

## Syntactic Change in Chinese and the Argument-Adjunct Asymmetry

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The word order in Chinese has always been SVO, from the earliest attested documents (14<sup>th</sup>-11<sup>th</sup> c. BC) up to Modern Mandarin. Examined carefully, the observed SOV cases in pre-Archaic Chinese turn out to either involve focalization of the object or object pronouns in the context of negation. Importantly, both structures observe head-complement order, i.e. a pattern consistent with VO. This removes any coherent basis for the claim that pre-Archaic Chinese was a SOV language. Against this background of stable VO order, important changes can, however, be observed for the distribution of adjunct phrases, from both pre- and postverbal position in pre-Archaic Chinese to exclusively preverbal position in Modern Mandarin, reflecting changes in the format of the *v*P.

Key words: word order SVO vs. SOV, argument vs. adjunct, cleft construction, pre-Archaic Chinese, Shang inscriptions, Modern Mandarin

### 1. Introduction

This paper argues for what historical linguists have long called the *uniformitarian principle*: the postulate that the same principles of analysis that apply to synchronic grammars also apply to earlier stages of a language. To apply distinct methodologies is simply incompatible with the fact that each (past or present) synchronic stage represents a stable system which can be acquired by a learner and hence must be consistent with the universal constraints observed for language in general (for an extensive discussion of this issue, cf. Hale 1998, 2007).

Unfortunately, many diachronic studies on Chinese take the linear sequence at face value and do not offer a structural analysis. However, as pointed out by e.g. Hale (2007: 5) “It is not possible in any meaningful sense to know what ‘changed’ between Stage I and Stage II of some ‘language’ without knowing what Stage I and Stage II were, as synchronic systems.”

A good case at hand is the issue of word order in Chinese. According to Li & Thompson (1974:208) pre-Archaic Chinese<sup>1</sup> (< 12<sup>th</sup> c. BC) was an SOV language, which changed to SVO between the 10<sup>th</sup> and the 3<sup>rd</sup> c. BCE, before starting to shifting back to SOV, a change purported to be still incomplete in Modern Mandarin.

Besides the fact that Li & Thompson did not take into account the available data for pre-Archaic Chinese, their incorrect (but still influential) statement concerning major word order changes attains superficial plausibility only because they (as well as subsequent linguists taking up their claim) at no point provide an analysis of the alleged SOV cases.

Examined carefully, all of the observed SOV cases in pre-Archaic Chinese turn out to either involve focalization of the object or object pronouns in the context of negation. Importantly, the relevant focus pattern in pre-Archaic Chinese was restricted to a type of cleft construction, where the focused constituent follows an item that functions as a matrix copular predicate. Needless to say this pattern instantiates VO order. Likewise, under an analysis where the object pronoun occupies the specifier of a functional projection the examples illustrating an at first sight preverbal object position also show a head-complement structure. This removes any coherent basis for the claim that Chinese was predominantly SOV before the 11<sup>th</sup> c. BC.

While Chinese has always been SVO, from the earliest textual sources, the Shang inscriptions (14<sup>th</sup>-11<sup>th</sup> c. BC), up to Modern Mandarin, there have been important changes in the distribution of adjunct phrases, from both pre- and postverbal position in pre-Archaic Chinese to exclusively preverbal position in Modern Mandarin, reflecting changes in the format of the vP (cf. Djamouri & Paul 1997, 2009).

