problems. In most cases, it is due to the fact that they do not realize the necessity of making, with their knowledge, scientific comparisons of the structures of the two languages, and the appropriate application of the results of such comparisons in preparing teaching materials and language learning experiments. This kind of scientific comparison, or contrastive analysis, is really helpful in solving problems in foreign language learning. Contrastive analysis of English and other languages has been proved fruitful by many scholars, especially by Professor Robert Lado, formerly of the English Language Institute at the University of Michigan, who has devised a large number of tests on the basis of careful systematic comparison of one language with another.\(^1\)

Contrastive analysis can be made on several levels. This paper will be confined to syntactical analysis of English and Chinese basic features. The method used in contrasting the languages will follow closely that suggested

by Professor Lado in his book *Linguistics Across Cultures*,\(^2\) which is presented to trained foreign language teachers. Careful systematic descriptions of kernel sentences and their formatives will be made. Then conclusions can be drawn, and a number of assumptions can be made which may help predict problems of Chinese speakers learning English.

In preparing the necessary alignments of syntactical items of both languages, an appropriate technique has been carefully chosen. The approach adopted will be a fairly new one known as Transformational Analysis. This kind of linguistic analysis coexists today with two others, namely, Traditional Analysis and Structural Analysis. The reason for the adoption of the transformational approach is justifiable. Here I would like to discuss briefly these three types of grammars.

a) Traditional Grammar. The traditional grammarian has very high goals. His attitude is sincere in attempting to work out rules and definitions based upon the usage of mature users of the language so that less mature users of same language may have something to follow. However, the traditional grammarian fails to understand that he is not describing the language as it is, but ordering people to speak and write the way he thinks the language should be spoken and written. He advocates what is called "standard"

language. Therefore, dialects are considered corrupted versions of the 'standard'. Under such a principle all dialect speakers have to revise their native way of speaking and writing the language, not because it is ungrammatical in their speech community, but because it is not spoken or written according to the 'set rules' laid down by a small group of people. 3

It is not difficult to realize that the approach used by the traditional grammarian to describe a language is not scientific, since it cannot be open to anyone's verification. Moreover, the grammar itself contains quite a number of false notions. Evidence can be seen in definitions like "A noun is the name of a person, place, or thing." Such a definition is inadequate when applied to defining words like "wisdom", "pain", "lightning" which include notions more than those stated in the foregoing definition. 4

Almost all traditional grammar books say that English has the present, past, and future tenses. But actually if we look at the language carefully, we will find that what is described as the future tense is a structure entirely different from that of the two other tenses.


On the whole, traditional grammar is based upon the "good and bad", "right and wrong", "black and white" type of principle which is quite against the modern linguistic spirit in the research of truth. Therefore, traditional analysis cannot be the best approach to describe any living language.

b) Structural Grammar. Towards the beginning of the thirties, there was born in America a new field of linguistics which was based upon "Behaviorism" and "Pragmatism". It was once called "Descriptive Linguistics", but it is now called "Structural Linguistics".

The structural linguist believes that a grammar is a systematic description of the spoken language only; it never suggests how the language should be spoken. According to the theory of this school, every language has its own basic structure. So a method suitable to describe one language may not be suitable to describe another. Members of a certain speech community understand one another because they have all acquired the mastery of the basic structures of the language. The structural linguist thinks that written forms are only arbitrary symbols devised to represent speech sounds. So a spoken sentence is only a stream of utterances produced by the speech organs. A language can thus be analysed by means of a scientific scheme into sets of elements on four levels: the phonological level, the morphological level, the morphophonemic level, and the syntactic level.
Structural grammar has its own fallacies. The structural linguist thinks, ignoring the learner's background and need, that the student learning a language should start first with a thorough phonemic study of the language before he can go on to the other structures; otherwise, he is committing the fault of "mixing levels". Such a restriction has created much argument and difficulty in the field of linguistic learning and analysis.

It is true that the structural linguist has set linguistic students free from the old nineteenth century type of historical linguistic studies, but he seems to have mixed up language and spoken language. Such a confusion has become a new obstacle in linguistic learning.

Moreover, even in actual application structural grammar does not explain adequately ambiguities like:

1) /They / were / entertaining women/
    /They / were entertaining / women/

2) /He / shot / the bird / in the garden/
   /He / shot / the bird in the garden/

In the first sentence in 1), the N women is the "subject" of the verb "were", but it is the object in the second sentence. Structural grammar describes the ambiguity only; it never explains it.\(^5\) Similarly, structural grammar does not explain

why the phrase "in the garden" in the first sentence in 2) refers to the subject, while in the second it refers to the object.

c) Transformational Grammar. During the fifties, following the American criticism of Pragmatism, linguists' concentration on structural linguistics was diverted to generative grammar. In fact, structural linguistics began to have a rival after Noam Chomsky, a scholar of formal logic and linguistics, published his *Syntactic Structures* in 1957 and delivered his paper entitled "A Transformational Approach to Syntax" in the Third Texas Conference on Problems of Linguistics in English held in 1958 at the University of Texas.

The transformational linguist considers that the structuralist has made many mistakes in analysing language in a mechanical way, for language is more than arbitrary symbols and comprises a finite set of definite items which when combined can produce an infinite set of sentences. A grammar is not merely a description of what is being spoken by native speakers of a certain language, but is also a theory of the language which should be based upon the intuition of native speakers. This intuition may be

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formalized by rules which will generate and give a structural description of all grammatical utterances of the language, and also explain ambiguities not fully explained by structural grammar. This intuition is acquired by everyone as he passes from infancy to childhood. The process involves factors of psychology, sociology and linguistics. Therefore, the language student need not necessarily go through the structuralist's four hypothetical levels one by one in fixed order, which are useful only for linguistic observation. He can possibly begin with syntax in the studying of a language, ignoring for the time being the other three levels. The native speaker may utter ungrammatical sentences of his language, but he has the capacity to correct basic errors by means of his intuition.

Chomsky thinks that there are three kinds of grammar. The first kind of grammar describes only what is being spoken among the native speakers, and thus deals with only the superficial structure of the language. Grammar like this reaches only what Chomsky calls the "level of observational adequacy". Structural grammar belongs to this category. The second kind of grammar has a higher goal. It gives an account of how an ideal language may be produced and a set of rules from which such an ideal language

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may be derived. Such a grammar, according to Chomsky, reaches the "level of descriptive adequacy", and traditional grammar is an example of it. The third kind of grammar aims at an achievement highest of all. With a set of rules based on the native speaker's intuition, this grammar attempts to explain all structures, including the deep structure, of a language. It is also applicable to all languages. Chomsky considers that this kind of grammar reaches the "level of explanatory adequacy", and that transformational grammar belongs to this type of grammar.

With their disadvantages in language analysis, neither traditional grammar nor structural grammar is suitable for the purpose of my research. Transformational analysis seems to be an ideal approach for me, since it allows both languages to be described and contrasted with each other under one principle. Here I must say that transformationalists have been reconsidering some of their previous notions within the past four years, and some of their approaches have been changed. I shall adopt techniques based largely upon the earlier notions set forth in The Third Texas Conference regardless of the recent revisions, because I believe that this earlier model is adequate for the purpose of my research.

In order to ensure that this paper can be read more easily, I think the following description of transformational grammar and examples to illustrate how it operates are necessary.
In analysing a sentence, transformational grammar starts with the "Initial String". "Phrase Structure" rules and some "Transformational Rules" are then applied until we reach the "Kernel String" (K.S.). Transformational rules may be obligatory or optional. For example, the rule of the affix of the verb is obligatory, while the rule of negation is optional. This means that the former must be applied in order to get a grammatical sentence, while the latter is needed only to generate a negative sentence. A derived kernel string cannot be read unless "Morphophonemic Rules" are applied. So transformational grammar actually consists of the following levels:
1) Phrase Structure; 2) Transformational Structure; and 3) Morphophonemic Structure.

To illustrate the foregoing paragraph, here is an example:
e.g. The boy ate an apple.

Initial string: Sentence --> NP (Noun Phrase + VP (Verb Phrase)

(---> stands for "rewritten as")

By phrase structure rules: (See Chomsky's complete set of Phrase Structure rules at the end of "Introduction")
NP + VP

sing

(English NP's can be either singular or plural. Here we have chosen the singular.)

NP + Aux + VP

sing 1
(All English verbs contain Aux. Here Aux contains more than the usual meaning of "auxiliary", that is "shall", "will" and "may", "be", "have", etc.; it consists of "tense" and "number", "modal", "have + en" and "be + ing". After Aux either "be" or "VP_1" may occur. Here we have chosen VP_1.)

\[ T + N + \emptyset + Aux + VP_1 \]

(T stands for "determiner", N for "noun". \(\emptyset\), read as "zero", is a singular marker.)

\[ T + N + \emptyset + Aux + V + NP \]
\[ T + N + \emptyset + Aux + V + NP_{sing} \]
(We have chosen a singular NP again.)

\[ T + N + \emptyset + Aux + V + T + N + \emptyset \]
\[ T + Nh + \emptyset + Aux + V + T + N + \emptyset \]

(English nouns may be classified into sets having various characteristics of countability and noncountability, humanness and nonhumanness, and abstract and concrete reference. We have chosen a count, human, concrete noun.)

\[ T + Nh + \emptyset + Aux + V + T + Nc + \emptyset \]
(We have chosen a count, nonhuman, concrete noun.)

\[ T + Nh + \emptyset + Aux + V_{T} + T + Nc + \emptyset \]
(English verbs can be either copula, intransitive or transitive. Here we have chosen a transitive verb because there is a NP after the verb as the object.)

\[ T + Nh + \emptyset + Aux + V_{t32} + T + Nc + \emptyset \]
(\(V_{t32}\) is a subclass of \(V_{T}\), classified according to types of N allowable in either position, i.e., either in
the first or in the second NP.)
\[ T + \text{Nh} + \emptyset + C + V_{t32} + T + \text{Nc} + \emptyset \]
(C stands for "tense" and "number").
\[ \text{The} + \text{Nh} + \emptyset + C + V_{t32} + T + \text{Nc} + \emptyset \]
(English determiners can either be definite or indefinite. Here we have chosen a definite T.)
\[ \text{The} + \text{boy} + \emptyset + C + V_{t32} + \text{an} + \text{Nc} + \emptyset \]
(We have chosen an indefinite T.)
\[ \text{The} + \text{boy} + \emptyset + C + V_{t32} + \text{an} + \text{apple} + \emptyset \]
\[ \text{The} + \text{boy} + \emptyset + \text{Past} + V_{t32} + \text{an} + \text{apple} + \emptyset \]
(English tenses can be either Past or Present. Here we have chosen Past.)
\[ \text{The} + \text{boy} + \emptyset + \text{Past} + \text{eat} + \text{an} + \text{apple} + \emptyset \]
\[ \text{The} + \text{boy} + \emptyset + \text{eat} + \text{Past} + \text{an} + \text{apple} + \emptyset \]
(Here an obligatory transformational rule is applied to move the verb affix "Past" to the right position.)
By morphophonemic rules, we arrive at the kernel sentence: "The boy ate an apple."
By applying similar rules we can also generate the formative sentence which underlies sentences like "The girl drew a picture" and "The man smoked a pipe".
The following set of English phrase structure rules was originated by Noam Chomsky in his "A Transformational Approach to Syntax".9

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1. Sentence $\rightarrow$ NP + VP (Adv)
   \[
   \begin{align*}
   &\text{be} \\
   &\text{Adv}_1 \\
   &\text{Pred}
   \end{align*}
   \]

2. VP $\rightarrow$ Aux
   \[
   \begin{align*}
   &\text{VP}_1 \\
   &\text{Pred}
   \end{align*}
   \]

3. VP$_1$ $\rightarrow$ V
   \[
   \begin{align*}
   &\text{NP} \\
   &\text{Pred}
   \end{align*}
   \]

5. Adv $\rightarrow$
   \[
   \begin{align*}
   &\text{yesterday, every morning, etc.} \\
   &\text{Adv}_1 \\
   &\text{in the house, at the theatre, etc.}
   \end{align*}
   \]

6. Adv$_1$ $\rightarrow$
   \[
   \begin{align*}
   &\text{there, away, home, ...}
   \end{align*}
   \]

7. NP $\rightarrow$
   \[
   \begin{align*}
   &\text{sing} \\
   &\text{pl}
   \end{align*}
   \]

8. Pred $\rightarrow$
   \[
   \begin{align*}
   &\text{sing} \\
   &\text{pl}
   \end{align*}
   \]

9. Adj $\rightarrow$ Very + Adj

10. \[
    \begin{align*}
    &\text{sing} \\
    &\text{pl}
    \end{align*}
    \]
11. N --> \( \{ \text{Nh} \} \)
\( \{ \text{Nc} \} \)
\( \{ \text{Nab in env}\{V_t\} \} \)

