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48. Syntactical Permutability in Chinese (1)

John DeFrancis

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Syntactical Permutability in Chinese⁽¹⁾

Chinese has often been characterized as a language in which word-order plays an exceptionally important role. A contrast is frequently made between highly inflected languages with relatively free word order and Chinese as a language in which a fixed word order compensates for the lack of inflection. The contrast is mentioned particularly often by writers of Slavic background.

Thus a Czech sinologist speaks of Chinese as 'a language with fixed word order.'⁽²⁾ An explicit contrast with Russian is made in the following comments by a Russian scholar:

In Russian the syntactic function of a word ordinarily does not depend on the position which it occupies in the sentence, since the elements of a sentence possess definite formal-grammatical tokens. Hence in Russian a free order of words in the sentence is permitted.

In Chinese the elements of a sentence ordinarily lack definite formal-grammatical tokens, and the syntactic function of a word depends on the position which it occupies in the sentence. Hence in Chinese there exists a definite order of words in the sentence.⁽³⁾ (Italics in original)

(1) This paper is a product of the National Science Foundation Project on Linguistic Transformations at the University of Pennsylvania. In its preparation I have benefitted from discussions with Zellig Harris and Henry Hiž.

(2) Jarmila Kalousková, 'Des Catégories des Mots dans la Langue Chinoise', *Archiv Orientální*, XXV (1957), 291.

(3) V. I. Gorelov, Prakticheskaya grammatika kitaiskogo yazyka (Moscow, 1957), p. 7. Similar views are to be found in M. K. Rummyantsev, Predlozhenie podlizhashcheye v sovremennom kitsaiskom yazike (Moscow, 1957), pp. 45-46.

In the same vein the eminent Chinese linguist Li Jinxi points out that 'I love him' can be expressed in Russian either as Ya lyubyu yego or as Yego lyubyu ya, whereas the Chinese equivalent cannot be subjected to such changes in word order without changing the meaning. (4)

The factor of 'meaning' underlies all these references to the fixed word order of Chinese, but meaning, as is well known, is a peculiarly difficult thing to handle. Initially we might well forego consideration of meaning altogether in discussing word order in Chinese.

A convenient starting point might be to ask how many acceptable sentences can be formed from a sentence of n syntactic elements by a simple rearrangement of these elements (without repetition of the elements). (5) AB is a sentence made up of the two elements A and B. Is the permutation BA also a sentence? Take a set of three syntactic elements A, B, and C. We inquire as to whether the following are sentences in the language:

ABC	BAC	CAB
ACB	BCA	CBA

For n elements there are $n!$ permutations.

(4) Li Jinxi, Hanyu Yufa Jiaocai (Peking, 1957), p. 4.

(5) For present purposes it is not necessary to define strictly such terms as 'syntactic element', 'sentence', and 'acceptable'. It will suffice if the first of these is glossed as 'word' or 'compound word', with the decision being made rather arbitrarily as to what a word is since this is a subject of considerable controversy in Chinese. A sentence is an utterance preceded and followed by full pause. 'Acceptable' is defined as something a native speaker will acknowledge he might say in a specifiable situation.

The Chinese sentence

- (1) Tā yòng kuàizi chí Zhōngguo-fàn 'He eats Chinese food with chopsticks'

can be analyzed as having five syntactic elements. These have $5!$ or 120 permutations. We need a systematic procedure for generating these permutations so as not to overlook any in our search for sentences. One possible procedure would be to start by assigning a letter code to each of the five elements:

A	tā	he
B	yòng	uses, with
C	kuàizi	chopsticks
D	chí	eats
E	Zhōngguo-fàn	Chinese food.

Next we present the 120 permutations of these elements, indicating by numbers in parentheses those permutations, sixteen in number, which are acceptable as sentences. (See Table IA.) These sixteen sentences are presented in Table IB. (6)

- (2) Tā huì bu huì yòng kuàizi? 'Can he use chopsticks'?

Instead of going through the whole of this laborious procedure, however, we can take some short-cuts. Thus it is immediately apparent that no

(6) Not all these sentences will be equally acceptable to all native speakers of the language, but they are attested to as sentences by at least one such speaker, Mrs. Teng Chia-yee, a native of Peking whose assistance is hereby acknowledged. One of the difficulties in accepting some of the sentences is that in the form given they lack much information (stress, juncture, intonation) which exists when they are spoken correctly. The non-acceptance of a number of sentences would not materially affect the main points of this discussion.

permutation beginning with bu 'not' will be acceptable as a sentence. By such procedures we obtain a number of trees, presented in Table II, which include those permutations, fourteen in number, which are acceptable as sentences.

