

Cahiers de Linguistique Asie Orientale

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Centre de Recherches Linguistiques sur l'Asie Orientale

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All manuscripts and books submitted for review should be addressed to one of the editors. The *Cahiers* is published in one volume (2 numbers) a year.

Individual issue 75 F = 11,44 €
Subscription for 2001: European Community 150 F = 22,87 €
Other Countries 200 F = 30,49 €
Institutions 200 F = 30,49 €

Subscription prices include postage and handling.

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Verb movement and the VP shell in Chinese:
Some critical remarks*

Waltraud PAUL

On the basis of C.-T. J. Huang's work (cf. Huang 1991, 1992, 1994), it has become the standard view that verb movement in Chinese is confined to the VP shell (à la Larson 1988) and does not extend beyond it to a higher functional category. As will be shown in the present article, the feasibility of this proposal crucially relies on the extensive use of a VP shell which is provided with enough layers to accommodate verb movement within its boundaries and whose complexity goes far beyond the original proposal.
Key words : Mandarin Chinese : syntax – verb movement, VP shell.

L'idée généralement admise veut que le verbe en chinois ne se déplace qu'à l'intérieur d'un SV coquille (à la Larson 1988) et ne monte pas vers une catégorie fonctionnelle au-delà du SV (cf. Huang, 1991, 1992, 1994). Cet article va à l'encontre de cette idée reçue et démontre qu'elle ne peut être maintenue qu'à l'aide d'un SV coquille doté d'autant de couches que nécessaires afin de contenir le déplacement du verbe et dont la complexité dépasse de loin la conception originale.

Mots-clés : chinois mandarin : syntaxe – déplacement du verbe, SV coquille.

* We would like to thank Ora Matushansky and John Whitman for comments on a preliminary version of this article. Any errors or shortcomings are our responsibility.

Cahiers de Linguistique – Asie Orientale 29(2) 255-269 (2000)
© CRLAO-EHESS 54, Bd Raspail 75006 Paris
0153-3320/2000/029-255

1. INTRODUCTION

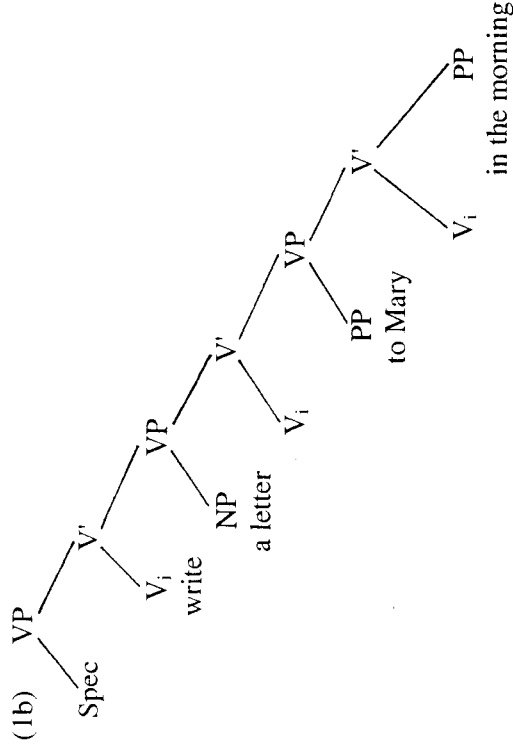
Despite numerous recent changes in current linguistic theory concerning the architecture of the VP and the related issue of verb movement, many analyses are still based on the concept of the VP shell as introduced by Larson (1988). This also holds for Chinese linguistics, where a particularly elaborated version is used in order to maintain the claim that the verb never raises to a position beyond the VP shell, a property which is said to distinguish Chinese from other languages like e.g. English or French (cf. Huang 1991, 1992, 1994 among others).

We will argue that the numerous modifications needed in order to be able to apply the VP shell analysis to Chinese not only go far beyond the original proposal, but are also in conflict with one of its fundamental assumptions.

2. THE THEMATIC HIERARCHY PROPOSED FOR CHINESE

According to Larson (1988), the VP in a sentence like (1a) is assigned the structure (1b) where the verb moves into the topmost empty V node:

(1a) I wrote a letter to Mary in the morning



The crucial hypothesis at work here is the *Single Complement Hypothesis* which states that a head allows only one complement. Accordingly, only a binary branching structure is possible and additional empty heads are necessary to license both arguments and (postverbal) adjuncts. In effect, for Larson (1988: 345, footnote 1), "adverbs are not the outermost adjuncts of V, but rather its innermost complements" i.e., the verb first combines with the adverb, in this case with the adverbial PP *in the morning*.

