

V340

CHINESE AS A SOV LANGUAGE

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1. INTRODUCTION

Chinese exhibits in surface structure both SVO and SOV word order. In the literature of transformational Chinese syntax, it has been assumed that the underlying order for Chinese is SVO, and the SOV order is derived through a rule of object preposing. In this paper, I would like to argue that Chinese has SOV as the underlying order, SVO being derived from SOV through a rule of NP-V inversion. This rule can be stated as:

$$\# X - NP - V \# \text{---} \rightarrow \# X - V - NP \#$$

It will be seen that the present theory is based on two grounds. First, it is able to simplify the grammatical description of Chinese by eliminating otherwise necessary language-specific rules and constraints. Second, it is capable of providing an explanation of great value for a large number of syntactic differences with respect to word order between Chinese and English on one hand and similarities in word order between Chinese and Japanese on the other hand.

2.1. The rule of NP-V inversion.

For the purpose of discussion, we will refer to a grammar of Chinese which assumes SVO underlying order as grammar A, and to the one which assumes SOV underlying order as grammar B.

No matter if we adopt grammar A or grammar B, the rule of NP-V inversion is needed in order to account for the fact that the indefinite subject of some intransitive verbs can be moved to the rear of the predicate (as illustrated in (1) and (2)).

- (1) a. you sange keren laile
(there) (three) (guests) (come-asp.)
Three guests have come.
- b. laile sange keren
- (2) a. you sange keren zoule
Three guests have left.
- b. zoule sange keren

The rule of NP-V inversion is also needed in both grammar A and grammar B to account for the fact that the governing noun of a genitive construction can be moved to the rear of an intransitive verb when the genitive marker de is dropped (as shown in (3) or (4)).¹

- (3) a. ta de piqi hao
(he) (genitive-marker) (temper) (good)
His temper is good.
- b. ta hao piqi
- (4) a. ta de fuqin sile
His father died.
- b. ta sile fuqin

In both grammars, the rule of NP-V inversion is also needed to account for the fact that the underlined NP in sentences like (5) a can be postponed to the rear of an intransitive verb.²

- (5) a. wuge pingguo li sange lanle
(five) (apple) (inside) (three) (rotten)
Of the five apples, three are rotten.
- b. wuge pingguo li lanle sange
- c. wuge pingguo lanle sange

It can be seen in (5) that the real subject is the noun phrase "three apples." Thus, when a noun phrase serves as a subset of a set (or as a part of a whole), it can be postponed to the rear of an intransitive verb.

The data of (1)-(5) therefore justifies a rule of NP-V inversion in the Chinese grammar, regardless of whether we assume SOV or SVO as the underlying order for Chinese.

2.2. Ba and Bei constructions

Consider

- (6) a. wo dale Zhangsan
(I) (hit-asp.) (John)
I hit John.
- b. wo ba Zhangsan dale
(Object-marker)
- c. Zhangsan bei wo dale
(passive-marker)
John was hit by me.

In grammar A, (6a) is the basic form. In grammar B, however, the front of the verb to get sentences like (6b), and a passive rule which will take the object to the beginning of a sentence to render sentences like (6c).³ In grammar B, however,

(6b) is the basic form. To get (6a), we can make use of the rule of NP-V inversion, and thus the rule of preposing the object to the front of the verb can be removed.

Although the passive rule is needed in both grammars, it can be shown that while the passive rule in grammar A has to be treated as a language-specific rule in Chinese, the passive rule in grammar B can be regarded as identical to that of English. The argument is based on an analysis in which the passive rule in both languages can be considered as essentially involving the change of SO order into OS order, which is presumably a plausible universal characterization of the process of passivization. In contending that English has VSO underlying order, McCawley (1970) argues that the passive rule in English moves the subject to the end of the clause, and the object will then automatically follow the verb directly and finally become surface subject by a rule of V-NP inversion. Thus, in McCawley's analysis, the passive rule of English is a process which takes the subject to the end of the clause, McCawley's analysis can, however, achieve the same goal, if we assume that the rule of passive in English involves the change of SO order into OS order before the rule of V-NP inversion applies. If so, we can further assume that Chinese and English have the same passive rule, which is essentially a process of switching the order between subject and object. This kind of assumption is only compatible with grammar B, and not with grammar A.