12. \( V_t \) --> \( V_T \) \( \{ \text{Comp} \} \)
\( \{ \text{Prt} \} \)
\( \{ V_{t1} \text{ in env. Nh} \} \)
\( \{ V_{t2} \text{ in env. Nh} \} \)
\( \{ V_{t31} \text{ in env. Nh} \} \)
\( \{ V_{t32} \} \)

13. \( V_T \) --> \( \{ V_{T_{a1}}, V_{T_{c1}}, V_{T_{d1}}, V_{T_{e1}}, V_{T_{f1}}, V_{Tf2}, V_{Tg1}, V_{Tg2} \} \)

14. \( V_T \) --> \( \{ V_{T_x} \text{ in env. Prt} \} \)

15. Prt --> out, in, up, away ....

16. T --> a, the

17. Aux --> C(M) (have + en) (be + ing)

18. C --> Present, Past

19. M --> can, may, will, shall, must
Nh --> I, you, he, man, boy ....

20. N_c --> it, table, book ....
N_{ab} --> it, sincerity, justice ....

21. V_i --> arrive, disappear, ....

22. V_s --> feel, seem, ....

23. V_{t1} --> admire, find, ....
V_{t2} --> terrify, astonish, ....
V_{t31} --> find, complete, ....
V_{t32} --> eat, smoke, ....
24. $V_{Ta} \rightarrow$ consider, believe, ....
$V_{Tb} \rightarrow$ know, recognize, ....
$V_{Tc} \rightarrow$ elect, choose, ....
$V_{Td} \rightarrow$ keep, put, ....
$V_{Te} \rightarrow$ find, catch, ....
$V_{Tf} \rightarrow$ imagine, prefer, ....
$V_{Tg} \rightarrow$ avoid, begin, ....
$V_{Te_1} \rightarrow$ persuade, force, ....
$V_{Tf_1} \rightarrow$ want, expect, ....
$V_{Tg_1} \rightarrow$ try, refuse, ....
$V_{Tx} \rightarrow$ take, bring, ....

25. Adj. $\rightarrow$ old, sad, ....

The following set of Chinese Phrase Structure rules is based upon Chomsky's theory of language.

1. Sentence $\rightarrow$ (NP) + VP
   
   $\begin{cases} 
   \text{be} + \{\text{Adj}\} \\
   \{\text{NP}\} 
   \end{cases}$

2. VP $\rightarrow$ (Aux) $\begin{cases} 
   \{(\text{Intensifier}) + \text{Adj}\} \\
   \{\text{Verbal}\} 
   \end{cases}$

3. Aux $\rightarrow$ (M)
   
   Aux$_1$ $\rightarrow$ (P)
   
   $\begin{cases} 
   V 
   \end{cases}$

4. Verbal $\rightarrow$ $\begin{cases} 
   V1 \\
   VT 
   \end{cases}$

5. V $\rightarrow$ $\begin{cases} 
   V2 + \text{NP} \\
   \{(\text{Intensifier}) + V3 + \{\text{Adj}\}\} 
   \end{cases}$
6. VI \rightarrow \begin{cases} 
(\text{Adv}) + \text{Vi}_1 \\
\text{Vi}_2 + \text{Adv-p} \\
\text{Vi}_3 + \text{LE} \\
(\text{Adv-p}) + \text{Vi}_4 \\
\text{Vt}_1 + \{\text{NP} + \text{NP}_1\} 
\end{cases}

7. VT \rightarrow \begin{cases} 
\text{Vt}_2 + \text{NP} = \text{Vt}_{2b} + \{\text{Adv-p}\} \\
\text{Vt}_3a + \text{NP} + \text{Vt}_{3b} + \text{NP}_1 
\end{cases}

Note: For illustration of \text{Vt}_{2a} \ldots \text{Vt}_{2b}, see Section 2B, \#13.
For illustration of \text{Vt}_{3a} \ldots \text{Vt}_{3b}, see Section 2B, \#14.

8. Adv \rightarrow \begin{cases} 
\text{Adv-p} \\
\text{Adv-t} 
\end{cases}

9. NP \rightarrow \begin{cases} 
\text{NP} \\
\text{sing} \\
\text{pl} 
\end{cases}

10. \text{NP}_{\text{sing}} \rightarrow \begin{cases} 
\text{T} + (\text{Cl}_{\text{sing}}) + \begin{cases} 
\text{NH} + \emptyset \\
\text{Nc} \\
\text{Nab} 
\end{cases} 
\end{cases}

11. \text{NP}_{\text{pl}} \rightarrow \begin{cases} 
\text{T} + (\text{Cl}_{\text{pl}}) + \begin{cases} 
\text{Nh} + (\text{MEN}) \\
\text{Nc} 
\end{cases} 
\end{cases}

12. T \rightarrow \begin{cases} 
\text{T}_{\text{demon}} \end{cases} + \begin{cases} 
\text{T}_{\text{quan}} 
\end{cases}

13. Cl \rightarrow \begin{cases} 
\text{Cl}_{\text{sing}} \\
\text{Cl}_{\text{pl}} 
\end{cases}

14. M \rightarrow \text{CHANG, KW} '\text{AI} \ '\text{will}', 'be going to' \ldots
P \rightarrow \text{LE} \ 'Past marker'
15. be $\rightarrow$ SHIH

16. Intensifier $\rightarrow$ HEN 'very', T'AI 'too' ....

17. $V_1$ $\rightarrow$ TSAI 'on', 'in', 'at' ....

$V_2$ $\rightarrow$ YU 'have'.

$V_3$ $\rightarrow$ HSIEN 'seem', 'look like'.

18. $V_{11}$ $\rightarrow$ LAI 'come', CHU 'go' ....

19. $V_{12}$ $\rightarrow$ TSO-TSAI 'sit on/in', TSAN-TSAI 'stand on' ....

20. $V_{13}$ $\rightarrow$ HSIA-YU 'rain' ....

21. $V_{14}$ $\rightarrow$ NEN-SHU 'study', YU-SHIH 'play' ....

22. $V_{15}$ $\rightarrow$ HSUEH 'learn', KEI 'give' ....

23. $V_{16}$ $\rightarrow$ BA ... DA 'hit', BA ... MAI 'buy' ....

24. $V_{17}$ $\rightarrow$ SHUAN ... WEI 'elect', MING ... WEI 'name' ....

25. Adj $\rightarrow$ HAU 'good', KAO 'tall' ....

26. Adv-p $\rightarrow$ CHE-R 'here', FONG-TZU-NEI 'in the house' ....

27. Adv-t $\rightarrow$ TIN-TIN 'every day', CHAN-CHAN 'always' ....

28. $T_{\text{demon}}$ $\rightarrow$ CHE 'this', NEI 'that' ....

$T_{\text{quan}}$ $\rightarrow$ I 'one', R 'two', SAN 'three' ....

$T_{\text{qual}}$ $\rightarrow$ HAU-TE 'good', HUNG 'red' ....

29. Cl-sing $\rightarrow$ KO, KW'AI 'piece' ....

Cl-pl $\rightarrow$ PAN 'class', TSUH 'group' ....

30. Nh $\rightarrow$ HAI-TZU 'boy', JEN 'man', WO 'I' ....

Nc $\rightarrow$ TSO-TZU 'table', FONG-TZU 'house' ....

Nab $\rightarrow$ MEI-LI 'beauty', TZI-WEI 'wisdom' ....
2.A. **English Phrase Structure**

As shown above according to the theory of language description originated by Noam Chomsky and demonstrated in "A Transformational Approach to Syntax", basic English sentences may be derived from a set of rules called phrase structure rules (see page 12). This set of rules states that an English sentence (S) consists of a noun phrase (NP) and a verb phrase (VP); the rule can be represented by this formula: \( S \rightarrow NP + VP \), where the arrow stands for "may be rewritten as". Therefore, in the sentence "The birds sing", the NP is "The birds" while the VP is "sing".

In English the NP may comprise a number of items, and so may the VP. In the previous sentence, for example, the NP is "The + birds", whereas the VP "sing" can be enlarged by adding an adverb to it, say, "loudly". We also note that here the subject is plural, so actually the NP is "The + bird + pl. marker s".

Chomsky has given us a set of rules that will generate such basic structures; in the following sections I shall attempt to illustrate some of these rules by generating some English sentences.
1. Basic structure: NP (Subject*) + VP (*be + Adverb*)
e.g. The boy was here.

K.S. (a): The + boy + φ + Past + be + here

By applying similar rules we can also generate the formative sentence which underlies sentences like "He is outside", and "The teacher is in the house."
2. Basic structure: NP ('Subject') + VP ('be' + Adjective')

   e.g. The lion is hungry.

K.S. (b): The + lion + ø + Present + be + hungry

By applying similar rules we can also generate the formative sentence which underlies sentences like "I am tired", and "Howard is angry."
3. Basic structure: NP ('Subject') + VP ('be + Pred')

e.g. These men are teachers.

By applying similar rules we can also generate the formative sentence which underlies sentences like "John is a student", and "Mary is a nurse."
4. Basic Structure: NP ('Subject') + VP ('Vs' + 'Adjective')

   e.g. The men feel sad.

K.S. (d): The + man + S + Present + feel + sad

By applying similar rules we can also generate the formative sentence which underlies sentences like "John looked happy", and "The birds seem beautiful."
5. Basic structure: NP ('Subject') + VP ('Vs' + 'NP')

    e.g. The boy became a man.

    K.S. (e): The + boy + \emptyset + Past + become + a + man + \emptyset

    By applying similar rules we can also generate the formative sentence which underlies sentences like "He felt a fine fellow", and "John remained a coward."
6. Basic structure: NP ('Subject') + VP ('Vi' + 'Adv-p')

e.g. The birds come from the south.

K.S. (f): The + bird + S + Present + come + from the south

By applying similar rules we can also generate the formative sentence which underlies sentences like "The men came from London", and "They went into the house."
7. Basic structure: NP ("Subject") + VP ["Vt" + 'NP' ("Object")]

   e.g. The student learned English.

K.S. (g): The + student + $\emptyset$ + Past + learn + $\emptyset$ + English + $\emptyset$

By applying similar rules we can also generate the formative sentence which underlies sentences like "The man shot the tiger", and "Birds eat worms."
8. Basic structure: NP ('Subject') + VP ['Vt' + 'NP' ('Indirect Object') + 'NP' ('Direct Object')]
e.g. The man gave the boy a book.

This structure contains such a transformation as
\[ NP_1^{\uparrow} NP_2 \rightarrow NP_2^{\uparrow} NP_1 \] This rule is obligatory.

K.S. (h): The + man + \emptyset + Past + give + the + boy + \emptyset + a + book + \emptyset

By applying similar rules we can also generate the formative sentence which underlies sentences like "He gave me a car", and "The student brought me a pen."
9. Basic structure: NP ('Subject') + VP ['Vta' + 'NP' ('Object') + 'Complement' ('NP')] 

   e.g. The boy considered the servant a fool.
This structure, as we can see, contains an embedding. In other words, virtually it is constituted of two kernel sentences:

\[ S_1 \rightarrow \text{The servant was a fool.} \]

\[ S_2 \rightarrow \text{The boy considered X.} \]

\( S_2 S_1 \) involves some transformations. An obligatory rule of deletion must be applied to reach the given structure. Therefore,

\[ \text{The} + \text{boy} + \emptyset + \text{Past} + \text{consider} \]

\[ X \rightarrow \]

\[ \text{The} + \text{servant} + \emptyset + \text{Past} + \text{be} + \text{a} + \text{fool} + \emptyset \]

Apply T-del, we reach this structure:

Final String (i): The + boy + \emptyset + Past + consider + the + servant + \emptyset + Comp "a + fool + \emptyset"

By applying similar rules we can also generate the formative sentence which underlies sentences like "I supposed him an honest man" and "The man thought her an angel".
10. Basic structure: $\text{NP} (\text{'Subject'}) + \text{VP} \left[ \text{'Vt_c'} + \text{NP} \right]$

\[ (\text{'Object'}) + \text{'Complement'} (\text{NP}) \]

- e.g. The club elected the man secretary.
Like the previous one, this structure also contains an embedding. It is also constituted of two kernel sentences:

\[ S_1 \rightarrow \text{The man was the secretary.} \]

\[ S_2 \rightarrow \text{The club elected } X \]

\[ S_2 \overset{c}{\rightarrow} S_1 \] involves some transformation. An obligatory rule of deletion must be applied to reach the given structure. Therefore,

\[
\begin{align*}
\text{The + club + } \emptyset + \text{Past + elect} & \quad | \quad X \rightarrow \\
\text{The + man + } \emptyset + \text{Past} & \\
\text{+ be + secretary + } \emptyset
\end{align*}
\]

Apply T-del, we reach this structure:

Final String (j): \text{The + club + } \emptyset + \text{Past + elect + the + man} \\
+ \emptyset + \text{Comp } "\emptyset + \text{secretary + } \emptyset"

By applying similar rules we can also generate the formative sentence which underlies sentences like "The people elected him president" and "They made him king."
2.B. Chinese Phrase Structure

Chinese grammar is simpler than English grammar in that there is no inflection of any sort in the language. Generally speaking, some Chinese structures are rather similar to those of English in word order. In the following sections we shall see some Chinese features which are generated from the Chinese phrase structure rules derived from Chomsky's theory of language (see page 15). The Chinese sentences are so arranged as to match the English models analysed in the previous section, so that the contrastive analysis can be followed more easily.