## 2. VO word order in the Shang inscriptions (14<sup>th</sup>-11<sup>th</sup> c. BC)

Formal studies on Chinese historical syntax rarely include the earliest sources from the pre-Archaic Chinese period, i.e. the Shang inscriptions (14<sup>th</sup>-11<sup>th</sup> c. BC), although the latter constitute the very basis for examining the subsequent development of Chinese

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<sup>1</sup> Current Western terminology for the periods of older Chinese is confusing for the neophyte. Karlgren (1923) uses the term “Archaic Chinese” to refer to the language of the early and middle Zhou period (11<sup>th</sup> c. - 221 BC), as it is reconstructed on the basis of (i) the rhymes in the *Shi Jing* (*Book of Odes*) (roughly 800-600 BC), (ii) the phonetic series revealed by the Chinese script, and (iii) information available from Middle Chinese (6<sup>th</sup> and early 7<sup>th</sup> c. AD). More recently, in historical phonology, the term “Old Chinese” has replaced the term “Archaic Chinese” (cf. Baxter 1992, Sagart 1999:4). Following the periodicization established by Peyraube (1988), “Pre-Archaic Chinese” in this paper refers to the language of the Shang bone inscriptions (14<sup>th</sup>-11<sup>th</sup> c. BC), which antedates Old Chinese and Middle Chinese. Note that Chinese is thus a language whose syntax is recoverable at an earlier stage than its phonology.

syntax. Of the 26,000 complete sentences in the Shang corpus, 94% have SVO order, and only 6% SOV (cf. Chen Mengjia 1956, Djamouri 1988, Shen Pei 1992 a.o.).

## 2.1 The postverbal position as canonical position for arguments

The argument(s) subcategorized for by a verb occupy the postverbal position. This holds both for argument NPs ((1)-(4)) and PPs ((5)-(9)). Accordingly, both the direct and the indirect object follow the verb in the double object construction (cf. (3), (4), (6)).

- (1) 王伐舌方  
wáng fá [<sub>NP</sub> gōng fāng]<sup>2</sup> (Heji 6223)  
king fight Gong tribe  
‘The king will fight the Gong tribe.’
- (2) …王罝麋…  
wáng jǐng mí (Heji 10361)  
king trap elk  
‘The king will trap elks.’
- (3) 帝受我年  
dì shòu [<sub>IO</sub> wǒ] [<sub>DO</sub> nián] (Heji 09731 *recto*)  
Di give us harvest  
‘[The ancestor] Di will give us a harvest.’
- (4) 出祖乙三宰  
yòu zǔyǐ sān láo (Heji 01610)  
present Zuyi three penned:sheep  
‘One will present to Zuyi three penned sheep (as sacrifice).’
- (5) 王往于田  
wáng wǎng [<sub>PP</sub> yú tián] (Heji 00635 *r.*)  
king go to field  
‘The king will go to the fields.’
- (6) 出于祖乙一牛  
yòu [<sub>PP</sub> yú zǔyǐ] [<sub>NP</sub> yī niú] (Heji 06945)  
present to Zuyi one ox  
‘One will present to Zuyi an ox (as sacrifice).’

<sup>2</sup> The following abbreviations are used in glossing examples: CL classifier; DUR durative aspect; EXP experiential aspect; NEG negation; PART sentence-final particle; PERF perfective aspect; PL plural (e.g. 3PL = 3<sup>rd</sup> person plural); SG singular; SUB subordinator.

- (7) 子商亡斷在囧 (Heji 02940)  
 zǐ shāng wáng duàn [pp zài huò]  
 prince Shang NEG end in misfortune  
 ‘The prince Shang will not end in misfortune.’
- (8) 方允其來于沚 (Heji 6728)  
 fāng yǔn qí lái [pp yú zhǐ]  
 Fang effectively FUT come to Zhi  
 ‘Fang will effectively come to Zhi.’
- (9) 我乎往于西 (Heji 10050)  
 wǒ hū wǎng [pp yú xī]  
 IPR order go to west  
 ‘We will order to go west.’

The rich corpus of data from Pre-Archaic Chinese clearly invalidates Li & Thompson’s (1974:208) claim that ‘pre-Archaic Chinese’ (< 12<sup>th</sup> c. BC) was an SOV language, which changed to SVO between the 10<sup>th</sup> and the 3<sup>rd</sup> c. BC. As for the subsequent alleged “gradual” shift “back” to SOV, a change purported to be not completed yet, i.e. 2000 years after it started, it does not bear further scrutiny, either. It is simply not correct to view Modern Mandarin as still in the process of “becoming” “more and more” SOV (cf. §4 below). Chinese is and has always been VO, and there is thus no basis whatsoever for a “cyclic change” ‘OV > VO > OV’.