2.3. The ordering relation between the relative clause and the head noun.

In most cases, a Chinese relative clause is ordered before the head noun in surface structure with de as a relative marker.

- (7) xihuan meiguó dianying de neige nühaizi shì wǒ mèimei.
(like) (American) (movie) (de) (that) (girl) (be) (my) (younger sister)
The girl who likes American movies is my younger sister.

However, when the head noun is indefinite and in a predication built on the existential verb you, the relative clause can follow the head noun with de marker omitted.⁴ This can be exemplified by (8b).

- (8) a. wǒ yǒu yige xihuan meiguó dianying de mèimei
I have a sister who likes American movies.
- b. wǒ yǒu yige mèimei xihuan meiguó dianying

Given (7) and (8), one can have two alternatives. One alternative is to assume that the relative clause in Chinese is ordered before the head noun in underlying structure and is reordered after the head noun by a transformation rule in the case of indefinite head nouns in a predication with you as the main verb. The other alternative is to do just the reverse.

The phenomenon of pronominalization in Chinese seems to favor the second alternative. Unlike English, Chinese doesn't allow backward pronominalization under any condition. (9)-(11) sentences show that pronominalization cannot apply backward in Chinese, even if two referential noun phrases are in the relationship of "command".⁵

- (9) a. Zhangsan likai zher yihou, ta jiu mei zai hui-lai guo
After John left here, he never came back again.
- b. *ta likai zher yihou, Zhangsan jiu mei zai hui-lai guo
- (10) a. Zhangsan zoujin fangzi de shihou, wo dale ta
When John entered that house, I hit him.
- b. *ta zoujin fangzi de shihou, wo dale Zhangsan
- (11) a. wo zhaodao Zhangsan de shihou, ta yijing sile
When I found John, he was already dead.
- b. *wo zhaodao ta de shihou, Zhangsan yijing sile

To account for the pattern of pronominalization in sentences (9)-(11), it seems reasonable to assume that the rule of pronominalization in Chinese applies only forward, and not backward. This general assumption, however, has to take exception in the case of pronominalization in relative clauses. In Chinese, if a noun phrase within the relative clause is co-referential to the head noun and cannot be deleted by the head noun, it must be pronominalized.⁶ This is exemplified by sentences (12)-(14).

- (12) zuotian wo dale ta yidun de neige nanhaizi shi wo didi
The boy whom I hit yesterday is my younger brother.
- (13) wo geile ta yiben shu de neige nanhaizi shi wo didi
The boy to whom I gave a book is my younger brother.
- (14) ta muqin hen gao de neige nanhaizi shi meiguoren
The boy whose mother is very tall is American.

(12)-(14) sentences show that the rule of pronominalization has to apply backward in Chinese relative clause formation, if the relative clause is ordered before the head noun at the time the rule of pronominalization applies.

The generalization can be held that Chinese pronominalization applies only forward, if we assume that a Chinese relative clause is ordered after the head noun in underlying structure and that after the rule of pronominalization has applied, the relative clause is then preposed to the front of the head noun. This solution is obviously more desirable than the

one which assumes that pronominalization applies backward only in the case of relativization. Bach (1965) has proposed a rule of relative clause preposing

- (15) X + Noun + Rel + Y → -- → 1 + 3 + 2 + 4
1 2 3 4

He has suggested that it is not necessary to state rule (15) for individual languages, for the general linguistic theory would provide a law-like statement to the effect that if the verb is at the end of the clause, then rule (15) must obligatorily apply. Thus, if we assume that Chinese is a SOV language in underlying structure, we need not state rule (15) in the Chinese grammar.⁷ It must be noticed that the assumption that Chinese is an underlying SOV language is able to reduce the complexity of description of the Chinese grammar in three important ways. First, it simplifies the description of pronominalization in Chinese. Second, it eliminates a rule of relative clause postposing, which would otherwise be necessary for the Chinese grammar in order to derive sentences like (8b). Third, and most importantly, there is no more need to state the order relationship between the relative clause and the head noun in the underlying structure of a Chinese grammar, since it can now be assumed that in every language, the relative clause follows the head noun.