Furthermore, Larson (1988: 382-383) proposes the thematic hierarchy in (2) and a principle which assigns the lowest role on the thematic hierarchy to the lowest position in constituent structure:

(2) Agent > Theme > Goal > Obliques (manner, location, time etc.)

Since this thematic hierarchy makes wrong predictions for Chinese, Huang (1991:498) has to introduce a series of modifications in order to obtain the appropriate hierarchy for Chinese:

- (3) Agent > Experiencer > ref. theme > goal, ind. object > Obliques:
 non-refer. theme
 direction/goal
 duration/frequency
 manner etc.

The most important change introduced by Huang (ibid.) consists in excluding "true adjuncts like temporal, (outer) place, and preverbal manner adverbs" from the set of obliques. For in contrast to English (cf. the acceptable translations of (4) – (6)), adverbs of time, location, and manner cannot appear in postverbal position in Chinese, but must occur preverbally. Consequently, as already noted by Tang Chih-chen (1990:176-177) they cannot be placed at the lower end of the thematic hierarchy:

- (4a) *Ta da -le wo henhende¹
 3SG beat-PERF ISG fiercely
 'He beat me fiercely.'
- (4b) Ta henhende da -le wo
 3SG fiercely beat -PERF ISG
 'He beat me fiercely.'
- (5a) *Wo chi fan zai ta -de jia
 ISG eat food at 3SG-SUB home
 'I eat at his place.'
- (5b) Wo zai ta -de jia chi fan
 ISG at 3SG-SUB home eat food
 'I eat at his place.'

¹ The following abbreviations are used in glossing examples: CL classifier; EXP experiential aspect; NEG negation; PART sentence-final particle; PERF perfective aspect; PL plural (e.g. 3PL = 3rd person plural); SG singular; SUB subordinator.

- (6a) *Ta kanjian -le ni zuotian
 3SG see -PERF 2SG yesterday
 'He saw you yesterday.'
- (6b) Ta zuotian kanjian-le ni
 3SG yesterday see -PERF 2SG
 'He saw you yesterday.'

(Tang 1990:177 ex. (20a-c))

Secondly, thematic roles like *goal* and *theme* have to be "split up" into several sub-cases with distinct ranks in the hierarchy, because the NPs carrying these roles occupy different positions in the VP, depending on their (in-)animacy and (non-)referentiality. For reasons of space, we will illustrate this for the role *theme* only.

To begin with, a difference is made between "outer" theme and "inner" theme, the former being higher in the hierarchy than the latter. This distinction is necessary for complex predicates in the form of verb-object phrases as illustrated in (7):²

- (7) Xiaoxin, ta [_{VP}[_V zhan. [_{VP} ni [_V *lv* pianyi]]]]³
 be:careful 3SG seize 2SG advantage
 'Be careful, he's taking advantage of you.'

Ni 'you' represents the outer theme i.e., the NP selected by the verb-object phrase *zhan pianyi* 'seize advantage = 'take advantage of sb.' and accordingly precedes the inner theme *pianyi*.

It is furthermore necessary to distinguish between referential theme and non-referential theme, because "non-referential theme must occur in V', whereas a referential theme may

² Cf. Paul (1988) for a detailed study of this type of complex predicate.

³ We leave aside the trace of the subject NP.

occur in a higher position" (Huang 1991:492; emphasis mine).⁴ The difference between these two kinds of theme is reflected in their different ordering with respect to expressions of frequency or duration (ranked among the obliques at the bottom of the hierarchy).⁵

- (8a) Ta [VP [V deng-le [VP [NP wo / ta -de xuesheng]
3SG wait-PERF ISG/ 3SG-SUB student
[V tv [NP san-tian]]]]]
3 -day
'He waited three days for me/for his students.'

- (8b) *Ta deng-le [NP san-tian] [NP wo / ta -de xuesheng]
3SG wait-PERF 3 -day ISG/ 3SG-SUB student

- (9a) *Ta [VP [V deng-le [VP xin [V tv san-tian]]]]
3SG wait-PERF letter 3 -day

- (9b) Ta deng-le [san-tian xin]
3SG wait-PERF 3 -day letter
'He waited three days for mail.'