Concerning the (surface) SOV cases in Pre-Archaic Chinese, they can be divided into two classes, i.e. focalization of the object, on the one hand, and object pronouns in the context of negation, on the other. Crucially, both turn out to involve head-complement configurations consistent with VO. For reasons of space, we will limit ourselves to focalization of the object. (For a detailed discussion of the structure ‘Neg pronoun V’, cf. Djamouri 2000).

## 2.2 Focalization structures

Complete sets of predictions in the Shang inscriptions such as (10)-(11) permit us to identify superficial OV structures as clear cases of focalization. (10) presents a prediction in the form of a simple assertion displaying VO order. Against this background, two alternatives, (11a-b), are proposed. In these alternatives, ‘follow someone (in order to fight Xia Wei)’ presents the presupposition, and the object of the verb *bǐ* ‘follow’ the focus:

- (10) 王比望乘伐下危 (Heji 6476)  
 wáng bǐ wáng chéng fā xià wēi  
 king follow Wang Cheng fight Xia Wei  
 ‘The king will follow Wang Cheng to fight Xia Wei.’
- (11) a. 王勿唯望乘比 (Heji 6476)  
 wáng wù wéi [NP wáng chéng] bǐ  
 king NEG be Wang Cheng follow  
 ‘It must not be Wang Cheng that the king will follow.’
- b. 王亟望乘比 (Heji 6476)  
 wáng huì [NP wáng chéng] bǐ  
 king must:be Wang Cheng follow  
 ‘It must be Wang Cheng that the king will follow.’

All of the attested examples where an argument NP or PP occupies a (surface) preverbal position involve focalization. Importantly, the relevant focus pattern in pre-Archaic Chinese was restricted to a type of cleft construction, as in modern Mandarin *shi...de* clefts (cf. Paul & Whitman 2008). The cleft structure is clear in (11a-b), where the focused constituent *Wáng Chéng* follows the negated matrix copula *wù wéi* ‘NEG be’ in (11a) and the modal matrix copula *huì* ‘must be’ in (11b). On the cleft analysis, the focused constituent is postverbal, because to the right of the copula: it occupies the specifier position of the projection selected as complement by the copula. Accordingly, this construction illustrates head-complement, not complement-head order. The same facts are exemplified in the discourses in (12)-(15), where the same matrix copula elements *huì* and (*wù*) *wéi* are attested.

- (12) a. 王亟易白焱比 (Heji 6460 r.)  
 wáng [VP huì [[NP yáng bó shǐ]<sub>i</sub> [VP bǐ t<sub>i</sub>]]  
 king must:be Yang lord Shi follow  
 ‘It must be Shi, lord of Yang, that the king will follow.’
- b. 王勿唯易白焱比 (Heji 6460 r.)  
 wáng [NegP wù [VP wéi [[NP yáng bó shǐ]<sub>i</sub> [VP bǐ t<sub>i</sub>]]]  
 king NEG be Yang lord Shi follow  
 ‘It must not be Shi, lord of Yang, that the king will follow.’
- (13) a. 王勿唯龍方伐 (Heji 6476)  
 wáng [NegP wù [VP wéi [[NP lóng fāng]<sub>i</sub> [VP fá t<sub>i</sub>]]]  
 king NEG be Long tribe fight  
 ‘It must not be the Long tribe that the king will fight.’

- b. 王蚩龍方伐 (Heji 6476)  
 wáng [vP huì [[NP lóng fāng]<sub>i</sub> [vP fǎ t<sub>i</sub>]]]  
 king must:be Long tribe fight  
 ‘It must be the Long tribe that the king will fight.’