3. It has been observed in Greenberg (1963) and other works on linguistic typology that languages with SOV as the dominant word order tend to have the following features of word order:

- (16) A. relative clause before noun
B. adjective before noun
C. genitive before the governing noun
D. adverbial before the main verb
E. adverb before adjective
F. proper noun before common noun
G. identical order for question and statement
H. final particle for yes-no question
I. postpositional
J. standard before marker before adjective in comparative constructions

Regardless of the fact that these grammatical features are defined on the level of surface structure, they can still be considered as heuristics for the present discussion. For two reasons, first, they consistently appear in rigid SOV languages such as Japanese and Turkish. Second, their occurrence and co-occurrence in SOV languages can be accounted for either in terms of some very obvious conceptual generalizations or in terms of some syntactic

evidence within the framework of transformational grammar. Thus, (A)-(F) can be generalized under one single general syntactic principle to the effect that SOV languages tend to place restricting elements before restricted elements.⁸ This principle can account for the order of SOV itself, since the subject is restricting the predicate and the object is restricting the main verb.

(G) concerns the absence of two related grammatical features of questions which exist in languages like English. They are the fronting of question words and the subject-auxiliary inversion in yes-no questions. The absence of question-word movement in SOV languages has been explained by Baker (1970) and Bach (1971a). Their explanations are based essentially on two assumptions: (1) for every question, there is a higher governing interrogative verb, (2) the movement of question words is toward the governing interrogative verb on the left of the sentence. From assumption (1), it is reasonable to further assume that SOV languages have interrogative verbs at the end of a sentence. This further assumption in conjunction with assumption (2) provides an explanation for the absence of question-word movement in SOV languages. They have not provided an explanation for the fact that the fronting of question-words and the subject-auxiliary inversion in yes-no questions tend to be present or absent as a pair. Based on the fact that in English the subject-auxiliary inversion occurs not only in yes-no questions but also in Wh-questions, we can make a further assumption that the subject-auxiliary inversion is dependent on the movement of question words. The absence of subject-auxiliary inversion in SOV languages thus follows from the absence of the movement of question words.

In all SOV languages studied in Greenberg's survey, there seems to be a very clear correlation between (G) and (H). This correlation can be explained, if we adopt those assumptions about questions made by Baker (1970) and Bach (1971a) and further assume that final question particles in SOV languages are realizations of governing interrogative verbs.⁹

The presence of postpositions rather than prepositions in SOV languages can also be explained within the framework of transformational grammar. Sanders (1972) has argued that prepositions and postpositions are derived from underlying predicates by copying the underlying predicate to the noun phrase and deleting the original predicate. We can further impose a constraint on copying to the effect that when an underlying predicate is copied to a noun phrase, it cannot be copied to the side of the noun phrase which is opposite to the original predicate. This constraint on copying allows only (a) and (b) copying, and not (c) and (d).

- (17) (a) NP V - - - -> NP-V V (c) *NP V - - - -> V-NP V
(b) V NP - - - -> V V-NP (d) *V NP - - - -> V NP-V

Thus, if we adopt Sanders' arguments and the proposed constraint on copying, we can explain the fact that languages with SOV order are postpositional.

As to the (J) feature, while the order of standard before marker is analogous to that of noun before postposition, the order of comparative phrase (standard together with marker) before adjective is parallel to that of adverb before adjective. The presence of (J) feature in SOV languages can therefore be explained as long as (D), (E), and (I) features in SOV languages can be explained.