Supposing now we combine the two original sentences to produce the new sentence

(3) Tā huì bu huì yòng kuaizi chí Zhōngguo-fàn? 'Can he eat Chinese food with chopsticks?'

Of the 20,160 permutations, 82 turn out to be sentences. These are presented in Table III. (6)

The rather surprising picture of syntactical permutability suggested by these few examples leads us to inquire whether the permutations indeed involve changes in meaning. This inquiry is central to the more critical examination which is clearly called for into the view of Chinese as a language with fixed word order. Such an examination, which would be an exceedingly complex task, is beyond the scope of this article, the aim of which is merely to draw attention to the magnitude of the problem and to suggest some possible lines of inquiry.

Although it will not be easy to answer, one of the most important questions which must be raised is how the permutations are related to each other in meaning. Let us look for a moment at the 82 sentence-permutations of Sentence 3. A minimal statement that can be made is that the 82 sentences are not arbitrary sentences with phonemically similar words, but are syntactically closely related to each other in that they contain the same elements in the actor-action relation. In all 82

sentences the action of eating is performed, the person who does the eating is tā 'he', what he eats is Zhōngguo-fàn 'Chinese food', and what he uses to eat is kuàizi 'chopsticks'. To say that this large number of sentences describe the same objective situation is already saying a great deal even if it should turn out that there are different subjective shades.

Looking now into the question of aspectual differences among these sentences, we find that there are at least a few which are completely identical even in this respect. Consider the following permutations of Sentence 3 in Table III, noting especially the position of bu huì 'cannot':

- Tā huì bu huì yòng kuàizi chī Zhōngguo-fàn? (No. 1 in Table III)
 (4) Tā huì yòng kuàizi bu huì chī Zhōngguo-fàn? (No. 4 in Table III)
 (5) Tā huì yòng kuàizi chī Zhōngguo-fàn bu huì? (No. 3 in Table III)

It appears that there are three possible positions for bu huì: (1) immediately after huì 'can' (2) after the first verb-phrase yòng kuàizi 'with chopsticks' (3) at the end of the second verb-phrase chī Zhōngguo-fàn 'eat Chinese food', which means in this case at the end of the sentence. In all cases bu huì is spoken in close juncture with what precedes, and the morphophonemic features of all three sentences are not affected by the shift in position. Nor is there any difference in shade of meaning among the three sentences.

In some cases the question as to whether or not the sentence-permutations involve different shades of meaning cannot be answered in quite so clear-cut a fashion. Consider Sentence (1)

Tā yòng kuàizi chī Zhōngguo-fàn 'He eats Chinese food with chopsticks'
and its permutation No. 2 from Table I:

(6) Tā chī Zhōngguo-fàn yòng-kuàizi 'In eating Chinese food he uses chopsticks'.

I think the English glosses reflect the Chinese with fair accuracy. Is there some aspectual difference between (1) and (6)? The answer is probably the same for both Chinese and English, and it is probably affirmative, but I would be hard put to define the difference. Is it some secondary feature of emphasis, of style?

Consider also the following permutations of (3)

Tā huì bu huì yòng kuàizi chī Zhōngguo-fàn? (No. 1 in Table III)

(7) Tā chī Zhōngguo-fàn huì bu huì yòng kuàizi? (No. 9 in Table III)

Sentence (3) means 'Can he eat Chinese food with chopsticks'? Sentence (7) can be rendered in two ways: (7)

(7a) 'In eating Chinese food can he use chopsticks'? and

(7b) 'In eating Chinese food is he likely to use chopsticks'?

The difference between (3) and (7a) is the same as whatever difference is defined for (1) and (6). But the difference between (7a) and (7b) is more substantial. Hence when (3) is permuted to (7) we get an ambiguous sentence: one meaning (7a) is the same or very close to that of the original sentence, another (7b) involves an aspectual change which can be indicated by English 'can', 'know how to' versus 'is likely to'.