- (14) 蚩羊侑于母丙 (Heji 2523)  
 [vP huì [[NP yáng] [vP yòu [PP yú mǔ bǐng]]]]  
 must:be sheep offer to ancestress Bing  
 ‘It must be a sheep that one will offer to Ancestress Bing.’

- (15) 唯祖乙侑丙 (Heji 1573)  
 [vP wéi [[NP zǔyǐ] [vP yòu pǒ]]]  
 be Zuyi offer *po.sacrifice*  
 ‘It is to Zuyi that one will offer a *po* sacrifice.’

To summarize, the preceding discussion has shown the importance of a precise syntactic analysis of the synchronic stage at hand. The surface ‘O V’ sequence in focalization structures turns out to involve head-complement order in accordance with the main word order ‘VO’. The fact that argument PPs pattern with argument NPs and occur in the postverbal position (cf. §2.1) further corroborates the head-initial property of clause structure in pre-Archaic Chinese.

### 3. Distribution of adjunct phrases

Unlike arguments, adjuncts (both PPs and NPs) in pre-Archaic Chinese can appear in three positions: preceding the subject, between the subject and the verb or postverbally (after the object when present) (cf. §3.1-§3.3. below). Note here that it is not sufficient to correlate the position of PPs *per se* with VO vs. OV word order (‘PP V’ with OV and ‘V PP’ with VO, cf. Dryer 2003:48-49). The argumental vs. non argumental status of the PPs needs to be taken into account as illustrated in (16). The argument PP *yú shāng* ‘in(to) Shang’ subcategorized for by the verb *rù* ‘enter’ must occupy the postverbal position, whereas the adjunct PP *yú qī yuè* ‘in the seventh month’ precedes the verb.

- (16) 王于七月入于商 (Heji 7780 r.)  
 wáng [vP [PP yú qī-yuè] [vP rù [PP yú shāng]]]  
 king in seven-month enter in Shang  
 ‘The king in the seventh month will enter the Shang city.’

Non-phrasal adverbs such as *yì* ‘also’, *yǐn* ‘indeed’ are confined to the preverbal position below the subject and excluded from postverbal position:

- (17) 五月癸巳雨乙巳亦雨 (Heji 20943)  
 [wǔ yuè guǐsì] yǔ yǐsì yì [vP yǔ]  
 five month *guisi* rain *yisi* also rain  
 ‘On the day *guisi* of the fifth month, it rained; on the day *yisi*, it also rained.’
- (18) 出伐于黃尹亦出于蔑 (Heji 00970)  
 yòu fá [PP yú Huángyǐn] yì [vP yòu [PP yú Miè]]  
 offer victim to Huangyin also offer to Mie  
 ‘We will offer victims (as sacrifice) to Huanyin, and also to Mie.’
- (19) 壬辰允不雨風 (Heji 12921 v.)  
 rénchén yǔn [NegP bù [vP yǔ]] fēng  
*renchen* indeed NEG rain blow  
 ‘On the Renchen day, indeed it did not rain, but the wind blew.’

This property is consistent with VO languages, and equally holds for English and Modern Mandarin (where in general the verb does not raise to T°).

### 3.1 S V (O) [adjunct PP/NP]

Let us next examine sentences with adjunct phrases in postverbal position. This is a feature in which pre-Archaic Chinese patterns more strongly with typical head-initial languages than modern Mandarin, since in modern Mandarin adjunct phrases must precede the verb. Accordingly, the equivalents of (20)-(24) in Modern Mandarin would be unacceptable.

- (20) 乎多犬网鹿于麓 (Heji 10976 r.)  
 hū duō quǎn [vP wǎng lù [PP yú nóng]]  
 order numerous dog.officer net deer at Nong  
 ‘Call upon the many dog-officers to net deer at Nong.’
- (21) 乞令吳以多馬亞省在南 (Heji 564 r.)  
 qì ling wú yǐ duō mǎyǎ [vP xǐng [PP zài nán]]  
 Qi order Wu lead numerous military.officer inspect at south  
 ‘Officer Qi will order Wu to lead the numerous military officers to carry out an inspection in the south.’
- (22) 其品祠于王出 (Heji 23713)  
 qí [vP pǐn cí [PP yú [TP wáng chū]]]  
 FUT *pin*.sacrifice *ci*.sacrifice at king go.out  
 ‘One will perform a *pin* and a *ci* sacrifice when the king goes out.’