1. Basic structure: NP ('Subject') + VP ('V' + 'Adv-p')

 előxig. CHE SHAO-HAI TSAI CHE-R
'(This boy is here)'

K.S. (a): CHE + SHAO-HAI + ∅ + TSAI + CHE-R

By applying similar rules we can also generate the formative sentence which underlies sentences like T'A TSAI HSUEH-SHAO, "He is in school", and WO TSAI CHIA, "I am at home."
2. Basic structure: NP ('Subject') + VP ('Adjective')

\[ \text{這獅子餓了} \]
\[ \text{e.g. CHE HZI-TZU NGO-LE} \]
\[ (\text{This lion is hungry}) \]

K.S. (b): \text{CHE} + \text{HZI-TZU} + \text{NGO-LE}

The rules also allow the choice of an intensifier, to produce, for example, \text{CHE HZI-TZU T'AI NGO-LE} ('This lion is too hungry'), or \text{CHE HZI-TZU HEN NGO-LE} ('This lion is very hungry').

By applying similar rules we can also generate the formative sentence which underlies sentences like \text{LIU-MU JUAN} "The wood of the willow tree is soft", and \text{KUA-R HEN MEI- LI} "Flowers are very beautiful".
3. Basic structure: NP ('Subject') + VP ('be' + 'NP')

這些人是教師

e.g. CHE-SE JEN SHIH CHAO-HZI
(These people are teachers)

K.S. (c): CHE-SE + JEN + SHIH + CHAO-HZI

By applying similar rules we can also generate the formative sentence which underlies sentences like "T'A SHIH HSUEH-SHENG "He is a student", and NIAO SHIH TUNG-WU "Birds are living creatures".
4. Basic structure: NP (Subject) + VP ($V_3$ + Adjective)

他像快樂

\[ T'A \text{ HSIE}N \text{ KWA}I-LE \]
(He looked happy)

By applying similar rules we can also generate the formative sentence which underlies sentences like \[ T'A-MEN \text{ CHUEH-TE MUN} \] "They felt sad", and \[ CHE \text{ HSIE}N \text{ HEN MEI-LI} \] "This seems very beautiful".
5. Basic structure: NP ('Subject') + VP ('be' + 'Adjective')

This structure denotes emphasis in Chinese.

這獅子是餓了

e.g. CHE HZI-TZU SHIH NGO-LE
(This lion is really hungry)

K.S. (e): CHE + HZI-TZU + SHIH + NGO-LE

By applying similar rules we can also generate the formative sentence which underlies sentences like CHE BAN SHU CHUN SHIH HEN-HAU "This book is really very good". "CHO-TZU SHIH TAI KAO-LE "This table is really too high".
6. Basic structure: NP (Subject) + VP (V + NP)

\[ S \rightarrow NP \rightarrow VP \]

e.g. WO YU I KO MEI-MEI
(I have a sister)

By applying similar rules we can also generate the formative sentence which underlies sentences like I NEN YU SHIH-R KO YUEH "A year has twelve months" and WO YU CH'IEN "I have money".
7. Basic structure: NP ("Subject") + VP ("Adv-p" + "Vi")

These birds come from the south

K.S. (g): CHE-SE + NIAO + TSUNG NAN-FONG + LAI

By applying similar rules we can also generate the
formative sentence which underlies sentences like CHE KO
HSUEH-SHENG TSUNG SHANGHAI LAI "This student came from
Shanghai" and T'ATSUNG CHE-LI CHUE "He went away from here".
8. Basic structure: NP ('Subject') + VP ('Vi' + 'Adv-p')

我們坐在椅子上
e.g. WO-MEN TSO TSAI I-TZU SHANG
(We sat on/in chairs)

By applying similar rules we can also generate the
formative sentence which underlies sentences like T'A
TAO TSAI TI SHANG "He fell to the ground" and CHE KO JEN
TSU TSAI CHE-R "This man lives here".
9. Basic structure: VP ('Vi₃' + 'LE')

下 雨了

e.g. HSIA -YU LE
(It's raining)

By applying similar rules we can also generate the formative sentence which underlies sentences like CH'U-T'AI-YANG LE "The sun is coming out" and HSIA K'O LE "The class is over".
10. Basic structure: NP (Subject) + VP [(Adv-p) + Vi₄]

我們 在 學 校 讀 書

e.g. WO-MEN TSAI HSEUH-SHAO DU-SHU.
(We study in school)

By applying similar rules we can also generate the formative sentence which underlies sentences like WO TSAI CHE-R CH'IH, "I eat here" and T'A TSAI FAN-KWAN TZO-KUNG, "He works in a restaurant".
11. Basic structure: NP ('Subject') + VP ['Vt₁' + NP ('Object')]

example: 'WO-MEN HSUEH: CH'UNG-WEN'
(We learn Chinese)

By applying similar rules we can also generate the formative sentence which underlies sentences like 'LAO-WONG CH'IH TUNG-HSI' "Old Wong is eating something" and 'T'IA DA WO' "He hit me".
12. Basic structure:

NP ('Subject') + VP 'Vt' + 'NP' ('Indirect Object') + 
NP ('Direct Object')

e.g. CHE JEN KEI CHE SHAO-HAI I BUN SHU
(This man gave the boy a book)

K.S. (1): CHE + JEN + φ + KEI + CHE + SHAO-HAI + φ + I + BUN + SHU

By applying similar rules we can also generate the
formative sentence which underlies sentences like WANG KEI
T'A CH'IEN "Wong gave him money", and T'A TSIH WO TSIAO-PEN
"He sent me some photos".
13. Basic structure: NP ('Subject') + VP ['Vt₂a' + 'NP' ('Object') Vt₂b + P ('Aux₁')]

  e.g. WO BA T'A DA LE
       (I hit him)

By applying similar rules we can also generate the formative sentence which underlies sentences like WONG BA T'A MA LE "Wong scolded him" and WO BA T'A CH'IH TIAO "I ate it up".
14. Basic structure:

NP ('Subject') + VP ['Vt' + 'NP' ('Object') + Vt +
NP ('Comp')]

e.g. NEI-SE JEN SHUAN T'A WEI MI-SHU
(Those people elected him secretary)

By applying similar rules we can also generate the formative sentence which underlies sentences like T'A I CHE JEN WEI NEI KO JEN "He took this man for that man" and T'A-MEN MING TZIH WEI MA "They named it 'Horse'".
2.C. **Contrastive Analysis** Part I

1. English K.S. (a): The + boy + φ + Past + be + here

   \[
   T \; + \; \text{Nh} \; + \; \phi \; + \; \text{Past} \; + \; \text{be} \; + \; \text{Adv-p} \\\n   \]

   \[
   \_1 \; \_2 \; \_3 \; \_4
   \]

   Chinese K.S. (a): CHE + SHAO-HAI + φ + TSAI + CHE-R

   \[
   T \; + \; \text{Nh} \; + \; \phi \; + \; V_1 \; + \; \text{Adv-p} \\\n   \]

   \[
   \_1 \; \_3 \; \_4
   \]

   **Features:**

   1. English: \( S \rightarrow 1 + 2 + 3 + 4 \)

   Chinese: \( S \rightarrow 1 + 3 + 4 \)

   2. English: \( \{4\text{ must be an adverb of place}. \}

   Chinese: \( \}

   **Meaning:**

   English: \( \{\text{Statement, locational}\}

   Chinese: \( \)

   **Distribution:** English: Restricted to 'be + location'.

   Chinese: Restricted to '\( V_1 \) + location'.

   **Conclusion 1:** Problems of Chinese speaker learning English.

   **Production:**

   1. May omit 'be'.

   2. May always use a preposition after 'be'.

   e.g. "The boy was in here" meaning "The boy was here".

   **Recognition and meaning:** No special problem.
2. English K.S. (b): The + lion + $\emptyset$ + Present + be + hungry

\[ T + \text{Nc} + \emptyset + \text{Present} + \text{be} + \text{Adj} \]

1 2 3 4

Chinese K.S. (b): CHE + HZI-TZU + NGO-LE

\[ T + \text{Nc} + \text{Adj} \]

1 4

Features: 1. English: S $\rightarrow$ 1 + 2 + 3 + 4

Chinese: S $\rightarrow$ 1 + 4

2. English: Intensifier can occur between "2 + 3" and 4.

  e.g. The lion is very hungry.

Chinese: Intensifier can occur before 4.

  e.g. CHE HZI-TZU T'AI NGO-LE
     "This lion is very hungry"

SHIH "be" is always omitted.

Meaning: English:

\[ \text{Statement, descriptive} \]

Chinese:

Distribution: English: Restricted to "be + Adj".

Chinese: Restricted to ordinary descriptive type.

Conclusion 2: Problems of Chinese speaker learning English.

Production: 1. May omit "be".

  e.g. *I sick yesterday.

2. May use unnecessary intensifier before 4.

  e.g. *very perfect
Recognition and meaning: No special problem.

3. English K.S. (c):

These + man + S + Present + be + teacher + S
T + Nh + S + Present + be + Ø + Nh + S
1 2 3 4

Chinese K.S. (c):

CHE-SE + JEN + SHIH + CHAO-HZI
T + Nh + be + Nh
1 3 4

Features: English: S \rightarrow 1 + 2 + 3 + 4
Chinese: S \rightarrow 1 + 3 + 4

If any tense marker is used after 3, the sentence becomes ungrammatical.

Meaning: English:

\{ Statement, identificational and descriptive \}

Chinese:

Distribution: English: Restricted to "be + NP" rules.

Chinese: Restricted to "SHIH + NP" rules.

Conclusion 3: Problems of Chinese speaker learning English.

Production: 1. May omit tense.

2. Will have various kinds of tense problems.

Recognition and meaning: No special problem.
4. English K.S.(d): The + man + S + Present + feel + sad

   T   + Nh   + S   + Present   + Vs   + Adj

   \[ \begin{array}{cccc}
   & 1 & 2 & 3 & 4 \\
\end{array} \]

Chinese: K.S. (d): T'A + \emptyset + HSIEN + KWAI-LE

   Nh   + \emptyset   + V_3   .   Adj

   \[ \begin{array}{cc}
   & 1 & 3 & 4 \\
\end{array} \]

Features:

1. English: S \rightarrow 1 + 2 + 3 + 4

   Chinese: S \rightarrow 1 + 3 + 4

2. English: Intensifier + Vs is ungrammatical

   e.g. *He very feels sad.

   Chinese: Intensifier + V_3 + is grammatical.

   e.g. T'A HAU HSIEN KWAI-LE

Meaning:

- English: Descriptive type
- Chinese:

Distribution:

- English: Restricted to Vs rules.
- Chinese: Restricted to V_3 rules.

Conclusion 4: Problems of Chinese speaker learning English.

Production:

1. May apply "intensifier" + "2 + 3" to English.

2. May ignore 2.

Recognition and meaning: No special problem.
5. English K.S. (e):

The + boy + $\emptyset$ + Past + become + a + man + $\emptyset$

$T + Nh + \emptyset + Past + Vs + T + Nh + \emptyset$

1 2 3 4

Chinese: No equivalent structure.

Features: $S \rightarrow 1 + 2 + 3 + 4$

Meaning: Narrative statement.

Distribution: Restricted to a very small class of verbs.

  e.g., become, remain.

Conclusion 5: Problems of Chinese speaker learning English.

Production: 1. Will think that there is no difference between the following two structures:

   (a.) NP + Aux + Vs + NP
   (b.) NP + Aux + Vs + Adj

Actually (a) is different from (b), for in a fuller grammar, Vs would have sub-classes, because Vs with an adjective as its complement includes a larger number of verbs than "Vs + NP"; e.g., look, appear, taste, grow. Thus, we can say "It looks good", "They grew troublesome"; but not *"It looks an apple" and *"They grew boys". Chinese students might produce such non-English sentences. All Vs structures in Chinese are transforms rather than kernels.

2. Will have difficulty in distinguishing it from "be" structures, especially in translating.

Recognition and meaning: No special problem.