The aspectual difference noted above seems to be the extreme limit of the differences among the 82 sentences under discussion. That the difference is not greater comes as something of a surprise when considered

(7) from point of Li Shun's previously quoted comparison of Russian
I wish to thank William S. Y. Wang for drawing my attention to this difference. Our closer examination of Li's comparison of the Subject-

from the viewpoint of Li Jinxi's previously quoted comparison of Russian and Chinese. On closer examination of Li's comparison of the Subject-Verb-Object (SVO) construction in Russian and Chinese, it appears that when Li states that Ya lyubyu yavo can be expressed also as Yavo lyubyu ya, whereas Chinese (8)

(8) Wǒ ài tā 'I love him'

cannot be inverted to

(9) Tā ài wǒ, which actually means 'He loves me',

he is stacking the cards against Chinese. The implication is that SVO in Chinese is never expressed as OVS. It is true that (8) cannot be inverted paraphrastically, but we find on examining our 82 sentences that (3)

Tā huì bu huì yòng kuàizi chī Zhōngguo-fàn?

has a permutation (No. 28 in Table III) which interchanges S and O:

(10) Zhōngguo-fàn huì bu huì yòng kuàizi chī tā?

Although there may be some slight differences in subjective shades between (3) and (10) it appears that basically they are paraphrases of each other. Furthermore there is no ambiguity here or possible conflict with a fairy-tale situation such as might result in English if we handle the inversion of S O to O S mechanically and translate (10) as 'Can the Chinese food eat him with chopsticks'?

(8) The changeover from Li's version of these sentences, which are in Chinese characters, to a transcription version introduces the by no means unimportant but here secondary problem of phonemic detail. Pronouns in subject position sometimes, in object position generally (unless stressed) lose their original tones. Whether or not tones are indicated would not affect the discussion, and for purposes of simplifying things for the non-sinological reader who might be thrown off by changes in the transcription, I have chosen to write in the tones uniformly here. In Tables I-III, however, I have indicated the shift from tā in initial position to ta in final position. Besides tones, other secondary features of juncture, stress, and intonation are not always preserved in the permutations. A thorough-going study of syntactical permutability in Chinese would have to take changes in secondary features into consideration.

The inversion of subject and object without change in meaning is also to be found in the case of sentence (2)

Tā huì bu huì yòng kuàizi?

which has as its permutation No. 14 in Table II:

(11) Kuàizi huì bu huì yòng tā?

Again there is no ambiguity or possibility of this sentence meaning 'Can the chopsticks use him?'

On the other hand (8)

Wǒ ài tā 'I love him'

cannot be expressed as (5)

Tā ài wǒ

and the reason why it cannot is clear. Wǒ and tā belong to the same form-class (singular personal pronouns) and cannot be interchanged without changes in meaning. The interchanged elements in the permutations of sentence (2) (i.e. tā and kuàizi) and of sentence (3) (i.e. tā and Zhōngguo-fàn), though belonging to the general class of substantives, fall into separate sub-classes and can be interchanged without ambiguity or change in meaning.

This does not mean, however, that it requires only a difference in form-class for two elements to be able to change position without change in meaning. Although sentences (2) and (3) have paraphrastic permutations in which S and O are inverted, sentence (1) has no such inverse despite the fact that tā and kuàizi are in different sub-classes. I don't know why (1) lacks this inverse. Perhaps the question should be put more positively: What is it about sentences such as (2) and (3) which permits the inverse permutation?

The question why the permutation which reverses Subject and Object is permitted in some cases and not in others is part of the more general and extremely important question having to do with restrictions on permutability. In the first place, obvious though this is, it is worth reminding ourselves that of the 20,160 mathematically possible permutations of sentence (3) only 82 are acceptable as sentences. Chinese does have serious restrictions on permutability, and investigation should pay attention both to what is not as well as to what is permitted.

Along these lines it would be helpful to look into sentence-permutations from the viewpoint of the specific situations in which they might be used. For example, given a specific contextual situation such as a direct reply to a question, in how many ways can one give answers which are paraphrases of each other, using the same syntactic elements? I suspect that in languages generally, Russian as well as Chinese, not much variety is permitted in such cases.

Study of restrictions on permutability leads also to an examination of similarity or partial similarity among permutations. For example, given sentence (3) with its eight elements (seven if we disregard repetition of hui), what partial or complete similarity do its transformations share with other seven- or eight-element sentences? With other sentences of fewer or greater number of elements? Or, to put the question in another form, what sentences can regularly be derived from others?