Both adjunct PPs headed by *yú* and *zài* can occur to the right of the verb (and object, when present). (21) is noteworthy insofar as it neatly illustrates pervasive head-complement order, where each embedding verb takes its propositional complement to its right. (23)-(25) illustrate temporal adjunct NPs in postverbal position:

- (23) 王入今月 (Heji 20038)  
 wáng [<sub>VP</sub> rù [<sub>NP</sub> jīn yuè]]  
 king enter present month  
 ‘The king will enter (the city) this month.’
- (24) a. 其雨丁 (Heji 33943)  
 qí [<sub>VP</sub> yǔ [<sub>NP</sub> dīng]]  
 FUT rain *dīng*  
 ‘It will rain on the day Ding.’  
 b. 允雨丁 (Heji 33943)  
 yǔn [<sub>VP</sub> yǔ [<sub>NP</sub> dīng]]  
 indeed rain *dīng*  
 ‘Indeed, it rained on the day Ding.’
- (25) 出于河來辛酉 (Tun 1119)  
 yòu yú hé [lái xīn-yǒu]  
 present to He next *xinyou*.day  
 ‘[We will] present a sacrifice to the divinity He on the next *xinyou* day.’

### 3.2 S [adjunct PP/NP] V (O)

In contrast to the postverbal position where only one adjunct is permitted, multiple adjuncts are attested in the preverbal position to the right of the subject:

- (26) 王在十二月在襄卜 (Heji 24237)  
 wáng [[<sub>PP</sub> zài shí’èr yuè] [[<sub>PP</sub> zài xiāng] [<sub>VP</sub> bǔ]]]  
 king at 12 month at Xiang divine  
 ‘The king in the twelfth month at the place Xiang made the divination.’

As illustrated in (27)-(28), NP and PP adjuncts show the same distribution:

- (27) 王今丁巳出 (Heji 07942)  
 wáng [<sub>NP</sub> jīn dīngsì] chū  
 king actual *dingsi* go.out  
 ‘The king on this *dingsi* day goes out.’
- (28) 王自余入 (Heji 3458)  
 wáng [<sub>PP</sub> zì yú] rù  
 king from Yu enter  
 ‘The king will enter from Yu.’



### 3.3 [Adjunct PP/NP] S V (O)

Finally, adjunct phrases can also occupy the sentence-initial position to the left of the subject:

- (29) 于辛巳王圍召方 (Heji 33023)  
 [PP yú xīnsì] wáng wéi shào fāng  
 at *xīnsi* king surround Shao tribe  
 ‘On the *xīnsi* day, the king will surround the Shao tribe.’
- (30) 今六月王入于商 (Heji 7775)  
 [NP jīn liù yuè] wáng rù yú shāng  
 actual six month king enter in Shang  
 ‘This sixth month, the king will enter the Shang city.’
- (31) 在 𤝵 王其先邁捍 (Ying 593)  
 [PP zài nǚ] wáng qí xiān gòu hàn  
 at Nū king FUT advance meet opposition  
 ‘At Nū, the king will advance and meet an armed opposition.’

### 3.4 Focalization of adjuncts

The structure for the focalization of adjuncts is the same as that for arguments, i.e. it involves a cleft structure with a matrix copular predicate selecting a complement, whose specifier hosts the focalized adjunct.