The + bird + S + Present + come + from the south

\[
\begin{array}{cccc}
T & Nc & S & Vi & Adv-p \\
1 & 2 & 3 & 4
\end{array}
\]

Chinese K.S. (g): CHE-SE + NIAO + TSUNG-NAN-FONG + LAI

\[
\begin{array}{cccc}
T & Nc & Adv-p & Vi \\
1 & 4 & 3
\end{array}
\]

Features:

1. English: \( S \rightarrow 1 + 2 + 3 + 4 \)

Chinese: \( S \rightarrow 1 + 4 + 3 \)

2. English: \( 4 \) occurs initially; when it occurs between 1 and \( (2 + 3) \), the phrase is adjectival rather than adverbial.

Chinese: \( 4 \) occurs before 3, never initially or finally.

Meaning:

English:

\[
\begin{aligned}
& \text{Statement} \\
\end{aligned}
\]

Chinese:

\[
\begin{aligned}
& \text{Statement} \\
\end{aligned}
\]

Distribution:

English: Restricted to Vi + Adv-p

Chinese: Restricted to Vi

Conclusion 6: Problems of Chinese speaker learning English.

Production:

1. May have difficulty in discriminating "Birds from the south" and "Birds ....... from the south."

2. May have difficulty in handling 2.

Recognition and meaning: May mistake adjective phrase for adverb phrase,
e.g. may think "Birds from the south come" = "Birds come from the south."

7. English K.S. (g):
The + student + ∅ + Past + learn + English + ∅

\[ T + N_h + ∅ + Past + V_t + N_c + ∅ \]

1 2 3 4

Chinese K.S. (k): WO + MEN + HSUEH + CH'UNG-WEN

\[ N_h + MEN + V_t + N_c \]

1 3 4

Features: 1. English: S \(\rightarrow\) 1 + 2 + 3 + 4
Chinese: S \(\rightarrow\) 1 + 3 + 4

2. English:

\(\{\) 4 is direct object

Chinese\(\}

Meaning: English

\(\{\) Narrative statement

Chinese\(\}

Distribution: English

\(\{\) 4 is obligatory

Chinese\(\}

**Conclusion 7:** Problems of Chinese speaker learning English.

Production: 1. May mistake V₁ for Vₜ

\text{e.g.} \ He + Past + swim + a + pool + ∅ (wrong)

\text{He} + Past + swim + in + a + pool + ∅ (right)

Recognition and meaning: No special problem
8. English K.S. (h):

The + man + $\emptyset$ + Past + give + the + boy + $\emptyset$ + a + book + $\emptyset$

\[ T + Nh + \emptyset + Past + Vta + T + Nh + \emptyset + T + Nc + \emptyset \]

1 2 3 4 5

Chinese K.S. (l):

CHE + JEN + $\emptyset$ + KEI + CHE + SHAO-HAI + I + BAN-SHU

\[ T + Nh + \emptyset + Vt_1 + T + Nh + T + Cl + Nc \]

1 2 3 4 5

Features:

1. English: S $\rightarrow$ 1 + 2 + 3 + 4 + 5

Chinese: S $\rightarrow$ 1 + 3 + 4 + 5

2. English:

\[ \begin{cases} \text{Indirect object 4 precedes direct object 5} \\ \text{Chinese:} \end{cases} \]

Meaning:

English:

\[ \begin{cases} \text{Narrative statement} \\ \text{Chinese:} \end{cases} \]

Distribution:

English: Restricted to Vta rules.

Chinese: Restricted to Vt$_1$ rules.

Conclusion 8: Problems of Chinese speaker learning English.

Production: May mix up this structure with a passive form in Chinese.

*e.g.* T'A KEI WO MA-LE

'He' 'give' 'me' 'scold'

("He was scolded by me")

Recognition and meaning: No special problem.
9. English String (i):

The + man + ϕ + Past + consider + Comp ('a + fool + ϕ')

T + Nh + ϕ + Past + Vta + Comp ('T + Nh + ϕ')

1 2 3 5

the + servant + ϕ

T + Nh + ϕ

4

Chinese: No equivalent basic structure.

Features: 1. This English structure involves two kernel strings: NP + Past + Vta + X "The man considered X"

NP₁ + Past + be + NP₂ "The servant was a fool"

Hence, NP + Past + Vta + to + be + NP₂ + NP₁ →

"The man considered to be a fool the servant"

NP + Past + Vta + NP₂ + NP₁ (to be is deleted)

"The man considered a fool the servant"

By obligatory transformational rule:

NP + Past + Vta + NP₁ + NP₂

By affix-moving rule:

NP + Vta + Past + NP₁ + NP₂

We reach: T + Nh + ϕ + Vta + Past + T + Nh + ϕ

The man considered the servant

T + Nh + ϕ

a fool

2. The Comp may be derived from either a NP or (Intensifier) + Adj".

e.g. The man considered the servant (very) foolish.

NP + Past + Vta + Comp ' (Int) + Adj' + NP₁
By the same rules, we arrive at:

\[ T + Nh + \emptyset + Vta + Past + T + Nh + \emptyset + (Int) + Adj \]

The man considered the servant very foolish

Meaning: Statement, reporting type.

Distribution: "Vta + NP + Comp" remains "Vta + Comp + NP" when the NP is long and complicated.\(^{10}\)

e.g. He regarded as insolent anyone who ventured to disagree with him.

**Conclusion 9**: Problems of Chinese speaker learning English.

Production: May think "to be" between 4 and 5 is the only possible correct structure.

Recognition and meaning: May interpret incorrectly.

   e.g. May think that "a fool" in the sentence "The man considered the servant a fool" is in apposition to "the servant".

10. English String (j):

\[ \begin{align*}
\text{The} & + \text{club} + \emptyset + \text{Past} + \text{elect} + \text{the} + \text{man} + \emptyset + \text{Comp} \\
T & + \text{Nc} + \emptyset + \text{Past} + \text{Vtc} + T + Nh + \emptyset + \text{Comp} \\
1 & \quad 2 \quad 3 \quad 4 \\
('\emptyset & + \text{secretary} + \emptyset') \\
T & + Nh + \emptyset \\
5
\end{align*} \]

Chinese K.S. (n):

\[
\begin{align*}
\text{NEI} - \text{SE} + \text{JEN} + \text{SHUAN} + \text{T'A} + \emptyset + \text{WEI} + \text{MI-SHU} + \emptyset \\
T + \text{Nh} + \text{Vt}_3 + \text{Nh} + \emptyset + \text{Vt}_3 + \text{Nh} + \emptyset
\end{align*}
\]

Features: 1. English: \( S \rightarrow 1 + 2 + 3 + 4 + 5 \)

Chinese: \( S \rightarrow 1 + 3a + 4 + 3b + 5 \)

2. English: This structure involves two kernel strings: \( \text{NP} + \text{Past} + \text{Vtc} + \text{NP}_1 + X \) "The club elected the man"

\[ \text{NP}_1 + \text{Past} + \text{be} + \text{NP}_2 \] "The man was secretary"

Hence, \( \text{NP} + \text{Past} + \text{Vtc} + \text{NP}_1 + \text{to}. + \text{be} + \text{NP}_2 \rightarrow \)

"The club elected the man to be secretary"

\[ \text{NP} + \text{Past} + \text{Vta} + \text{NP}_1 + \text{NP}_2 \] (to be is deleted)

"The club elected the man secretary"

Chinese: This structure is a kernel. 3a ... 3b is a split form.

Meaning: English \[
\begin{align*}
\text{Statement, reporting}
\end{align*}
\]

Chinese \[
\begin{align*}
\text{Distribution: English: Restricted to Vtc rules.}
\end{align*}
\]

Chinese: 4 must be placed between 3a and 3 b.

Conclusion 10: Problems of Chinese speaker learning English.

Production: 1. May consider Vtc a split form.

2. May think "Vtc + to be" is the only correct structure. e.g. The club chose the man to be their secretary.
Recognition and meaning: May interpret incorrectly.

e.g. May think that "their secretary" in the sentence "The club chose the man their secretary" is in apposition to "the man".
3.A. The English NP

In this fragment of English the rewrite rules for the NP are as follows:

\[
\begin{aligned}
\text{NP} & \rightarrow \left\{ \begin{array}{c}
\text{sing} \\
\text{pl}
\end{array} \right. \\
\text{NP}_{\text{sing}} & \rightarrow T + N + \emptyset \\
\text{NP}_{\text{pl}} & \rightarrow T + N + S
\end{aligned}
\]

Here it is necessary to further analyse N in a narrower way than done earlier in this paper.\(^{11}\) The rules can be as follows:

\[
\begin{aligned}
\text{N} & \rightarrow \left\{ \begin{array}{c}
\text{Ncon} \\
\text{Nab} \\
\text{An} \\
-\text{An}
\end{array} \right. \\
\text{An} & \rightarrow \left\{ \begin{array}{c}
\text{Hu} \\
-\text{Hu}
\end{array} \right. \\
\text{Hu} & \rightarrow \text{boy, girl, John, I} \\
-\text{Hu} & \rightarrow \text{dog, cat, ant} \\
\text{Nab} & \rightarrow \text{sincerity, justice}
\end{aligned}
\]

a. We have learned previously that a kernel English sentence consists of a noun phrase plus a verb phrase (S→ NP + VP). An English NP may be constituted of one single

\(^{11}\) Here I am following Chomsky's later analysis of the NP demonstrated in Aspects of the Theory of Syntax (Massachusetts: The M.I.T. Press, 1965).
word or a group of words. For instance, 'the woman', 'an apple', 'those three books', 'John', and 'I' are all NP's. We also know now that the main structures in English NP's are determiners, nouns, and pronouns.

b. The first item in an NP is the T. The symbol T stands for the word-determiner. In a detailed analysis of the T, we can represent it by the following rule:

\[ T \rightarrow (T_{Art}) + (T_{demon}) + (T_{quan}) \]

Note: Demon is the abbreviation for the word "demonstrative"

quan " " " " " " " " "quantity."
Art " " " " " " " "article."
def " " " " " " " "definite."
Indef " " " " " " " "indefinite."

Article can be definite or indefinite or \( \emptyset \). "the" is a definite article, while "a", "an", "some" are indefinite articles. Hence,

In English "this", "these", "that" and "those" are examples of \( T_{demon} \), while "one", "three", and "some" when occurring before N's are examples of \( T_{quan} \).

The second item in an NP is the noun. A noun can represent something animate or inanimate, or a name for an abstraction. Most concrete nouns can be singular or plural. Now, let us analyse the examples that we have
mentioned previously in this section.
those three books \( \leftarrow NP \)

\[ \begin{array}{c}
T \\
T_1 \quad T_2 \quad T_3 \\
\emptyset \quad T_{demon} \quad T_{quan} \\
\emptyset \quad T_{Art} \quad T_{con} \quad -An \quad S
\end{array} \]

John \( \leftarrow NP \)

\[ \begin{array}{c}
T \\
T_{Art} \\
\emptyset \quad Hu \\
\emptyset
\end{array} \]

I \( \leftarrow NP \)

\[ \begin{array}{c}
T \\
T_{Art} \\
\emptyset \quad Hu \\
\emptyset
\end{array} \]
3.B. The Chinese NP

The rewrite rules for the Chinese NP are as follows:

\[ \text{NP} \rightarrow \begin{cases} \text{NP}_{\text{sing}} \\ \text{NP}_{\text{pl}} \end{cases} \]

\[ \text{NP}_{\text{sing}} \rightarrow (T) + (\text{Cl}_{\text{sing}}) + \begin{cases} \text{Nh +} \emptyset \\ \text{Nh + (MEN)} \\ \text{Nh + (Nab)} \end{cases} \]

\[ \text{NP}_{\text{pl}} \rightarrow (T) + (\text{Cl}_{\text{pl}}) + \begin{cases} \text{Nc} \\ \text{Nab} \end{cases} \]

a. We have seen in the previous section that a kernel Chinese sentence consists of a noun phrase and a verb phrase, and that sometimes the noun phrase does not occur at all. Hence, \( S \rightarrow (\text{NP}) + \text{VP} \). Just like English, a Chinese NP may be constituted of one single word or a group of words. For instance, CHE FUJEN "this woman", I-KO PING-GWO "an apple", NEI SAN-BUN SHU "those three books", CHAO "Chao", WO "I" are NP's. We see here that the chief structures in Chinese NP's are determiners, classifiers, nouns, and pronouns.

b. The first item in a Chinese NP is the T. The symbol T stands for the word-class "determiner".

\[ T \rightarrow (T_{\text{demon}}) + (T_{\text{quan}}) \]

See note on page 57 for explanation of abbreviations.

CHE "this", "these", NEI "that", "those" are examples of demonstratives as T's, while I "one", SAN "three" occurring
before nouns are examples of $T_{quan}$.