We saw earlier that the permutation of S V O to O V S was possible in the case of sentences (2) and (3) but not in the case of sentence (1). On the other hand the permutation of S V O to O S V is possible for all these sentences:

- (12) Zhōngguo-fàn tā yòng kuàizi chí (No. 13 from Table I.)
 (13) Kuàizi tā huì bu huì yòng? (No. 11 from Table II)
 (14) Zhōngguo-fàn tā huì bu huì yòng kuàizi chí? (No. 24 from Table III)

The permutation of S V O to O S V is much more common than the Subject-Object inverse permutation, but it still is not universal. If S and O are both personal pronouns, for example, the indicated permutation is not permitted.

The study of restrictions on permutability involves another area which needs to be studied, namely the reversibility of verb phrases. In this connection we may note that Y. R. Chao⁽⁹⁾ distinguishes between the 'coordinate syntactic construction' and 'verbal expressions in series'. In the former 'the order is usually reversible', whereas the latter has 'a fixed order'. As an example of the coordinate syntactic construction Professor Chao cites a pair of sentences which can be transcribed and translated as follows:

- (15) Tā tiāntiār huì kè xiě xìn 'He receives callers and writes letters every day'.
 (16) Tā tiāntiār xiě xìn huì kè 'He writes letters and receives callers every day'.

His examples of verbal expressions in series include:

- (17) Ná dāo gěi ta 'Take a knife and give to him, --give him a knife'.
 (18) Gěi tā ná dāo 'Give him take knife, --Take a knife for him'.
 (19) Lǐ tā tài yuǎn '[It's] too far from him'.

(9) Mandarin Primer (Cambridge, 1948), pp. 38-39.

When Professor Chao speaks of coordinate expressions such as sentences (15) and (16) above as being reversible he apparently means that no change, or at least no significant change, in meaning results. In his examples (17) and (18) we have cases in which the verbal expressions cannot be reversed without changing the meaning. But note that they can be reversed if we accept a change in meaning. The reason for pointing this out is to contrast (17) and (18) on the one hand with (19), where the two verbal expressions lǐ tā '(separated) from him' and taì yuǎn 'too far' cannot be reversed under any conditions.

It thus appears that verb phrases can be characterized somewhat as follows:

A. Reversible

1. Without change in meaning (coordinate expressions),
e.g. Nos. 15, 16,
2. With change in meaning (verbal expressions in series),
e.g. Nos. 17, 18;

B. Non-reversible (verbal expressions in series), e.g. No. 19.

Now consider again sentence (1):

Tā yòng kuàizi chī Zhōngguo-fàn 'He eats Chinese food with chopsticks'.

and sentence (6)

Tā chī Zhōngguo-fàn yòng kuàizi 'In eating Chinese food he uses chopsticks'. (No. 2 from Table I)

The question was raised earlier as to whether these two sentences were the same or different in meaning. Here the same question can be put in the form of asking whether they belong to A1 or A2 above. The same question

applies to sentence No. 3

Tā huì bu huì yòng kuàizi chī Zhōngguo-fàn?

and to

(20) Tā huì bu huì chī Zhōngguo-fàn yong kuàizi? (No. 2 from Table III).

Sentence (3) can be rendered as 'Can he eat Chinese food with chopsticks?', and Sentence (20) as 'Can he use chopsticks in eating Chinese food'?

It will be helpful in examining these sentences and their possible relationship with those cited by Professor Chao if we modify some of them slightly so that they can be fitted into the following formal pattern:

	S	V ₁	O ₁	V ₂	O ₂
(a)=(15)	Tā	xiě	xìn	huì	kè
(b)=(17)	Tā	ná	dāo	gěi	ta
(c)=(1)=(3)	Tā	yòng	kuàizi	chī	Zhōngguo-fàn

In all three cases the verbal expressions can be reversed, resulting in the following sentences:

	S	V ₂	O ₂	V ₁	O ₁
(d)=(16)	Tā	huì	kè	xiě	xìn
(e)=(18)	Tā	gěi	ta	ná	dāo
(f)=(6)=(20)	Tā	chī	Zhōngguo-fàn	yòng	kuàizi

The translations of these sentences are as follows:

- (a) 'He writes letters (and) receives guests'.
 (b) 'He takes knife gives him, --He gives him a knife'.
 (c) 'He uses chopsticks eats Chinese food, --He eats Chinese food with chopsticks'.

- (d) 'He receives guests (and) writes letters'.
- (e) 'He gives him take knife, --He takes a knife for him'.
- (f) 'He eats Chinese food uses chopsticks, --In eating Chinese food he uses chopsticks'.