4. If we examine the word order in Chinese with these grammatical features listed in (16), we find that Chinese has all of the properties of a SOV language except that in most cases it has apparent prepositions rather than postpositions.¹⁰ In addition, Chinese has a marker-adjective order in comparative constructions. This deviation of Chinese comparatives from those of ordinary SOV languages can be considered as due to the existence of apparent prepositions in Chinese, for the phrase of marker-standard behaves like the so-called prepositional phrase in Chinese. The order of marker-standard requires, therefore, the same explanation as the order of preposition-noun.

Chinese has long been recognized as a language which is prepositional. The underlined phrase in (18) can serve as an example

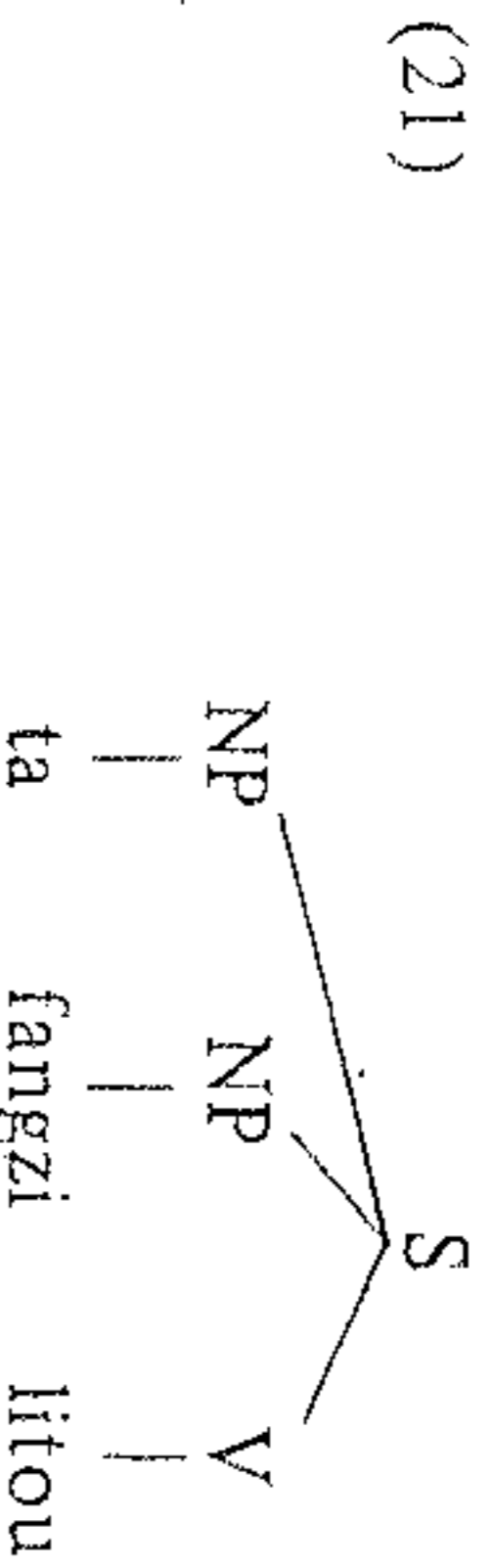
- (18) ta gen Zhangsan laile
(he) (with) (John) (came)
He came with John.

However, in locative phrases, Chinese seems to have postpositions rather than prepositions. Consider