- (32) 王勿佳今日往 (Heji 07351)  
 wáng [NegP wù [vP wéi [[NP jīn rì] [vP wǎng]]]]  
 king NEG be actual day go  
 ‘It must not be today that the king will go.’
- (33) 唯于辛巳其雨 (Heji 20912)  
 [TP [vP wéi [[PP yú xīnsì] [vP qí yǔ]]]]  
 be at *xīnsi* FUT rain  
 ‘It is on the day *xīnsi* that it will rain.’

In surface order terms, a focalized adjunct again is postverbal, i.e. it follows the copula. It cannot be confused with an “ordinary” preverbal adjunct (as illustrated in §3.2), given the obligatory presence of the copula when clefting adjuncts.<sup>3</sup>

<sup>3</sup> In contrast to adjunct PPs, argument PPs can be focalized without an overt copula (cf. (ii)). *Yòu*

### 3.5 Pre- and postverbal distribution of adjunct phrases in Classical Chinese

The possibility of adjunct phrases in three positions (to the left or the right of the subject as well as following the verb) naturally raises the question whether there are any syntactic, semantic or pragmatic constraints governing the distribution of these adjunct phrases. While this problem has not been discussed in the literature on pre-Archaic Chinese, there have been studies devoted to possible semantic motivations governing the distribution of adjunct PPs in later stages such as Classical Chinese. Let us therefore briefly look at Classical Chinese and see whether we can gain any insight from it for the situation in pre-Archaic Chinese.

As can be seen in the following example from *Mengzi*, adjunct PPs in Classical Chinese can occur both in the pre- and postverbal position:

- (34) ... 故以羊易之 (Mengzi, Liang hui wang, 4<sup>th</sup>-3<sup>rd</sup> c. BC)

... gù [PP yǐ yáng] yì zhī  
therefore with sheep replace 3SG

‘... therefore [I] replace it [i.e. the ox] with a sheep.’

- (35) 我非愛其財而易之以羊也。 (ibid.)

wǒ fēi ài qí cái ér yì zhī [PP yǐ yáng] yě  
1SG NEG cherish 3SG value CONJ replace 3SG with sheep PART

‘It is not that I attach a great importance to its value [i.e. the value of the ox] and therefore replaced it with a sheep.’

There seems to exist no consensus about possible semantico-pragmatic differences between the preverbal and the postverbal positions for adjunct PPs. While Lu Guoyao (1982) claims that the PP *yǐ yáng* carries emphasis in both positions, Liu Jingnong

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*sui* ‘present an immolation’ constitutes the presupposition in (ii), and *yú Fùdīng* ‘to Fuding’ the focus, thus contrasting with *yú zǔyǐ* ‘to Zuyi’ in the first prediction (i) (displaying VO order):

- (i) 王侑歲于祖乙 (Heji 32113)

wáng yòu suì [PP yú zǔyǐ]  
king present immolation to Zuyi

‘The king will present an immolation sacrifice to Zuyi.’

- (ii) 于父丁侑歲 (ibid.)

[PP yú fùdīng] yòu suì  
to Fuding present immolation

‘It is to Fuding that [the king] will present an immolation.’

This corroborates the necessity to distinguish between argument PPs and adjunct PPs.

(1998) suggests that in ‘[yǐ NP] V O’ the VP is emphasized, whereas in ‘V O [yǐ NP]’ the PP is emphasized.

Concentrating on the syntactic aspect of this adjunct distribution, Huang (2006) proposes to derive postverbal adjunct phrases in Classical Chinese via VP fronting over the uniformly preverbal adjunct phrases to a non-specified landing site XP above vP. (This same VP fronting mechanism must be optional, since as we have seen adjunct phrases may surface in preverbal position in Classical Chinese).

Let us briefly examine how Huang’s suggestion can account for the following related facts.

First, non-branching adverbs such as *yì* ‘already’, *yǔn* ‘indeed’ were confined to the preverbal position below the subject from pre-Archaic Chinese (cf. (36)) through to Classical Chinese,

- (36) 允雨丁 (Heji 33943) (=24b)  
yǔn [vP yǔ [dīng]]  
indeed rain ding.day  
‘Indeed, it rained on the day Ding.’