The Chinese sentences suggest the following transformations:

$$S \quad V_1 \quad O_1 \quad V_2 \quad O_2 \quad \leftrightarrow \quad S \quad V_2 \quad O_2 \quad V_1 \quad O_1$$

$$(a)=(15) \leftrightarrow (d)=(16)$$

$$(b)=(17) \leftrightarrow (e)=(18)$$

$$(c)=(1)=(3) \leftrightarrow (f)=(6)$$

Sentences (a)=(15) and (d)=(16) belong to category A_1 , that is to coordinate expressions which can be reversed without change in meaning.

Sentences (b)=(17) and (e)=(18) belong to category A_2 , that is to verbal expressions in series which can be reversed with change in meaning but otherwise have a fixed word order. To what category do (c)=(1)=(3) and (f)=(6) belong? The meaning of the sentences does not provide a ready answer, as there is some question as to whether (c) and (f) are the same or different in meaning. It would be helpful if some formal means could be found for distinguishing and categorizing these and other sentences.

If we take the pattern $S \quad V_1 \quad O_1 \quad V_2 \quad O_2$ and manipulate it in various ways, such as re-arranging its elements or inserting constants, we find, not surprisingly, that not all sentences belonging to this same general pattern behave in the same way. As noted earlier, some sentences do not permit the inversion of $V_1 \quad O_1 \quad V_2 \quad O_2$ to $V_2 \quad O_2 \quad V_1 \quad O_1$. This is the B category of sentences.

There is another category of sentences which permit the insertion of yímiàn 'on the one hand' in the following way: yímiàn V₁ O₁ yímiàn V₂ O₂. All such sentences belong to category A₁, those displaying the coordinate syntactic construction. Our sentences (c) and (f) share with those of the A₂ category the characteristic of not fitting into the pattern with yímiàn. On the other hand (c) and (f) have some points in common with the A₁ sentences which are not shared by those in the A₂ category. Thus sentences (a), (c), (d), (f) all accept the structure méi V₁ O₁ yě méi V₂ O₂ 'didn't V₁ O₁ and also didn't V₂ O₂'. In addition, (c) and (f) have at least one distinctive feature not shared by the other sentences, namely that they permit all three of the following question forms involving huì bu huì 'can or cannot'?

(g) huì bu huì V₁ O₁ V₂ O₂ ?

(h) huì V₁ O₁ bu huì V₂ O₂ ?

(i) huì V₁ O₁ V₂ O₂ bu huì ?

The remaining sentences permit (g) and (i) but not (h).

The fact that sentences (c) and (f), which contain the verb yòng 'use', share some features with other sentences but also have some unique characteristics, supports the intuitive feeling that there is something special about this verb. It has frequently been placed in the category of 'coverb', a category of imprecise definition and doubtful validity, but it clearly differs from other 'coverbs' in having a good deal more freedom and independence. Perhaps this explains the large number of permutations of sentence (3).

It would be desirable to test many other sentences of pattern $V_1 O_1 V_2 O_2$ to see what insightful sub-groups can be distinguished. If we extend the inquiry beyond simple permutations and take up permutation combined with zeroing we can expect to get still further insights. A case in point involves zeroing leading to ambiguity, as in the expression X chī le. If in this sentence X is the logical subject of chī 'eat' and the object has been zeroed, the expression means X ate. But if X is the logical object of the verb and the subject has been zeroed, the expression means X was eaten. Here are two sentences illustrating this:

- (21) Wǒ chī le 'I've eaten'.
 (22) Fàn chī le 'The food's been eaten'.

These are derived from

- (23) Wǒ chī fàn le 'I've eaten (food)'

by zeroing fàn 'food' in (21) and by permutating fàn and zeroing wǒ 'I' in (22).

The objective in this sort of analysis is of course to discover patterns and rules, transformational and otherwise, which will throw light on the workings of the language. From this point of view the mere listing of permutations, such as the impressive number noted for sentence (3), is only a first step in the analysis. We must eventually go on to the more difficult task of trying to reduce these sentences to some resemblance of order. In this connection it is worth asking whether there is any point in trying to divide these sentences into groups which differ in meaning from each other but in which the members of each group have the same, or approximately the same, meaning. Or shall we say that

a difference in word order is ipso facto evidence of difference of meaning? In either case we must state how differences in word order affect the meaning.