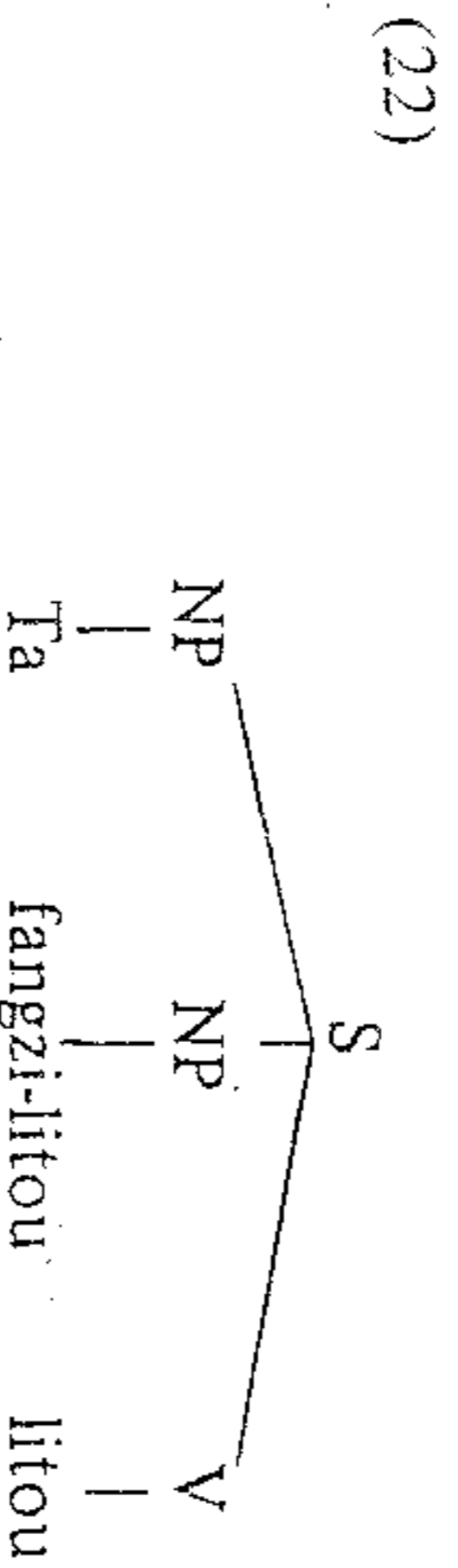
- (19) ta zai fangzi litou
(he) (locate) (house) (inside)
He is inside the house.
(20) ta zai fangzi litou ku
(cry)
He is crying inside the house.

"zai" in (19) and (20) has often been interpreted as a preposition. It is clear from examples like (19) and (20) that "zai" is only a general locative marker, and that the selection of specific locations are determined by postpositions.

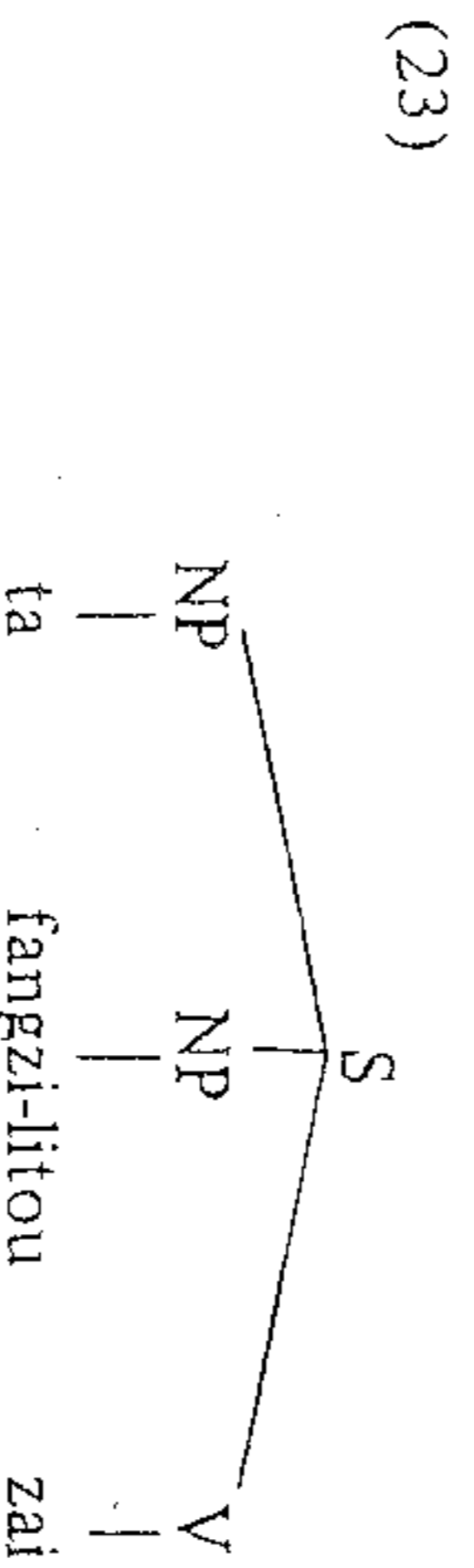
The peculiarity of Chinese locative constructions can be excellently explained within the framework of the proposed theory that Chinese is a SOV language with a rule of NP-V inversion. The deep structure of (19) can be represented as