Second, in pre-Archaic Chinese, preverbal and postverbal adjunct phrases could co-occur in the same sentence:

- (37) 其衣，翌日其征于室 (Heji 30373)  
qí yī [yì rì] qí yán zūn [yú shì]  
FUT sacrifice next day FUT continue offer at temple  
‘After having performed a *yì* sacrifice, the next day one will continue to make offerings in the temple hall.’
- (38) 昃允雨自西 (Heji 20965)  
[zè] yǔn yǔ [zì xī]  
evening effectively rain from west  
‘In the evening effectively it rained from the west.’
- (39) 昃亦出虹自北飲于河 (Heji 10405 v.)  
[zè] [vP yì [vP yǒu chū hóng [PP zì běi]] [vP yǔn [PP yú hé]]  
evening also have come.out rainbow from north drink in river  
‘In the evening there was also a rainbow coming out from the north and drinking in the river.’

On a VP fronting analysis, the most obvious way to derive the correct linear sequence in (36) is to position non-branching adverbs such as *yǔn* ‘indeed’ in a

projection above  $\nu\text{P}$ , perhaps as heads, along the lines of Cinque (1999). VP then fronts around the phrasal adverb (here *ding* ‘Ding day’) but adjoins below the non-branching adverb.

(37)-(39) might eventually be accommodated by generating the first adjunct phrase in a higher projection above  $\nu\text{P}$  (e.g. AuxP in (37)) or in a position outside TP ((38)-(39)) and by fronting the VP over the unique  $\nu\text{P}$  internal adjunct phrase, thus obtaining one preverbal and one postverbal adjunct phrase.

The problem posed by the existence of multiple adjuncts in preverbal position (cf. (26)) and the concomitant lack of multiple adjuncts in postverbal position, however, remains, Huang’s proposal predicting a strictly symmetric distribution for both positions. Importantly, this state of affairs did not only hold in pre-Archaic Chinese, but multiple adjuncts to the right of the VP remained impossible in the subsequent stages where adjuncts could still occur in postverbal position (until 2<sup>nd</sup> c. AD).

Accordingly, we suggest the Shang and Classical Chinese facts can be handled by allowing the verb to select exactly one VP shell (cf. Larson 1988) in these periods of Chinese. This results in the following structure for sentences such as (37)-(39):

(40) AdvP [ $\nu\text{P}$  V [ $\nu\text{P}$  t<sub>V</sub> AdvP]]

### 3.6 Intermediate summary

In pre-Archaic Chinese, adjunct phrases can appear in three positions, to the left or the right of the subject and postverbally (i.e. after the object when present). While the constraints governing the distribution of adjuncts remain to be elucidated, it is evident that preverbal adjunct position cannot be likened to focus, since focalization of adjuncts requires a cleft structure with an overt matrix copular predicate (cf. §3.4 above).

The fact that only ‘V O adjunct’ is attested, to the exclusion of ‘V adjunct O’, argues against a V-raising analysis as in French, where a sentence such as (41) is derived by raising the verb to the functional category Infl/Tense, the adverb *souvent* ‘often’ taken to indicate the left margin of  $\nu\text{P}$ .

(41) [<sub>IP/TP</sub> Jean [<sub>Infl/Tense</sub> embrasse [ <sub>$\nu\text{P}$</sub>  souvent [ <sub>$\nu\text{P}$</sub>  t<sub>embrasse</sub> Marie]  
           Jean                  kiss                  often                  Marie  
           ‘John often kisses Marie.’

Furthermore, while multiple adjuncts in preverbal position are attested, no such data can be observed for the postverbal position, i.e. ‘[V O] adjunct adjunct’ is excluded. This fact cannot be captured by Huang’s (2006) VP fronting analysis. Importantly,

multiple adjuncts to the right of the VP remained impossible in the subsequent stages where adjuncts could still occur in postverbal position (until 2<sup>nd</sup> c. AD).