Perhaps a careful examination of the 82 sentences will lead to the conclusion that each of them has a unique meaning and has a fixed word order to express this meaning. In that case Chinese may indeed turn out to have 'a fixed word order' --like English and other languages. A conclusion arrived at as a result of such an examination would carry a good deal more weight than the weakly-based contentions cited at the beginning of this article.

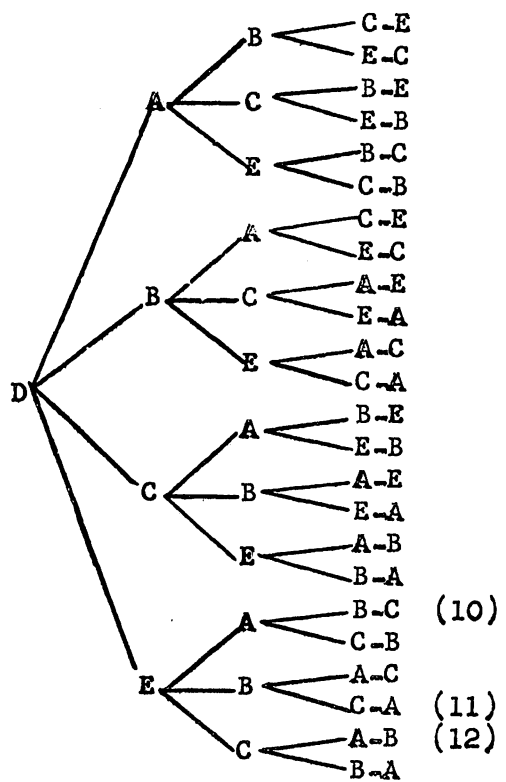
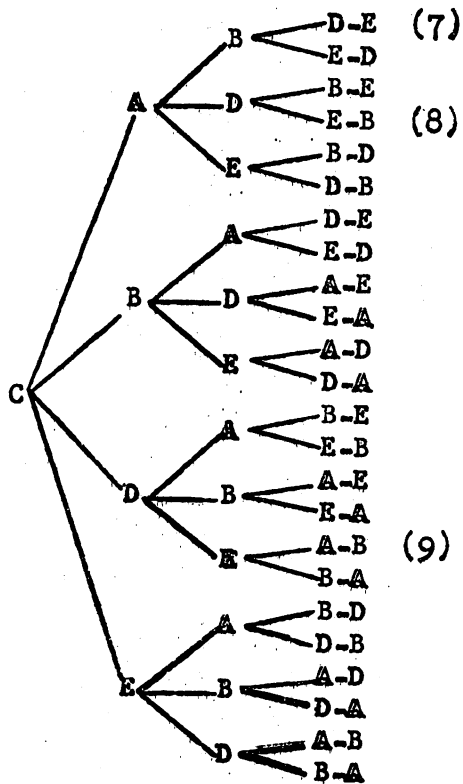
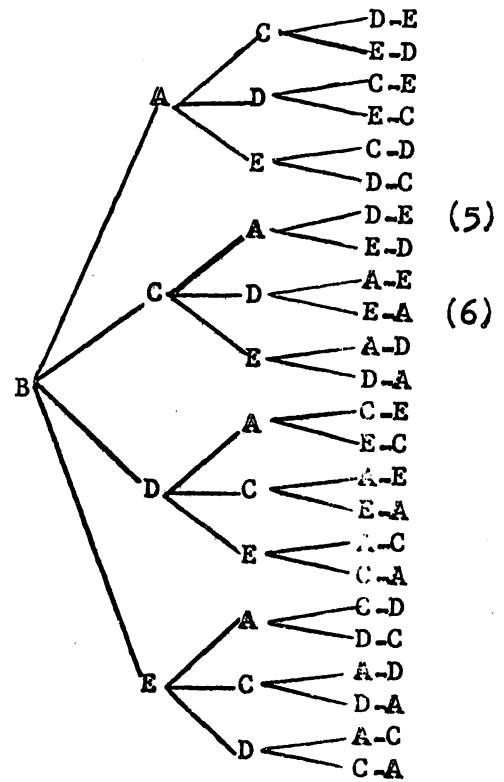
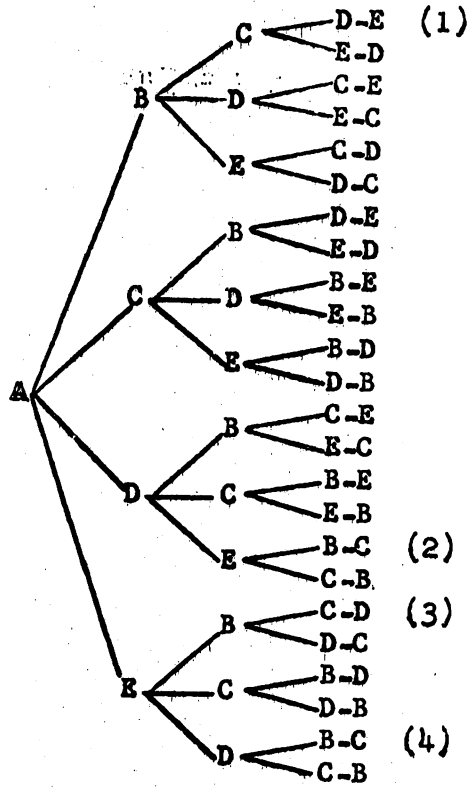
In any case it is abundantly clear that we cannot simply dismiss Chinese as having 'a fixed word order'. Whether it is relatively more fixed than other languages is debatable. Far more useful than such generalized statements and comparisons would be a searching examination, along some such lines as those noted briefly in this paper, on how word order functions in Chinese. This is a task which merits a good deal more attention than it has received to date.