The second item in a Chinese NP is the Cl. Cl stands for "classifier". There are two kinds of Cl's: singular and plural. The Cl has many surface forms and is entirely arbitrary. It is only an optional structure in a Chinese NP.

\[ \text{e.g.} \quad \text{CHE} \quad \text{FONG-TZU} \quad \text{HEN} \quad \text{DA} \]

\[ T_{\text{dem}} \quad \text{Nc} \quad \text{Inten.} \quad \text{Adj} \]

"This" "house" "very" "big"

CHE TSO FONG-TZU HEN DA

\[ T_{\text{dem}} \quad \text{Cl} \quad \text{sing} \quad \text{Nc} \quad \text{Inten.} \quad \text{Adj} \]

"This" "house" "very" "big"

CHE NEUNG TSO FONG-TZU HEN DA

\[ T_{\text{dem}} \quad T_{quan} \quad \text{Cl}_{\text{pl}} \quad \text{Nc} \quad \text{Inten.} \quad \text{Adj} \]

"This" "two" "" ""house" "very" "big"

The final item in a Chinese NP is the N. An N can be either a human being, or countable thing, or a name for an abstraction. In Chinese, the only morphological form that the Nh has is "MEN" as a plural marker; the other N's have no plural forms. "MEN" is only a marker of indefinite plural. In other words, if the number is definite, "MEN" may not be applied to any Nh. For instance, we say HSUEH-SHENG-MEN "students", which is an instance of Nh + MEN, and SAN-KO HSUEH-SHENG "three students", which is an instance of T + Cl + Nh.

We now analyse the examples mentioned previously in this section.
CHE FUJEN ← NP
"this woman"
sing

T
N
demon Nh

CHE FUJEN
'this' 'woman'

I-KO PING-GWO ← NP
"an apple"
sing

T
Cl N

T quan Cl sing Nc

I KO PING-GWO
'one' 'Cl' 'apple'
"those three books"

"Chao"

"I"
3.C. Contrastive Analysis Part II

a. Rules:

English: \( NP \rightarrow \left\{ \begin{array}{l} NP_{\text{sing}} \\ NP_{\text{pl}} \end{array} \right\} \)

Chinese: \( NP \rightarrow \left\{ \begin{array}{l} NP_{\text{sing}} \\ NP_{\text{pl}} \end{array} \right\} \)

English: \( NP_{\text{sing}} \rightarrow T + N + \emptyset \)

Chinese: \( NP_{\text{sing}} \rightarrow (T) + (C_{\text{sing}}) + \left\{ \begin{array}{l} Nh + \emptyset \\ Nc \\ Nab \end{array} \right\} \)

English: \( NP_{\text{pl}} \rightarrow T + N + S \)

Chinese: \( NP_{\text{pl}} \rightarrow (T) + (C_{\text{pl}}) + \left\{ \begin{array}{l} Nh + (MEN) \\ Nc \\ Nab \end{array} \right\} \)

English: \( N \rightarrow \left\{ \begin{array}{l} Nh \\ Nc \\ Nab \end{array} \right\} \)

Chinese: \( N \rightarrow \left\{ \begin{array}{l} Nh \\ Nc \\ Nab \end{array} \right\} \)

b. General Feature:

1. English: Both \( Nh \) and \( Nc \) have plural forms.
   Chinese: Only \( Nh \) has the plural marker.

2. English: The plural rule is obligatory for expanding an \( NP_{\text{pl}} \).
   Hence, \( T + \left\{ \begin{array}{l} Nh \\ Nc \\ \emptyset \end{array} \right\} \)

Chinese: The plural rule is optional for expanding an \( NP_{\text{pl}} \).
Hence, \( (T) + (Cl) + Nh + \{\emptyset - \{\text{MEN}\}\} \)

3. **English:** \( T \) includes \( T_{Art} \) (Article, e.g. a, the)
**Chinese:** There is no structure equivalent to the **English** \( T_{Art} \).

4. **English:** There is no structure equivalent to the **Chinese** Cl.
**Chinese:** Though Cl is optional, it is usually placed in an NP.

**Conclusion II:** Problems of Chinese speaker learning English.

**Production:**

1. Will have difficulties in handling \( T_{Art} \).
2. Will substitute \( T_{demon} \) for \( T_{Art} \).
   e.g., 'That boy is here' for 'The boy is here'.
3. May think Cl occurs in an English NP.
   e.g., May always say "a copy of a book," and not realize that a book is adequate.
4. May consider the plural rule optional and therefore omit the plural marker, especially if the
   \( T_{quan} \) ("three) is definitely plural, e.g.,
   the three book.
5. May apply the plural rule to Nab, e.g. *He has wisdoms.

**Recognition and Meaning:** May make mistakes similar to those in production.
4. **Personal Pronouns**

Generally speaking, pronouns are substitutes for NP's. For example, in such sentences as "The little boy is brave. He likes adventures!" we have "The little boy" as $NP_1$, and "He" as $NP_2$. Further examination of these two sentences tells us that the $NP_2$ stands for $NP_1$, so "The little boy" $\rightarrow$ "He". The underlying structure of "He" involves the meaning "The little boy", according to the context. Such relationships go beyond a sentence grammar.

A. **English Personal Pronouns**

English pronouns can be of various kinds, and most of them are transforms rather than basic structures. For instance, "I have a book" $\rightarrow$ "my book" $\rightarrow$ "mine" (sing).

\[ \text{"I have books" $\rightarrow$ "my books" $\rightarrow$ "mine" (pl.)}. \]

Pronouns like "mine", "yours", and "ours" are traditionally known as "possessive pronouns". Other pronouns such as "demonstrative pronouns" and "relative pronouns" contain even more complicated transformations. Therefore, here only "personal pronouns" will be analysed and compared with Chinese personal pronouns.

1. **Simple**

Speaker: I "subjective"

me "objective" (i.e. I + and "objective" case marker, m.)

This structure (i.e., Pronoun + m) involves marking NP (object) $\rightarrow$ NP + m when NP = Pronoun. The same rule
applies when Pronoun follows a preposition, e.g., to me, with them, etc.

I + \emptyset + m \rightarrow me

you +_S^\emptyset + m \rightarrow you

he/she/it + \emptyset + m \rightarrow him/her/it

I + S + m \rightarrow us

he/she/it + S + m \rightarrow them

e.g. I ate the soup.

Form: \( X_1 + \text{Aux} + V + Y \)
e.g. The teacher helped me.

Form: $Z + \text{Aux} + V + \frac{X}{2}$
e.g. The teacher gave me a book.

Rule: \(NP_1 \rightarrow NP_2\) becomes \(NP_2 \rightarrow NP_1\). This rule is obligatory.

When the rule is applied, we reach this string:

The + teacher + \(\emptyset\) + Past + give + \(\emptyset\) + I + \(\emptyset\) + m + a + book + \(\emptyset\)

Form: \(Z + Aux + V + X_2 + Y\)
e.g. The teacher dined with me.

Form: $Z + \text{Aux} + V + \text{Prep.} + X_2$
Hearer: You "subjective"

You + Ø + m → you "objective"

e.g. You ate the soup.

By applying similar rules as before we get the following string:

Ø + You + Ø + Past + eat + the + soup + Ø

Form: \( X_1 + \text{Aux} + V + Y \)

e.g. I saw you.

The teacher will give you a book.

The teacher will dine with you.

And by applying similar rules as before, we get these strings:

The + teacher + Ø + Pres. + will + give + Ø + you + Ø + m + a + book + Ø

The + teacher + Ø + Pres. + will + dine + with + Ø + you + m + Ø

Forms: \( Z + \text{Aux} + V + X_2 \)
\[ Z + \text{Aux} + V + X_2 + Y \]
\[ Z + \text{Aux} + V + \text{Prep} + X_2 \]

Speaker-Hearer: You and I \(\rightarrow\) We "subjective"
\[ \text{You} + \emptyset + m \text{ and I} + \emptyset + m \rightarrow \text{us} "objective" \]
e.g. We ate the soup.
By applying similar rules as before, except \(NP \rightarrow NP_{pl}\),
we get the following string:
\[ \emptyset + I + S + \text{Past} + \text{eat} + \text{the} + \text{soup} + \emptyset \]
Form: \(X_1 + \text{Aux} + V\)
e.g. The teacher helped us.
The teacher will give us some books.
The teacher will dine with us.
By applying similar rules as before, we get the following strings:
The + teacher + \emptyset + \text{Pres.} + \text{will} + \text{give} + \emptyset + I + S + m
+ some + book + S.
The + teacher + \emptyset + \text{Pres.} + \text{will} + \text{dine} + \text{Prep.} + \emptyset + I
+ S + m
Forms: \(Z + \text{Aux} + V + X_2\)
\[ Z + \text{Aux} + V + X_2 + Y \]
\[ Z + \text{Aux} + V + \text{Prep} + X_2 \]
Non-Speaker-Hearer: he/she/it "subjective"
\[ \text{he/she/it} + \emptyset + m \rightarrow \text{him/her/it} "objective" \]
e.g. He/She/It ate the soup.
By applying similar rules as before, we get the following string:
\[ \emptyset + \text{He/She/It} + \emptyset + \text{Past} + \text{eat} + \text{the} + \text{soup} + \emptyset \]
Form: $X_1/X_{a1}/X_{b1} + \text{Aux} + V + Y$

e.g. The teacher helped him/her/it.

The teacher will give him/her/it a book.
The teacher will dine with him/her/it.

By applying similar rules as before, we get the following strings:

The + teacher + $\emptyset$ + Past + help + $\emptyset$ + he/she/it + $\emptyset$ + m

The + teacher + $\emptyset$ + pres. + will + give + $\emptyset$ + he/she/it + $\emptyset$ + m + a + book + $\emptyset$

The + teacher + $\emptyset$ + Pres. + will + dine + with + $\emptyset$ + he/she/it + $\emptyset$ + m

Forms: $Z + \text{Aux} + V + X_2 / X_{a2} / X_{b2}$

$Z + \text{Aux} + V + X_2 / X_{a2} / X_{b2} + Y$

$Z + \text{Aux} + V + \text{Prep.} + X_2 / X_{a2} / X_{b2}$

2. **Plus Others**

Same rules as those used in the foregoing section also generate the following pronouns.

**Speaker:** Others and I $\{S\} \rightarrow$ we "subjective"

Others and I $\{S\} + m \rightarrow$ us "objective"

**Hearer:** You $\{S\}$ and others --- you "subjective"

You $\{\emptyset\} + m$ and others $\rightarrow$ you "objective"

**Speaker-Hearer:**

You $\{\emptyset\}$ and others and I $\{S\} \rightarrow$ we "subjective"

You $\{\emptyset\}$ and others and I $\{\emptyset\} + m \rightarrow$ us "objective"
Non-Speaker-Hearer:

he/she/it + \{\emptyset\} and others $\rightarrow$ they "subjective"

Others and he/she/it + \{\emptyset\} + m $\rightarrow$ them "objective"
4.B. Chinese Personal Pronouns

Chinese personal pronouns have no case distinctions. One important difference, the fact that adjectives can be placed before a Chinese personal pronoun, must be mentioned, although it will not be analysed here. The following show the generation of Chinese personal pronouns.

1. Simple

Speaker: WO "I, me"

e.g. WO CH'IH TONG

"I" "eat" "soup"

Form: X + V + Y
e.g. LAOZE BONG WO "The teacher helped me"

Form: Z + V + X
e.g. LAOZE GEI WO I-BUN SHU

"teacher" "give" "me" "a" "book"

Form: Z + V + X + Y

Note: There is no preposition in Chinese, so no change for case form as after prepositions in English.

Hearer: NI/NIN "you"

Note: NIN is the polite form in Chinese.

Speaker-Hearer: WO-MEN "we", "us"

Non-Speaker-Hearer: T'A "he/she", "him/her"

2. Plus Others

Speaker: WO-MEN "we", "us"

Hearer: NI-MEN/NIN "you"; note: NIN-MEN is not used.

Speaker-Hearer: WO-MEN "we", "us"
Non-Speaker-Hearer: T'A-MEN "they", "them"

Same rules will also generate the Chinese personal pronouns in the following sentences.

e.g. NI/NIN

- "you"
- T'A "he/she"
- CH'IH TONG "eat" "soup"

NI/NIN

- LAOZE GEI "teacher" "give"
- "you" "he/her"
- I-BUN SHU "a" "book"

NI/NIN

- LAOZE BONG "teacher" "help"
- "you" "he/her"

WO-MEN

- "we"

NI-MEN/NIN

- "you"
- T'A-MEN "they"
- CH'IH TONG "eat" "soup"

WO-MEN

- "us"

LAOZE GEI

- "teacher" "give"
- "you" "book"
- T'A-MEN "them"
4.C. **Contrastive Analysis Part III**

General forms of personal pronouns in both languages:

**English:** $X_1 + \text{Aux} + V + Y$

$Z + \text{Aux} + V + X_2$, except in the environment of Hearer: i.e. "you"

**Chinese:** $X + V + Y$

$Z + V + X$

General Feature:

**English:** Case inflections except in the environment of Hearer, that is, "you".

**Chinese:** No case inflections.

**Conclusion 12:** Problems of Chinese speaker learning English.

**Production:**

1. Will have difficulties in remembering the case counterparts of different pronouns.

2. Will have difficulties in handling subject-predicate agreement.

3. May think "Adj + I" correct. e.g. *The big he

**Recognition and meaning:** No special problems.
5. The VP

A. The Aux

a. Tense and Time.