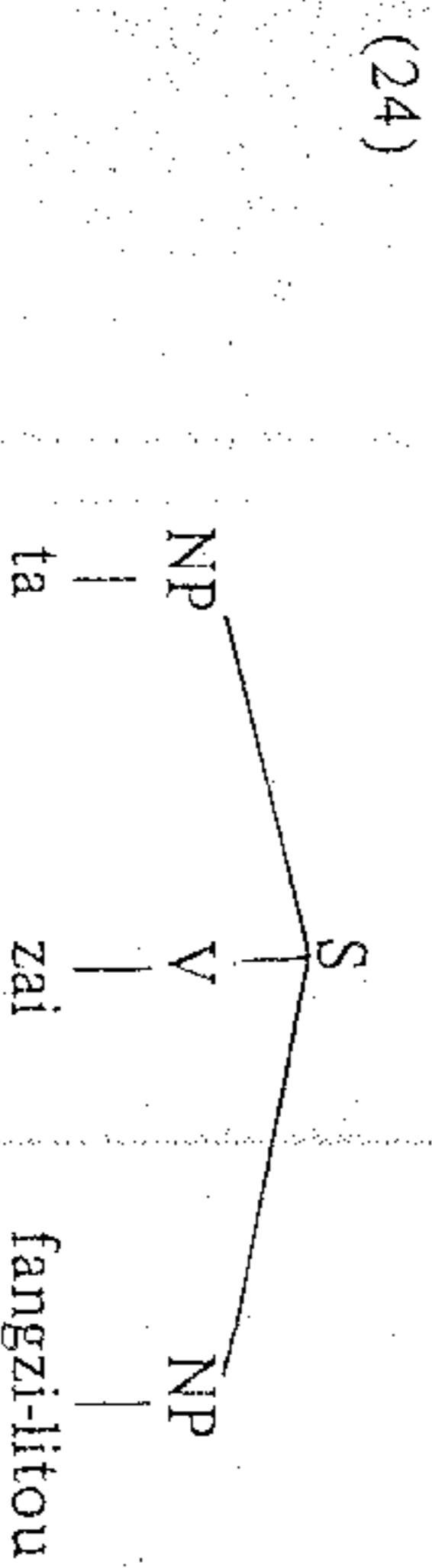
If we follow Sanders' (1972) approach of deriving prepositions and postpositions, (21) will first be converted to (22) by the rule of Copying.



The deletion rule, which in general applies to delete the source, will in this case delete all but the grammatical feature (+ location) of the source, which is later lexicalized as "zai." The result is