Permutations of Sentence 1: Tā yòng kuàizi chī Zhōngguo-fàn
 'He eats Chinese food with chopsticks'

A: tā
 B: yòng

C: kuàizi
 D: chī

E: Zhōngguo-fàn
 (): permitted sentences



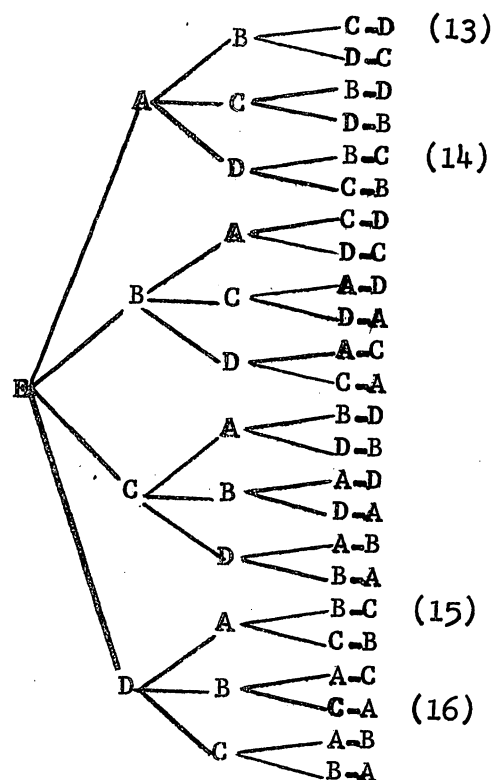


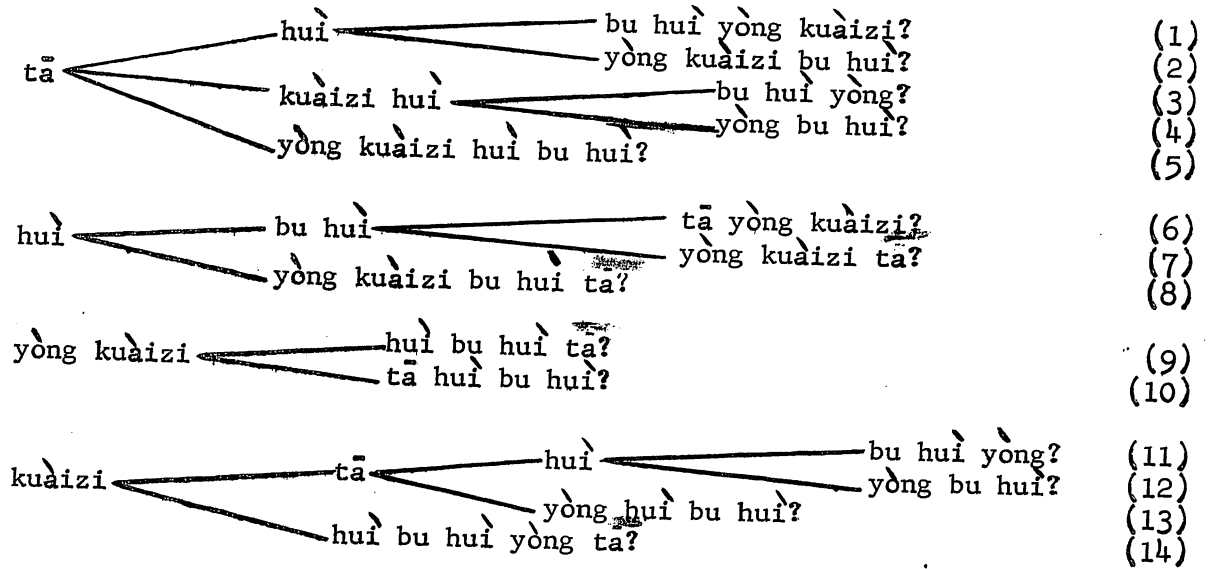
Table I-B

sentences

- (1) Tā yòng kuàizi chī Zhōngguo-fàn
 (2) " chī Zhōngguo-fàn yòng kuàizi
 (3) " Zhōngguo-fàn yòng kuàizi chī
 (4) " " chī yòng kuàizi
- (5) Yòng kuàizi tā chī Zhōngguo-fàn
 (6) " " chī Zhōngguo-fàn tā
- (7) Kuàizi tā yòng chī Zhōngguo-fàn
 (8) " " chī Zhōngguo-fàn yòng
 (9) " " chī Zhōngguo-fàn tā yòng
- (10) Chī Zhōngguo-fàn tā yòng kuàizi
 (11) " " yòng kuàizi tā
 (12) " " kuàizi tā yòng
- (13) Zhōngguo-fàn tā yòng kuàizi chī
 (14) " " chī yòng kuàizi
 (15) " " chī tā " "
 (16) " " yòng kuàizi tā

Table II

Permutations of Sentence 2: Tā huì bu huì yòng kuàizi?
'Can he use chopsticks'?



chǐ Zhōngguo-fàn	tā	huì	bu huì yòng kuàizi?	(45)	
			yòng kuàizi bu huì?	(46)	
		kuàizi huì	bu huì yòng?	(47)	
			yòng bu huì?	(48)	
		yòng kuàizi huì bu huì?	(49)		
	huì	bu huì	tā yòng kuàizi?	(50)	
			yòng kuàizi tā?	(51)	
		yòng kuàizi bu huì tā?	(52)		
	yòng kuàizi	huì bu huì tā?	(53)		