The VP in English can be rewritten as

\[
\text{VP}_1 \rightarrow \text{be}\{\text{Pred}\} \quad \text{Aux}\{\text{Adv}_1\} \quad \text{VP}_1
\]

The VP in Chinese can be rewritten as

\[
\text{Aux}\{\text{Intensifier} + \text{Adj}\} \quad (\text{Aux}_1) \quad \text{be}\{\text{Adj}\} \quad \text{NP}
\]

We can now analyse step by step these VP's. "Aux", the symbol for "auxiliary", is the first item in the rules in both languages. Thus we will deal with it first.

In English Aux can be rewritten as C ("Tense" and "number") -- M ("Modal") -- (have + en) -- (be + ing). Items within parentheses are optional in the grammar.

In Chinese, Aux can be (Aux), optional as the first item of the string, and/or (Aux_1), optional as the last item of the string. Aux is rewritten as (M) ("optional, Modal"); Aux_1 is rewritten as (P) ("optional, Particle"). Particles used after Chinese verbs are "tense markers", or "tense morphemes". Unlike English, no tense morphemes can be added to M, so Chinese needs no C before M, nor does the language need a "number marker" in the Aux or Aux_1.
As we see that both M and P are optional in Chinese, we understand that tense morphemes in Chinese do not necessarily occur; even when they do they need not function consistently to give meanings of "tense". For instance, in English, "leave + Past" is always past tense (= left), while in Chinese, "CHYU + LE" is sometimes past and sometimes something else, depending upon the context. Even "CHYU" itself can be past when the time for action is denoted by an adverb of time.

Both English and Chinese have two tenses: present and past. We may have read other grammar books which speak of more than two tenses, adding, for instance, the future tense and the perfect tense. However, modern linguists note that the future, perfect, and similar structures are of phrasal construction, and therefore treated differently and separately from the present and the past tenses.

The following examples will illustrate some uses and the structures of the two tenses in both languages.

English: The boy eats rice.

The + boy + Ø + Present + S + eat + Ø + rice + Ø

The boy ate rice.

The + boy + Ø + Past + Ø + eat + Ø + rice + Ø

Chinese: SHAO HAI CH'IH FAN

SHAO-HAI + Ø + CH'IH + FAN

'boy' 'eat' 'rice'
English: The boys eat rice.

The + boy + S + Present + 0 + eat + 0 + rice + 0
The boys ate rice.

The + boy + S + Past + 0 + eat + 0 + rice + 0

Chinese: SHAO-HAI (MEN) CH'IH FAN

SHAO-HAI + (MEN) + CH'IH FAN

'boy' 'pl' 'eat' 'rice'

English: The boy comes.

The + boy + 0 + Present + S + come
The boy came.

The + boy + 0 + Past + 0 + come

Chinese: SHAO-HAI LAI

SHAO-HAI + 0 + Present + LAI

'boy' 'come'

SHAO-HAI LAI LE

SHAO-HAI + 0 + Past + LAI

'boy' 'come'

English: The boys come.

The + boy + S + Present + 0 + come
The boys came.

The + boy + S + Past + 0 + come

Chinese: SHAO-HAI (MEN) LAI

SHAO-HAI + (MEN) + Present + LAI

'boy' 'pl' 'come'

SHAO-HAI (MEN) LAI LE

SHAO-HAI + (MEN) + Past + LAI

'boy' 'pl' 'come'
b. Modal.

In English, with the kind of rule we have been using to this point, M can be rewritten only as: can, may, will, shall, must. Each, except must, has a past form: could, might, would, should. All modals do not show the S form on the surface structure. To illustrate the kind of work the modal does, we can represent such sentences as "The boys will come" and "The boy would come" with trees of derivation as follows:

```
S
  NP
    NP
      NP
        Aux
          VP
            VP
              T
                N
                  S
                    Nh
                      Present
                        Ø
                            will
                                      come

S
  NP
    NP
      NP
        Aux
          VP
            VP
              T
                N
                  Ø
                    Nh
                      Past
                        Ø
                            will
                                      Vi
                                  come
```

In Chinese, M —> CHIANG, KW'AII, YEAO ... and many others. Unlike English, a Chinese modal can be any word that denotes time of action. The following tree of derivation will show the function of the Chinese modal in a sentence such as HAI-TZU YEAO LAI LE (The boys will come.)

The third item in Aux in English is ('have + en'). In a sentence such as "The students have eaten", there are two words in the VP, 'have eaten'. But if we represent this VP with the rewrite rules that we have been using, it actually consists of the following units:

Pres + Plural + have + en + eat. The "en + eat" is what is called the past participle. Many English verbs have the same forms for the past participle and the past tense. "en" here is used as a signal of the past participle, so "en + arrive" —> "arrived", "en + walk" —> "walked", and "en + go" —> "gone" on the surface level.
Now we come to a more important point, and that is "en + verb" should follow "C + have" and the formula is always "C + have + en + verb". Kernel sentences like "John had spoken", "They had gone", "Mary has arrived" all contain the element "have + en". An obligatory rule transfers the affixes (e.g., -ed or -s for C, and -en) to the correct positions.

In Chinese there is no "have + en" structure. The simple past is always used whether the action is completed just now or long ago.

e.g. He came

He has come.

He ate.

He has eaten.

d. (be + ing)

Like "have" and "en", "be" and "ing" always go together. In the kernel sentence "He is eating", the VP is "is eating", which is represented by this formula: Present + Ø + be + ing + eat. The same affix-moving rule applies. "ing + V" forms are called present participles, and all present participles are completely regular in form.

The VP's in the following sentences all contain "be + ing": I am reading.

He is laughing.

Henry was sleeping.

In Chinese the "TSAI - V" is a structure that has some semantic equivalence to the English "be + ing". "TSAI"
always goes before the verb. Let us look at this sentence:

**WO TSAI K'AN-SHU** "I am reading", and compare it with "**WO YEAO K'AN-SHU** "I will read a book". We have these two strings:

\[
\text{WO TSAI K'AN-SHU} \leftrightarrow \text{Nh} + \emptyset + M + \text{Vi}_1
\]

'I' 'in' 'read'

\[
\text{WO YEAO K'AN-SHU} \leftrightarrow \text{Nh} + \emptyset + M + \text{Vi}_1
\]

'I' 'will' 'read'

Both **TSAI** and **YEAO** indicate something about the time of action, and occur in similar positions. They obviously belong to the same structure in the Aux. They are both modals. Now let us look at these sentences:

He is was laughing. \( \text{T'A TSAI SHAO} \)

He is was writing. \( \text{T'A TSAI SE-TZU} \)

He is was eating. \( \text{T'A TSAI CH'IH} \)

We see that just like English "be + ing", "**TSAI** + V" structures are also regular in Chinese, but contain no tense morpheme at all.

Finally, it is possible in English to have a VP containing all the elements of Aux. For instance, in the VP "should have been reading", we have "C + M + have + en + be + ing + Vi". This can be illustrated by the following example.
e.g. The boy should have been reading.

Kernel string:

The + boy + ø + Past + ø + shall + have + en + be + ing + read

By T-Affix rule, we reach:

The + boy + ø + shall + Past + ø + have + be + en + read + ing

By morphophonemic rule, we arrive at;

The boy should have been reading.
In Chinese, it is possible to have a VP containing all elements of the Aux since there are only two of them.

e.g. T'A MING-T'IEN CHE SHIH-HAUH HUI TAO-LE
(He will have arrived by this time tomorrow)
e. **Contrastive Analysis  Part IV**

**Aux**

a. **Rules:**

- **English:** \( \text{Aux} \rightarrow C - (M) - (\text{have} + \text{en}) - (\text{be} + \text{ing}) \)
- **Chinese:** \( \text{Aux} \rightarrow (M) - (P) \)

b. **General Features:**

1. **English:** Tense is obligatory and is attached to the first Aux, if one is chosen.
   
   **Chinese:** Tense is optional and follows the verb always.

2. **English:** Modals are **can, may, will, shall, must**.
   
   **Chinese:** Modals can be any words denoting time of action.

3. **English:** The past participle is restricted to "have + en" rule.
   
   **Chinese:** No similar structure.

4. **English:** When "be" is used as an Aux, "ing" must also be applied to the verb.
   
   **Chinese:** 'TSAI + Verbal' is a structure similar to "be + ing".

5. **English:** Elements like "M, have, be" may contain tense.
   
   **Chinese:** No tense markers may be added to modals.

**Conclusion 13:** Problems of Chinese speaker learning English.

**Production:**

1. Will make mistakes of various kinds in tenses.
2. May have difficulties in handling modals and their
past forms, especially "shall, should", "will, would".
3. Will have difficulties in "have + en".
4. Will have difficulties in the "C + M + be + ing" form. e.g. He will be leaving.
5. Will not understand that the expression of future time may have any of these forms:
   He is leaving.
   He will leave.
   He is about to leave.
Recognition and meaning: 1. Will make mistakes in tenses.
   2. Will make mistakes in modals.
   3. Will fail to understand the "C + M + be + ing" forms.
   4. Will have difficulties in interpreting "have + en" forms.
B. Classification of Verbs

a. English Verbs.

We now come to the last part of the VP, and that is the nuclear verb. Chomsky separates be from all other verbs. For the purpose of comparison, we will use the term "copula" (Vcop) in the traditional sense to include be, and Vs of the given rules. The following examples will illustrate the functions of the Vcop, the Vi, and the Vt.

Obviously be does not behave like the VP₁ (i.e., the V's) class. For instance, Vt has to conform to this rule: Vt + NP, while the Vi can stand alone. The verb be is restricted to this rule:

\[
\begin{align*}
\text{Aux} + \text{be} & \left\{ \begin{array}{l}
\text{NP} \\
\text{Adj} \\
\text{Adv} \\
\text{Prep. Phrase}
\end{array} \right. \\
\end{align*}
\]

Generally, be + NP differs from Vt + NP in these ways:

be + NP: the NP here is a complement, and the two NP's have the same reference in the actual world. The whole structure is non-passivable, i.e., it cannot undergo the passive transform.

Vt + NP: the NP here is an "action-receiver"; the two NP's do not have the same reference. The whole structure allows the passive transformation:

\[
\text{NP}_1 + \text{Vt} + \text{NP}_2 \rightarrow \text{NP}_2 + \text{be} + \text{en} + \text{Vt} + \text{by} + \text{NP}_1
\]
In English, \( \text{be} + \text{Adv}_1 \) is different from \( \text{Vi} + \text{Adv}_1 \) in these ways:

\( \text{be} + \text{Adv}_1: \text{Adv}_1 \) is obligatory. It cannot be deleted.

\( \text{Vi} + \text{Adv}_1: \text{Adv}_1 \) here is optional. It can be deleted.

English \( \text{be} \) agrees with number and person of the subject, and has an Aux, i.e., must show the present or the past form, and may have a modal, \( \text{have} + \text{en}, \text{be} + \text{ing} \).

1) e.g. \( \text{I} + \emptyset + \text{Present} + \text{be} + \emptyset + \text{Adv-p} \)

\( \text{I am here.} \)

\( \text{You} + \emptyset + \text{Present} + \text{be} + \emptyset + \text{Adv-p} \)

\( \text{You are here.} \)

\( \text{The boy/He/She/It} + \emptyset + \text{Present} + \text{be} + \emptyset + \text{Adv-p} \)

\( \text{The boy/He/She/It is here.} \)

2) e.g. \( \text{I} + \emptyset + \text{Past} + \text{be} + \emptyset + \text{Adv-p} \)

\( \text{I was here.} \)

\( \text{You} + \emptyset + \text{Past} + \text{be} + \emptyset + \text{Adv-p} \)

\( \text{You were here.} \)

\( \text{The boy/He/She/It} + \emptyset + \text{Past} + \text{be} + \emptyset + \text{Adv-p} \)

\( \text{The boy/He/She/It was here.} \)

3) If the subject is plural, the verb form in the present is always \( \text{are} \):

e.g. \( \text{I} + \text{S} + \text{Present} + \text{be} + \text{S} + \text{Adv-p} \)

\( \text{We are here.} \)

\( \text{You} + \text{S} + \text{Present} + \text{be} + \text{S} + \text{Adv-p} \)

\( \text{You are here.} \)

\( \text{The boy/He/She/It} + \text{S} + \text{Present} + \text{be} + \text{S} + \text{Adv-p} \)

\( \text{The boy/They are here.} \)
If the subject is plural, the verb form in the present is always are:

\[ \text{I + S + Present + be + S + Adv-p} \]
\[ \text{We are here.} \]
\[ \text{You + S + Present + be + S + Adv-p} \]
\[ \text{You are here.} \]
\[ \text{The boy/He/She/It + S + Present + be + S + Adv-p} \]
\[ \text{The boys/They are here.} \]

The plural past verb form is always were:

\[ \text{I + S + Past + be + S + Adv-p} \]
\[ \text{We were here.} \]
\[ \text{You + S + Past + be + S + Adv-p} \]
\[ \text{You were here.} \]
\[ \text{The boy/He/She/It + S + Past + be + S + Adv-p} \]
\[ \text{The boys/They were here.} \]

In English "be" may take any one of the following as a complement: NP, Adj, Adv, (Adv. of place) and Prep. Phrase.