⁴ The *may* in Huang's statement is important here because if there is no expression of duration like *san-tian* 'three days', a referential theme like *wo* 'I' or *ta-de xuesheng* 'his student(s)' appears as a sister to the verb:

(i) Ta deng-le wo / ta -de xuesheng
3SG wait-PERF ISG/ 3 SG -SUB student
'He waited for me/for his students.'

⁵ The necessity of distinguishing between various types of themes shows that at least for Chinese the VP shell analysis is equally problematic for arguments, and not only for adjuncts. The latter cannot be treated as innermost complements because they are excluded from the postverbal position (cf. (4) – (6) above). Also cf. Ernst (1992) who argues against adopting a VP shell analysis for adjuncts in English.

(8a) is grammatical because the expression of duration *san-tian* 'three days' occupies the only position admissible for an oblique i.e., that to the right of the verb, while a referential theme like *wo* 'I' and *ta-de xuesheng* 'his student(s)' may occur outside V-bar. (8b) and (9a), by contrast, are both ruled out, for in each case a constituent confined to V-bar i.e., the oblique *san-tian* 'three days' in (8b) and the non-referential theme *xin* 'letter' in (9a), occurs elsewhere higher in the VP shell. As for example (9b), we will present a detailed analysis immediately below (cf. section 3). Suffice it to say for the moment that (9b) is acceptable because the expression of duration forms one constituent with the object NP, (9b) literally meaning something like 'He waited for [three hours' mail]'. In other words, both *san-tian* 'three days' and *xin* 'letter' occur within V-bar as required.

So far we have seen some of the important changes necessary to obtain an appropriate thematic hierarchy for Chinese.⁶ We will now turn to the central claim of the VP shell analysis i.e., the existence of empty verb positions.

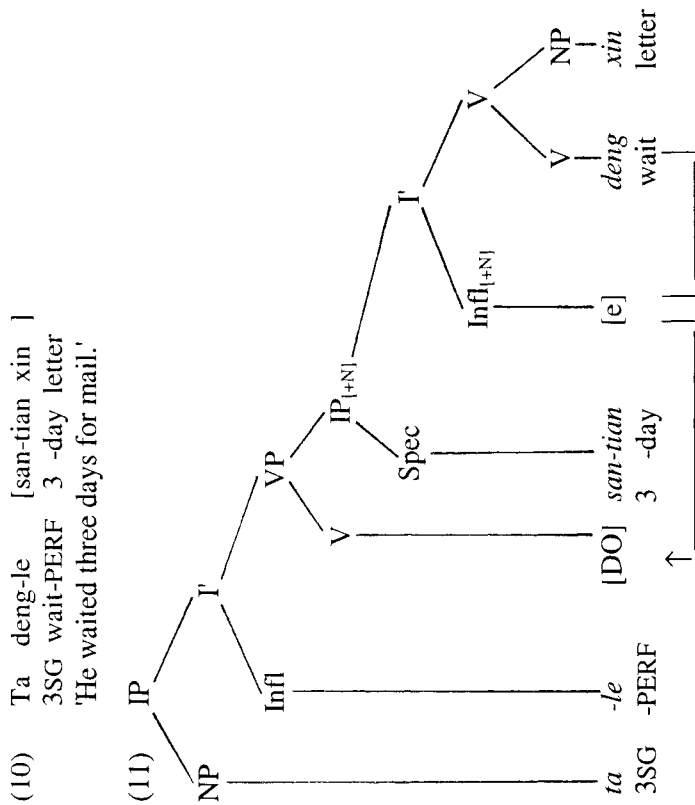
⁶ For the reader's convenience, the complete list of changes proposed by Huang (1991:498) is summarized below:

"This [i.e., the thematic hierarchy proposed for Chinese, cf. (3) above; W.P.] follows Larson (1988) in part, but also differs from him in important respects. First, it is not crucial whether the double object construction (containing goal and theme) is derived from the dative construction by movement or not. In fact, it can be simply assumed that in case a sentence contains an animate goal and a theme, either can be higher than the other in the hierarchy. Secondly, under 'obliques', I do not include true adjuncts like Temporal, (outer) place, and preverbal Manner adverbs. As Tang (1990) has shown, these clearly have a position higher than Theme, and should not be placed within V'. [...] Thirdly, in addition to the distinction between referential Theme and non-referential Theme, we also make a distinction between (a) Outer Theme and Inner Theme [...]. (b) two kinds of Goal (animate vs. unanimate) and two kinds of manner adverbs (the preverbal adjunct and postverbal secondary predicate). In each pair indicated here, the first member must occupy a position higher than the second in the Thematic Hierarchy and in unmarked syntactic structure."