		tā huì bu huì?	(54)		
	kuàizi	tā	huì	bu huì yòng?	(55)
				yòng bu huì?	(56)
		yòng huì bu huì?	(57)		
huì bu huì yòng tā?		(58)			
huì	bu huì	tā	yòng kuàizi chǐ Zhōngguo-fàn?	(59)	
			chǐ Zhōngguo-fàn yòng kuàizi?	(60)	
		yòng kuàizi chǐ Zhōngguo-fàn tā?	(61)		
		chǐ Zhōngguo-fàn yòng kuàizi tā?	(62)		
	yòng kuàizi	bu huì	tā chǐ Zhōngguo-fàn?	(63)	
			chǐ Zhōngguo-fàn tā?	(64)	
	chǐ Zhōngguo-fàn bu huì tā?	(65)			
yòng kuàizi	huì	bu huì	chǐ Zhōngguo-fàn tā?	(66)	
			tā chǐ Zhōngguo-fàn?	(67)	
		chǐ Zhōngguo-fàn bu huì tā?	(68)		
	tā	huì	bu huì chǐ Zhōngguo-fàn?	(69)	
			chǐ Zhōngguo-fàn bu huì?	(70)	
		chǐ Zhōngguo-fàn huì bu huì?	(71)		
	huì bu huì	tā chǐ Zhōngguo-fàn?	(72)		
		chǐ Zhōngguo-fàn tā?	(73)		
	chǐ Zhōngguo-fàn	tā huì bu huì?	(74)		
		huì bu huì tā?	(75)		
kuàizi tā	huì	bu huì yòng chǐ Zhōngguo-fàn?	(76)		
			yòng chǐ Zhōngguo-fàn bu huì?	(77)	
		bu huì chǐ Zhōngguo-fàn?	(78)		
	chǐ Zhōngguo-fàn huì	bu huì yòng?	(79)		
		yòng bu huì?	(80)		
	yòng	chǐ Zhōngguo-fàn huì bu huì?	(81)		
		huì bu huì chǐ Zhōngguo-fàn?	(82)		

Table III

Permutations of Sentence 3: Tā huì bu huì yòng kuàizi chī Zhōngguo-fàn?
'Can he eat Chinese food with chopsticks?'