Chomsky's rules do not include Adv. of time, but it is a possible structure, e.g., The time is now.

1) \text{be + NP}

\[ \text{NP} \text{ sing + Present + be + } \emptyset + \text{NP sing} \]
\[ \emptyset + \text{Nh} + \emptyset + \text{Present + be} + \emptyset + T + \text{Nh} + \emptyset \]
\[ \text{He is the chairman.} \]

2) \text{be + Adj}
e.g. NP sing + Present + be + ∅ + Adj
    T + Nh + ∅ + Present + be + ∅ + Adj
The boy is tall.

3) be + Adv-p

  e.g. NP sing + Present + be + ∅ + Adv-p
       T + Nh + ∅ + Present + be + ∅ + Adv-p
The girl is here.

4) be + Prep. Phrase

  e.g. NP sing + Present + be + ∅ + Prep. Phrase
       ∅ + Nh + ∅ + Present + be + ∅ + Prep. Phrase
   He is in danger.

5) be + Adv-t

  e.g. NP sing + Past + be + ∅ + Adv-t
       ∅ + Nab + ∅ + Past + be + ∅ + Adv-t
   It was yesterday.

2. Other Vcop's

1) Vs + NP

  e.g. NP sing + Past + Vcop + NP sing
       T + Nh + ∅ + Past + Vcop + T + Nh + ∅
The boy became a man.
   ∅ He remained my friend.

2) Vs + Adj

  e.g. NP sing + Past + Vcop + Adj
       ∅ + Nh + ∅ + Past + Vcop + Adj
   He seemed tired.
   She became hostile.
II. Intransitive Verbs "Vi"

The intransitive verb is a class of verbs which can be used alone without anything following it. Vi's can be classified as follows:

\[
Vi \rightarrow \{ \begin{array}{l}
Vi_1 \\
\{ Prt \}
\end{array}, \begin{array}{l}
Vi_2 \\
\{ Adj \}
\end{array}, \{ NP \} \}
\]

1. \(Vi \rightarrow Vi_1\)

   e.g. \(NP \text{ sing} + Vi_1\)
   
   \(\emptyset + Nh + \emptyset + \text{Past} + Vi\)
   
   He died.
   He left.
   He came.

2.a. \(Vi \rightarrow Vi_2 + Prt\). This symbol "Prt" (Particle) stands for a small group of words such as on, in, out, up, down, with, etc. that frequently combine with a verb to make what is essentially a two-part verb.

   e.g. \(NP \text{ sing} + \text{Past} + Vi_2 + Prt\)
   
   \(\emptyset + Nh + \emptyset + \text{Past} + Vi_2 + Prt\)
   
   He cut in.
   He stepped out.
   He gave up.

b. \(Vi \rightarrow Vi_2 + NP\)

   e.g. \(NP \text{ sing} + \text{Past} + Vi_2 + NP \text{ sing}\)
   
   \(\emptyset + N + \emptyset + \text{Past} + Vi_2 + T + Nab + \emptyset\)
   
   He took part.
It took place
He slept a deep sleep.

III. Transitive Verbs (Vt)

1. The Vt always takes an NP as its object. Most structures of this type can undergo the passive transform.

   \[ NP_1 + Vt + NP_2 \rightarrow NP_2 + \text{be} + \text{en} + Vt + \text{by} + NP_1 \]

   \[ e.g. \ NP_{sing} + C + Vt + NP_2 \ \text{sing} \rightarrow \ NP_2 \ \text{sing} + C + \text{be} + \text{en} + Vt + \text{by} + NP_1 \ \text{sing} \]

   \[ T + Nh + \emptyset + \text{Past} + \text{shoot} + T + Nc + \emptyset \rightarrow \]

   The man shot the tiger.

   \[ T + Nc + \emptyset + \text{Past} + \text{be} + \text{en} + \text{shoot} + \text{by} \]

   The tiger was shot by

   \[ T + Nh + \emptyset \]

   the man.

2. Non-Passivable Type

   This is a minor group of Vt's that cannot undergo the passive transform.

   \[ e.g. NP_{sing} + \text{Aux} + Vt + NP_{sing} \]

   \[ T + Nh + \emptyset + C + Vt + T + Nc + \emptyset \]

   \[ T + Nh + \emptyset + \text{Present} + Vt + T + Nc + \emptyset \]

   \[ \emptyset + I + \emptyset + \text{Present} + Vt + T + Nc + \emptyset \]

   \[ \emptyset + I + \emptyset + \text{Present} + \text{have} + a + \text{dog} + \emptyset \]

   \[ I \ \text{have} \ a \ \text{dog}. \]

   Other examples:

   The dress cost ten dollars.

   The table weighs six pounds.
3. Object-Deleted Type (only a few verbs may delete the object; usually the object is obvious)

\[ \text{e.g. } \text{NP}_{\text{sing}} + C + \text{Vt} + (\text{NP}_{\text{sing}}) \]
\[ T + \text{Nh} + \emptyset + \text{Past} + \text{Vt} + (T + \text{Nc} + \emptyset) \]
\[ \emptyset + \text{Nh} + \emptyset + \text{Past} + \text{Vt} + (T + \text{Nc} + \emptyset) \]

He investigated (the case.)

4. Pseudo-Object Type (a very small group)

\[ \text{e.g. } \text{NP}_{\text{sing}} + C + \text{Vt} + \text{NP}_{\text{sing}} + \text{Adv-p} \]
\[ T + \text{Nh} + \emptyset + C + \text{Vt} + T + \text{Nh} + \emptyset + \text{Adv-p} \]
\[ \emptyset + \text{Nh} + \emptyset + \text{Past} + \text{Vt} + \emptyset + \text{Nh} + \emptyset + \text{Adv-p} \]

He walked her home.

5. Two-Word Type (a large group)

\[ \text{Vt} \rightarrow \text{Vt} + \text{Prt} \]

\[ \text{e.g. } \text{NP}_{\text{sing}} + C + \text{Vt} + \text{NP}_{\text{sing}} \]
\[ T + \text{Nh} + \emptyset + C + \text{Vt} + \text{Prt} + T + \text{Nc} + \emptyset \]
\[ \emptyset + \text{Nh} + \emptyset + \text{Past} + \text{Vt} + \text{Prt} + T + \text{Nc} + \emptyset \]

He took off the coat.

\[ \text{Vt} + \text{Prt} \text{ may become a split form } \rightarrow \text{Vt} + \text{NP} + \text{Prt}. \text{ Hence, the above structure } = \text{NP} + C + \text{Vt} + \text{NP} + \text{Prt}. \]

\[ \text{e.g. } \text{NP}_{\text{sing}} + C + \text{Vt} + \text{NP}_{\text{sing}} \]
\[ T + \text{Nh} + \emptyset + C + \text{Vt} + T + \text{Nc} + \emptyset + \text{Prt} \]
\[ \emptyset + \text{Nh} + \emptyset + \text{Past} + \text{Vt} + T + \text{Nc} + \emptyset + \text{Prt} \]

He took the coat off.

Note: 1. When \( \text{NP}_2 \) "the object" is long and complicated, \( \ast \text{NP}_1 + \text{Vt} + \text{NP}_2 + \text{Prt} \) is ungrammatical in English.
2. When NP2 "the object" is a proper name or a personal pronoun, "NP1 + Vt + Prt + NP2" is not grammatical.

e.g. *NP\text{sing} + C + Vt + NP\text{sing} + wh-NP + Cop +
\text{Adj} + Prt
T + Nh + \emptyset + C + Vt + T + Nc + \emptyset + \text{wh-NP}\text{sing}
\begin{align*}
\text{He} & \quad \text{took} \quad \text{the} \quad \text{coat} \\
\text{wh-Nc} + \emptyset + \text{Past} + \text{be} + \emptyset + \text{Adj} + \text{Prt}
\end{align*}
which was thick off.

This structure is ungrammatical.

6. Prepositional Type (different from No. 5 because a pronoun object remains after the preposition).

e.g. NP\text{sing} + C + Vt + Prep + NP\text{sing}
T + Nh + \emptyset + C + Vt + Prep + T + Nc + \emptyset
\begin{align*}
\emptyset + Nh + \emptyset + \text{Past} + Vt + \text{Prep} + \emptyset + Nc + \emptyset
\end{align*}
\begin{align*}
\text{He} & \quad \text{waited} \quad \{\text{his friend.}\} \\
\text{He} & \quad \text{looked} \quad \{\text{a job.}\} \\
\text{He} & \quad \text{for} \quad \{\text{him.}\} \\
\text{He} & \quad \text{for} \quad \{\text{it.}\}
\end{align*}
7. Indirect Object Type

e.g. NP\textsubscript{sing} + C + Vt + NP\textsubscript{1sing} + NP\textsubscript{2sing}

\[ T + Nh + \emptyset + C + Vt + T + Nc + \emptyset + T + Nh + \emptyset \]
\[ \emptyset + Nh + \emptyset + \text{Past} + Vt + T + Nc + \emptyset + \emptyset + Nh + \emptyset \]

'He' 'gave' 'a' 'book' 'me'.

This string, after some transformational rules are applied, becomes:

\[ \emptyset + Nh + \emptyset + \text{Past} + Vt + T + Nc + \emptyset + \text{to} + \]

He gave a book to

\[ \emptyset + Nh + \emptyset \]

me.

Also, NP + Vt + NP\textsubscript{2} + NP\textsubscript{1} where "to" is deleted and NP\textsubscript{2} is moved.

e.g. NP\textsubscript{sing} + C + Vt + NP\textsubscript{2} sing + NP\textsubscript{1sing}

\[ T + Nh + \emptyset + C + Vt + T + Nh + \emptyset + T + Nc + \emptyset \]
\[ \emptyset + Nh + \emptyset + \text{Past} + Vt + \emptyset + Nh + \emptyset + T + Nc + \emptyset \]

He gave me a book.
b. Chinese Verbs

Chinese verbs have no inflections of any sort. Modals and tense markers are only extra words added to verbs. For the purpose of comparison, I shall again use the term Vcop in the traditional sense to describe some of the Chinese verbs, which will be classified as follows:

1. Copula Verbs (Vcop): SHIH "be", (Intensifier) + Adj, TSAI "be + in/on/at", HSIEN "seem/look", YU "to have".

1. a. Vcop → SHIH "be"

SHIH is restricted to this rule:

$$\text{SHIH} + \{\text{Adj}\} \cup \{\text{NP}\}$$

However, SHIH can be used in almost any sentence if emphasis is intended. Generally, SHIH + NP is different from Vt + NP in these ways:

SHIH + NP: the NP is a complement;
the whole structure is non-passivable.
Vt + NP: the NP functions as object;
the whole structure allows this passive transformation:

$$\text{NP}_1 + \text{Vt} + \text{NP}_2 \rightarrow \text{NP}_2 + \text{BEI} + \text{NP}_1 + \text{Vt} + (P)$$

Both *Vt + Adj and *Vi + Adj are ungrammatical in Chinese, except when Vt is a split form as stated in rule 14:

$$\text{VT} \rightarrow \text{Vt}_{2a} + \text{NP} + \text{Vt}_{2b} + \{\text{Adv-p}\}$$

But the difference between SHIH + Adj and Vt$_{2a}$ + NP + Vt$_{2b}$ + Adj is obvious since a NP must occur between the split
parts of the Vt, and there is no split form of SHIH. *SHIH + NP + Adj" is not grammatical, nor is "NP ('object') + SHIH + Adj".

b. SHIH + NP
   e.g. NP_{sing} + SHIH + NP_{sing} 
   Nh + \emptyset + SHIH + Nh + \emptyset 
   T'A  SHIH  SHIH-SHENG
   'He'  'be'  'student'
   (He is a student)

c. SHIH + Adj
   e.g. NP_{c} + SHIH + Adj
   T + Nc + \emptyset + SHIH + Adj
   CHE  BI  SHIH  HAU-TE
   'This'  'pen'  'be'  'good'
   (This pen is good)

2. Vcop --> Intensifier + Adj, e.g. HEN + Adj
   NP_{sing} + Intensifier + Adj
   Nh + \emptyset + Intensifier + Adj
   T'A  HEN  MEI-LI
   'she'  'very'  'beautiful'
   (she is very beautiful)

3. Vcop --> TSAI "be + in/on/at", e.g. TSAI + Adv-p
   N_{sing} + TSAI + Adv-p
   Nh + \emptyset + TSAI + Adv-p
   WO  TSAI  CHIA
   'I'  'at/in'  'home'
   (I am home.)
T'A TSAI CHE-R
'he' 'at' 'here'
(He is here.)