3. THE LANDING SITE FOR VERB RAISING WITHIN THE VP SHELL

In Larson's (1988) framework empty verb positions serve to build up the VP shell with its several layers providing appropriate positions for the hierarchically different arguments; the highest of these verb positions functions as the landing site for the raised verb.

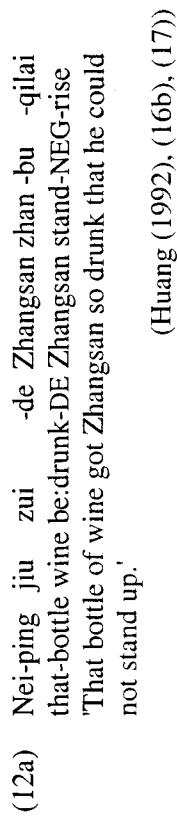
Huang introduces quite a substantial modification insofar as he reinterprets the nature of the topmost empty verb position from a mere landing site for the raised verb to the host of an abstract eventuality predicate. To illustrate this point, let us look at the analysis he proposes for (9b) above, repeated here for convenience in (10):



(= Huang's (1992:295) figure (21) adapted to our example (10))

As Huang (1992:295) points out, we have an apparent syntax-semantics mismatch here, because the expression *san-tian* 'three days' which in fact indicates the duration of the action expressed by the VP, is presented as quantifying a non-event-denoting NP. He solves this mismatch by proposing to analyze sentences like (10) as being "[...] derived from a structure of gerundive nominalization whose verbal head has moved out of the gerund VP, into the position of the higher eventuality predicate DO [...]". Accordingly, in (11), *san-tian* 'three days' does not modify the object NP *xin* 'letter', but rather modifies the gerund Infl-bar *deng xin* 'waiting for mail'. After the verb has raised through the intermediate nominal *Infl* to the empty verb position (associated with the abstract eventuality predicate DO) and after the perfective aspect suffix *-le* has been lowered, we correctly obtain the observed surface form *Ta deng-le san-tian xin*.

This analysis is very ingenious and ties together a number of otherwise unrelated properties of this construction. The status of the topmost verb position, however, has completely changed with respect to Larson's proposal. It is no longer simply the highest one among the empty verb positions in the VP shell. Rather, Huang (1992) assumes that it is occupied by an abstract eventuality predicate indicating the event type of the verb involved viz., DO for activity verbs (including unergatives and transitives), BE or HOLD for statives, CAUSE for causatives etc. Being phonetically empty, these eventuality predicates trigger verb movement, as illustrated for DO in (11) above and for CAUSE in (12) and (13) below:



(12b) Nei-ping jiu [vp CAUSE
that-bottle wine

[vp Zhangsan zui -de zhan-bu -qilai]]
Zhangsan be:drunk-DE stand-NEG-rise

(13a) Zhei-chang dianying kan -de wo xin-jing-dan-shen
this -CL film look-DE ISG tremble:with:fear
'This film made me tremble with fear (when watching it).'

(13b) Zhei-chang dianying [vp CAUSE [vp wo kan -de
this -CL film ISG look-DE

xin-jing-dan-shen]]⁷
tremble:with:fear

(= Huang (1987), (39))

This proposal, however, creates new problems which will be discussed in the next section dealing with the drawbacks of a VP shell analysis for Chinese.

4. PROBLEMS FOR HUANG'S VP SHELL ANALYSIS

The preceding discussion has shown that quite heterogeneous material is assumed to appear within the Chinese VP shell argued for by Huang. Causative constructions illustrated in (12) and (13) are a case in point because they highlight the problematic character of Huang's proposal to analyse the topmost verb position in the VP shell as an abstract eventuality predicate. For unlike DO, which might be assumed to be part of the event structure of activity

⁷ Huang does not give a more detailed analysis e.g. in form of a tree structure for the causative construction. Nor does he indicate the nature of *de*. Since the latter is controversial, we will follow Huang in glossing *de* simply as DE.

verbs, CAUSE cannot be argued to be part of the event structure for the verbs *zui* and *kan* in the same way. For neither *zui* 'to be drunk' nor *kan* 'to look' are causative verbs, but rather a stative verb and an activity verb, respectively. Though Huang (1992:294) comments on the non-causative character of these verbs and contrasts the syntactic causativization in the presence of a resultative predicate in Chinese with the lexical causativization in the case of English verbs like *break* etc. he does not carry this difference over to the status of CAUSE itself.