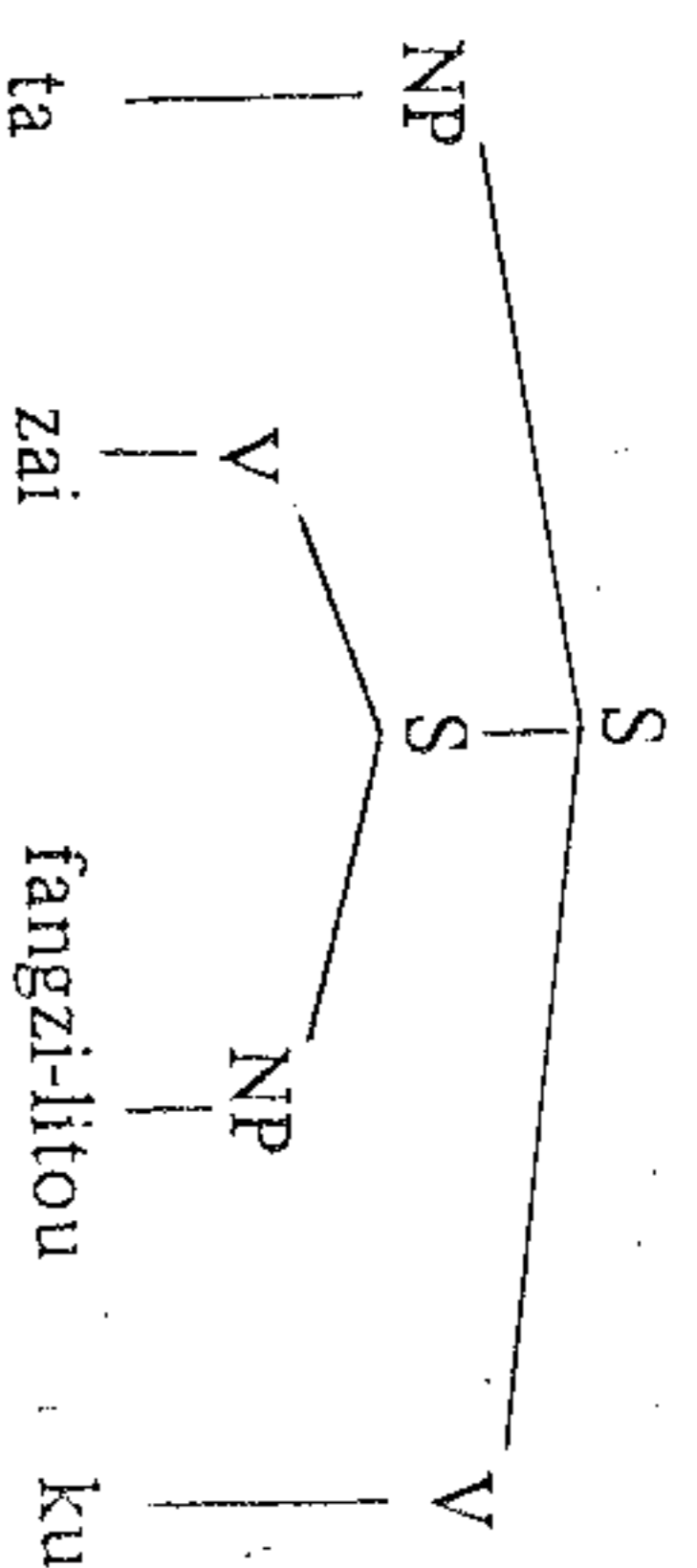


Now, the NP-V inversion rule will obligatorily apply to yield a sentence like



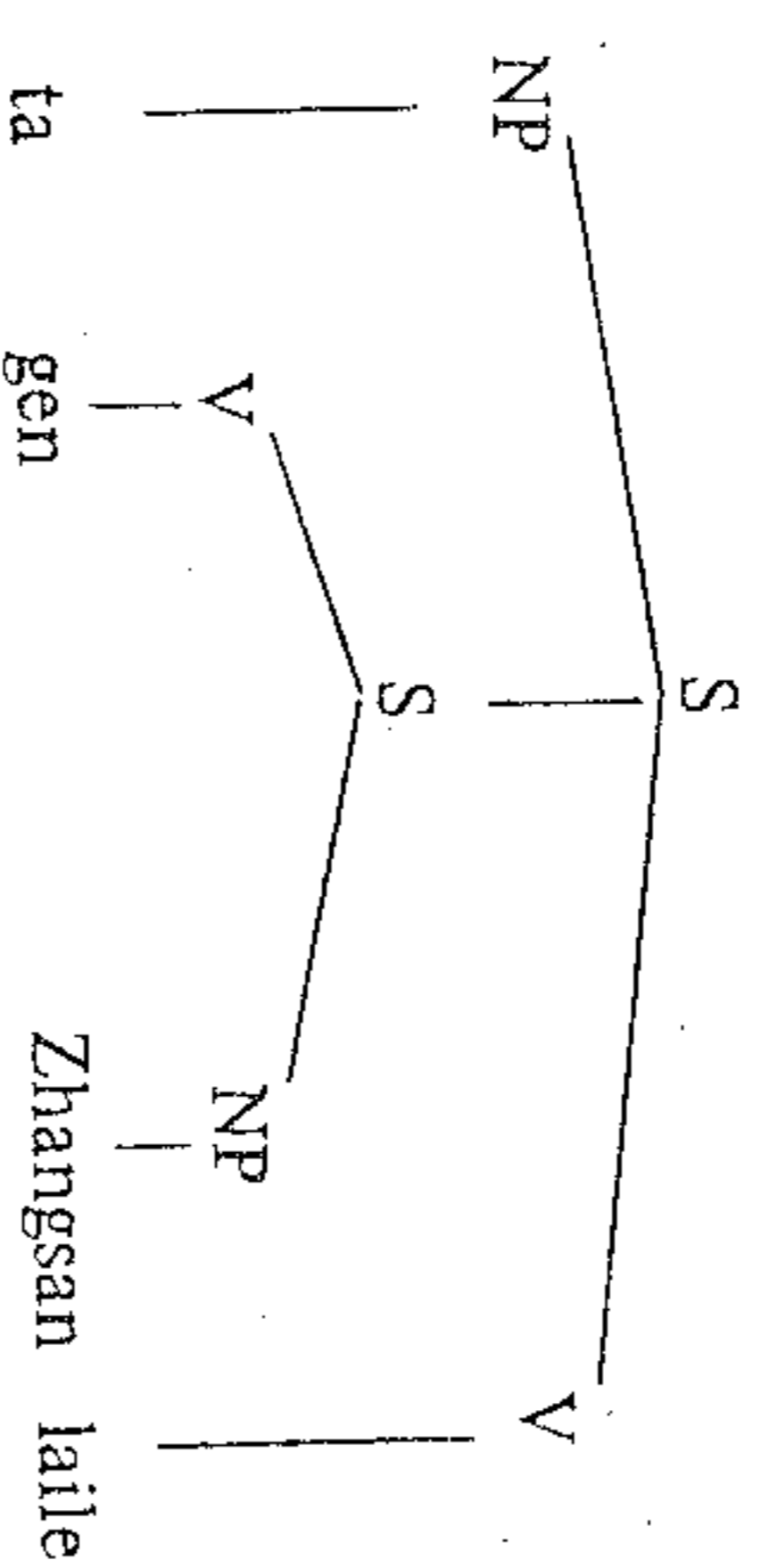
The locative adverbial phrase in (20) as the underlying higher predicate of the sentence "ta ku" (he is crying), can be derived in the same way. The derived structure of (20) in the present theory will look presumably like

(25)



Note that "zai" in (25) is represented as a verb. Similarly, (18) can be represented as

(26)



With derived structures like (24), (25), and (26), we are claiming that the so-called prepositional phrases in Chinese are in fact verbal phrases. This claim is indeed consistent with a number of grammatical features in Chinese.¹¹ In the proposed theory, Chinese therefore has only postpositions such as "litou" in sentences (19) and (20).

It is clear that the rule of NP-V inversion must be post-cyclic and upward bounded so that the NP's in the inner sentence in (25) and (26) will not move all the way to the end of the main clause and render ungrammatical sentences such as

(27) *wo zai ku fangzi-litou

(28) *wo gen laile Zhangsan

These two restrictions on the NP-V inversion is compatible with the observation that the V-NP inversion rule in English is also post-cyclic and the observation by Ross (1967) that all the rightward movement rules are upward bounded.

5. In addition to the presence of apparent prepositions, Chinese also differs from Japanese and Turkish in placing auxiliaries before the main verb. This is illustrated by

(29) wo bu neng qu
(I) (not) (can) (go)
I can not go.

I have argued elsewhere (Tai, 1971, forthcoming) that in Chinese there is a predicate place-