4. Vcop → HSIEN "seem, look like", e.g. HSIEN + NP

\[ \text{NP}_{\text{sing}} + \text{HSIEN} + \text{NP}_{\text{sing}} \]
\[ \text{Nh} + \emptyset + \text{HSIEN} + \text{Nh} + \emptyset \]
T'A HSIEN HSUEH-SHENG
'he' 'seem' 'student'
(He seems a student.)

HAI-TZU HSIEN T'A
'boy' 'look like' 'he'
(The boy looks like him.)

II. Intransitive Verbs "Vi"

1. Simple Form
   e.g. \[ \text{NP}_{\text{sing}} + \text{Vi} + \text{Aux} \]
   \[ \text{Nh} + \emptyset + \text{Vi} + \text{P} \]
   T'A LAI-LE
   'He' 'came' 'le'
   (He came.)

   T'A HZIH-LE
   'He' 'die' 'le'
   (He died.)

2. Compound Form
   1) Vi<\text{V-V} "<" means "derived from"
      e.g. \[ \text{NP}_{\text{sing}} + \text{Vi} + \text{Aux} \]
      \[ \text{Nh} + \emptyset + \text{Vi} + \text{P} \]
      T'A CHU-CHUEH-LE
'He' + 'go out' + 'go away' + 'Past Marker'

(He went out.)

2) $\text{Vi} \leftarrow \text{V-Adj}$

\begin{align*}
\text{e.g. } \text{NP}_{\text{pl}} + \text{Vi} \\
\text{Nh} + \text{MEN} + \text{Vi} \\
\text{NI-MEN} K'\text{AN-KW'AI} \\
'\text{You}' + 'hurry' + 'quick'
\end{align*}

(You have to be quick)

3) $\text{Vi} \leftarrow \text{V-N}$

\begin{align*}
\text{e.g. } \text{NP}_{\text{sing}} + \text{Vi} \\
\text{Nh} + \emptyset + \text{Vi} \\
\text{T'A} K'\text{AI HUI} \\
'\text{He}' + 'open + meeting'
\end{align*}

(He attended a meeting.)

4) $\text{Vi} \leftarrow \text{Adj-V}$

\begin{align*}
\text{e.g. } \text{NP}_{\text{sing}} + \text{Vi} \\
\text{Nh} + \emptyset + \text{Vi} \\
\text{T'A} DA-BING \\
'\text{He}' + 'big + ill'
\end{align*}

(He is very ill.)

III. Transitive Verbs "Vt"

All Chinese Vt's are passivable.

1. Simple Type

\begin{align*}
\text{e.g. } \text{NP}_{\text{sing}} + \text{Vt} + \text{NP}_{\text{sing}} \\
\text{Nh} + \emptyset + \text{Vt} + \text{Nh} + \emptyset \\
\text{T'A} DA WO \\
('\text{He} \text{ hit me}.)
\end{align*}
2. Compound Type

1) \( \text{Vt} \leftarrow \text{V-V} \) "\( \leftarrow \)" means "derived from"

\[
\begin{align*}
\text{e.g.} & \quad \text{NP}_{\text{sing}} + \text{Vt} + \text{NP}_{\text{sing}} \\
& \quad \text{Nh} + \emptyset + \text{Vt} + \text{Nh} + \emptyset \\
& \quad \text{T'A} \quad \text{CHIEN-TAO WO} \\
& \quad \text{'He'} + \text{'see-reach'} + \text{'me'}
\end{align*}
\]
(He saw me.)

T'A CHIEN-TAO WO
(He saw me.)

2) \( \text{Vt} \leftarrow \text{Vr} \) (the Reduplicating of a V)

\[
\begin{align*}
\text{e.g.} & \quad \text{NP}_{\text{sing}} + \text{Vt} + \text{NP}_{\text{sing}} \\
& \quad \text{Nh} + \emptyset + \text{Vt} + \text{Nc} \\
& \quad \text{WO} \quad \text{MO-MO T'A} \\
& \quad \text{'I'} + \text{'touch-touch'} + \text{'it'}
\end{align*}
\]
(I touched it.)

T'A HSI-HSI LIENG
(He washed his face.)

3) \( \text{Vt} \leftarrow \text{V-Adj} \)

\[
\begin{align*}
\text{e.g.} & \quad \text{NP}_{\text{pl}} + \text{Vt} + \text{NP}_{\text{pl}} \\
& \quad \text{Nh} + \text{MEN} + \text{Vt} + \text{Nh} + \text{MEN} \\
& \quad \text{WO-MEN DA-KUA T'A-MEN} \\
& \quad \text{'We'} + \text{'beat-down'} + \text{'them'}
\end{align*}
\]
(We beat them.)

T'A-MEN NONG-HAU F'AN
(They prepared the rice.)
4) $Vt \leftarrow V-P$

   e.g. NP $\langle$sing$\rangle$ + Vt $\langle$sing$\rangle$  
       Nh + $\emptyset$ + Vt + Nh + $\emptyset$  
       T'A RUN-TE WO  

   'He' + 'recognize-acquire' + 'me'  
   (He recognized me.)

   T'A LA-CHUH WO  

   'He' + 'grasp-stop' + 'me'  
   (He seized me.)

5) $Vt \leftarrow Adv-V$

   e.g. NP $\langle$sing$\rangle$ + Vt $\langle$sing$\rangle$  
       Nh + $\emptyset$ + Vt + Nh + $\emptyset$  
       T'A CH'IANG-CH'IANG WO  

   'He' + 'strongly-rob' + 'me'  
   (He robbed me by force.)

   T'A MAN-MA T'A  

   'She' + 'widely-blame' + 'him'  
   (She blamed him unreasonably.)

6) $Vt \leftarrow N-V$

   e.g. NP $\langle$pl$\rangle$ + Vt + NP  
       Nh + MEN + Vt + Nc  
       WO-MEN MEI-HUA K'O-TONG  

   'We' + 'beauty-change' + 'classroom'  
   (We beautified the classroom.)

   Nh + MEN + Vt + T + Nc  
       T'A-MEN JEN-KE-HUA SO-YU-TE TUNG-WU
'They' + 'character-change' + 'all' + 'animals'
(They personified all the animals.)

3. Indirect Object Type

e.g. \( NP_{\text{sing}} + Vt + NP_{\text{sing}} + NP \)

\[ \text{Nh} + \emptyset + Vt + \text{Nh} + \emptyset + T + Cl_{\text{sing}} + \text{Nc} \]

T'A GEI WO I-BUN - SHU
(He gave me a book.)

T'A KAO-SHU WO I-CHONG-HSI-CHING
(He told me something.)

4. Split Type

e.g. \( NP_{\text{pl}} + Vt_{a} + NP_{\text{pl}} + Vt_{b} + \text{Aux} \)

\[ \text{Nh} + \text{MEN} + Vt_{a} + \text{Nh} + \text{MEN} + Vt_{b} + \text{P} \]

WO-MEN BA T'A-MEN DA-HUA LE
(We beat them.)
c. **Contrastive Analysis**  Part V

1. A. Vcop → be

Rules:

- **English**: Aux + be + \( \frac{\text{NP}}{} \) + Adj + Prep. Phrase
- **Chinese**: (Aux) + SHIH + \( \frac{\text{NP}}{} \) + Adj

Features:

1. **English**: Both "be" and "SHIH" are Vcop's
   **Chinese**: Both "be" and "SHIH" are Vcop's

2. **English**: "be" occurs in these environments:
   \( C + (M) + be + \frac{\emptyset}{S} + X \)
   **Chinese**: "SHIH" occurs in these environments:
   \( (M) + SHIH + X \)
   This structure contains no tense and number morphemes.

3. **English**: Both "be" and "SHIH" structures are not passivable.
   **Chinese**: Both "be" and "SHIH" structures are not passivable.

4. **English**: There are three kinds of "be": "be" as an Aux; "be" as a Vcop; "be" as a structure word to mark passive.

5. **English**: SHIH may be used as an Aux before the Vi and the Vt to denote emphasis. It is never used to mark passive.

5. be + NP
   **English**: "be" may occur before any NP.
   **Chinese**: SHIH may occur before any NP.

6. be + Adj
   **English**: "be" may occur before any Adj.
   **Chinese**: "SHIH" may occur before any Adj.
7. be + Adv

   English: Adv is restricted to Adv-p and Adv-t.

   Chinese: "SHIH + Adv" is ungrammatical.

Conclusion 14: Problems of Chinese speaker learning English.

Production:
1. May make mistakes in tenses and in number concord.
2. May mistake "He is in here" for "He is here".
3. May use be before verbs incorrectly.
   e.g. *The boy is play ball.
4. May be confused when coming across "be + \Ø + NP\textsubscript{pl}".
   e.g. Mountain climbing is many things to many people.
5. May have difficulty with be in passive transformations.
6. May omit be due to the interference of "Intensifier + Adv" and "TSAI + Adv-p" structures in Chinese.

Recognition: May have difficulty in distinguishing be as an Aux, be as a Vcop, and be as part of the passive form.

B. Vcop \rightarrow become, remain, seem, etc.

a. Vcop + NP \rightarrow become/remain + \{NP\ \} + \{Adj\}

Features:

   English: This sort of Vcop behaves differently from "be", but it involves the meaning of "be".

   e.g. "The boy remained silent" involves the meaning of "The boy was silent".

   Chinese: No equivalent structure.
b. Vcop + NP \rightarrow seem + \{NP\}

Feature: English

"seem" and "HSIEN" are similar features. Both may occur before a NP and an Adj. They have similar meaning.

**Conclusion 15:** Problems of Chinese speaker learning English.

Production:
1. May mix up become/remain + \{NP\} with "be" structures.
2. May lack confidence in using this class of Vcop.

Meaning: Remain + \{NP\} can be a problem.

2. Vi

Feature: 1. English

The Vi's in both languages can be used alone without any word following them.

2. English: An Vi can be one single word. It can also comprise two or more words.

Chinese: An Vi can be one single word. It can also be a combination of one word with another word or some other words.

**Conclusion 16:** Problems of Chinese speaker learning English.

Production:
1. Will have difficulties in handling Vi's that consist of more than one word.
2. May produce a sentence like *He went madly" meaning "He went mad."
3. May misplace the adverb. e.g. 'The birds from the south..."
came.' meaning 'The birds came from the south' and 'He stepped slowly out' meaning 'He stepped out slowly.'

Recognition and meaning:
1. Will have difficulties in interpreting phrasal V's.
2. May think "take" in V's like "take part" and "take place" transitive, that is, understand the phrase literally.
3. May misunderstand the function of "it" in V's like "make it" and "beat it".

3. Vt

Form: Vt + NP "object"

Features: 1. English: Some Vt's are non-passivable.
   Chinese: All Vt's are passivable.

2. English: "be" must be used when the passive transformational rule is applied.
   Chinese: SHIH "be" is not required in any passive transformation.

3. English: Sometimes the object may be deleted.
   Chinese: The object can always be deleted provided that there is a previous context.

4. English: Vt like "take off + NP" "hang up + NP" may become "take + NP + off" and "hang + NP + up" if the NP in each case is not long and complicated. Also split the verb and the Prt when the object is a pronoun. e.g. take it off.
   Chinese: Split Vt's are found in the "BA +
+ NP + Vt + (P)" structure. The word order is fixed.

5. **English**: The position of the preposition in Vt → Vt + prep is fixed. *"Vt + NP + prep" is ungrammatical. e.g. *"He looked a job for".

**Chinese**: No equivalent structure.

6. **English**: Indirect objects may occur immediately after the Vt, or after the direct object. 'to' must be used when it occurs after the direct object. So both *Vt + NP₂ "Indirect obj." + NP₁ "Direct obj." and "Vt + NP₁ + to + NP₂" are right.

**Chinese**: The indirect object always follows the Vt immediately.

Conclusion 17: Problems of Chinese speaker learning English.

Production:

1. May delete a required object.

2. May apply passive transformational rules to a non-passive sentence.

3. Will have trouble with "be" in passive transformations.

4. Will have trouble in dealing with "Vt-adv" and "Vt-prep".

5. May apply "Vt + NP₂ "Ind. obj." + NP₁ "Direct obj." to a sentence that requires "Vt + NP₁ + to + NP₂". e.g. "He returned him the book". meaning "He returned the book to him".
Recognition and meaning: Will have difficulty in distinguishing the subject differences in:

1. "I have been there before" and "I have been told before".

2. "The food was good" and "The food was eaten".

3. "I have been given much money since last summer" and "I have been giving away much money since last summer".
A Selected Bibliography

Contrastive Analysis


English


Chinese


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