It seems evident, however, that CAUSE cannot be compared to an eventuality predicate like DO and probably is not even contained within the VP shell. Much further research is needed, but it is not excluded that CAUSE might turn out to be a functional head. Under this assumption, Huang's raising analysis of the causative construction would then involve verb movement beyond the VP shell to a functional category.

There is another construction which is quite problematic for a VP shell analysis, namely the *verb-copying construction*.⁸ In this very common construction, descriptively speaking the "same" verb appears twice, first followed by its object and then by an expression of duration or frequency:

(14) Ta deng xin deng-le san-tian
3SG wait letter wait-PERF 3 -day
'He waited three days for mail.'

If one attempts to account for this construction using a VP shell, the most obvious difficulty is how to accommodate both occurrences of the verb in the VP shell. For with the exception of the highest verb position, all the other verb positions are assumed to be empty. Also, given that both a non-referential theme and an

⁸ Though Huang (1991) gives examples of verb copying, he does not take them into account for his VP shell analysis. For more details on the verb-copying construction, cf. Huang (1982, ch. 2), Paul (1988, ch. 3), Paul (to appear).

expression of duration are likewise ranked under obliques, it is not clear what determines their relative order, which can only be 'non-referential theme > expression of duration', as evidenced by the ungrammaticality of (15):

- (15) *Ta deng san-tian deng-le xin
3SG wait 3 -day wait-PERF letter

In fact, it is sufficient to look at the distribution of adverbs and negation in the verb-copying construction in order to understand that this construction cannot be analysed in terms of a VP shell, because the first occurrence of the verb, *V*₁, clearly occupies a position outside the VP:

- (16) Ta (*renzhende / *zhi) kan shu
3SG conscientiously/ only read book
renzhende / zhi kan -le yi-ge xiaoshi
conscientiously only read-PERF 1 -CL hour
'He conscientiously/only read for one hour.'

- (17) Wo (*yijing) qi ma
1SG already ride horse

yijing qi -le haoji -ci le
already ride-PERF many-time PART
'I have ridden on a horse already many times.'

- (18) Wo jintian (*bing mei-you) chi fan
1SG today at:all NEG eat food

bing *mei-you* chi de hen bao
at:all NEG eat DE very full
'I have not eaten to my satisfaction at all today.'
(Mei 1988, (10))

VP-level adverbs and negation are not allowed in front of the first verb *V*₁, but must precede the second verb *V*₂. Given the now standard assumption that adverbs of this type indicate the left edge of the vP, *V*₁ accordingly occupies a position above vP (for more details cf. Paul (to appear)). The structure assigned so far to the verb-copying construction with both *V*₁ and *V*₂ inside the VP can therefore not be correct (cf. Huang 1982, 50):

- (19) Ta [VP [*V*₁ kan : dianshi] [*V*₂ kan -le san-ge xiaoshi]]
he watch TV watch-PERF 3 -CL hour
'He watched TV for three hours.'

The verb copying construction is particularly important for our discussion here because it equally invalidates the "updated" version of the claim that verb movement in Chinese is confined to the VP (cf. e.g. Tang Sze-Wing 1998).⁹ In this variety, the relevant domain delimiting verb movement in Chinese is now vP i.e., the projection of small *v* which - taking a VP complement and serving as the landing site for the raised verb - acts as the equivalent of the topmost verb position in the VP shell.

5. CONCLUSION

The claim that Chinese has no raising of the verb to a functional category above the vP/VP has been shown to crucially hinge on the adoption of a very powerful VP shell. This particular conception of the VP shell is, however, far from self-evident and encounters numerous problems, some of which we have pointed out. Consequently, the issue of verb movement in Chinese is far from being settled and needs to be reconsidered.

⁹ Tang (1998: 93) explicitly identifies the position of adverbs with the left edge of vP: "[...] given that *V* never moves out of vP in Chinese, the adverb always stays in the preverbal position [...]."

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