All these observations lead us to adopt a VP-shell structure à la Larson (1988) for pre-Archaic Chinese, where the postverbal adjunct is a complement of the verb and thus within the VP: [<sub>VP</sub> V [<sub>VP</sub> O [<sub>V'</sub> t<sub>V</sub> adjunct XP]]]. The possibility of exactly one branching adjunct to the right of the verb indicates that pre-Archaic Chinese allowed selection of just one such shell. The change resulting in the disappearance of postverbal branching adjuncts can then be formulated as loss of the VP shell structure.

#### 4. VO word order in Modern Mandarin: Ban against adjuncts in postverbal position

A small sample of data suffices to invalidate Li & Thompson's (1974) claim that Modern Mandarin is in the process of changing into an SOV language, a process allegedly initiated more than two thousand years ago. (For studies arguing against the alleged OV status of Modern Mandarin, cf. *inter alia* Light 1979, Huang 1978, Mulder & Sybesma 1992, Whitman & Paul 2005).

Only arguments subcategorized for by the verb and “quasi” arguments depending on the verb's aktionsart, i.e. quantifier phrases indicating duration or frequency (cf. (45)-(46)) are admitted in postverbal position (cf. Huang 1982, Paul 1988).

- (42) 她打掃房子。  
 tā dǎsǎo fángzi  
 3SG sweep room  
 ‘She’s cleaning the room.’

Accordingly, in the case of double object verbs, both the direct object and the indirect object follow the verb:

- (43) 他送了孩子很多錢。  
 tā sòng-le [<sub>NP</sub> háizi] [<sub>NP</sub> hěn duō qián]  
 3SG offer-PERF child very much money  
 ‘He gave the child a lot of money (as a present).’
- (44) 我賣了一輛汽車給他。  
 wǒ mài-le [<sub>NP</sub> yí-liàng qìchē] [<sub>PP</sub> gěi tā]  
 1SG sell-PERF 1-CL car to 3SG  
 ‘I sold him a car.’

- (45) 他等了半個小時。  
tā děng-le [QP bàn-ge xiǎoshí]  
3SG wait -PERF half-CL hour  
'He waited for half an hour.'
- (46) 他已經來了五次了。  
tā yǐjīng lái-le [QP wǔ-cì] le  
3SG already come-PERF 5-time PART  
'He has already come five times.'

By contrast, adjuncts (phrasal and non-phrasal) are totally excluded from the postverbal position (unlike in English) and have to precede the verb.

- (47) 他也/每天/常常來 (\*也/\*每天/\*常常)。  
tā yě / měi-tiān / chángcháng lái (\*yě /\*měi-tiān /\*chángcháng)  
3SG also / every-day / often come also/ every-day / often  
'He also comes every day/often.'
- (48) (在家裡/白天) 他 (在家裡/白天) 休息 (\*在家裡/\*白天)。  
(zài jiālǐ / báitiān) tā (zài jiālǐ / báitiān) xiūxi (\*zài jiālǐ /\*báitiān)  
at home / daytime he at home / daytime rest at home / daytime  
'(At home/during daytime) he rests (at home/during daytime).'
- (49) 我給他當翻譯 (\*給他)。  
wǒ gěi tā dāng fānyì (\*gěi tā)  
1SG for 3SG act interpreter for 3SG  
'I serve as an interpreter for him.'

The ban against adjuncts in postverbal position illustrated in the data from Modern Mandarin (and observable from approximately the 3<sup>rd</sup> c. AD onwards) indicates major changes in the format of the vP, against the backdrop of constant VO word order. Consequently, more than the simple loss of a feature (optionally) triggering VP fronting over adjuncts (cf. Huang 2006) must be involved here. Instead, it is rather the loss of the VP shell structure as reflected in the impossibility for the verb to merge with a non-argument which is one of the factors at stake.

## 5. Conclusion

Using the issue of word order change as an illustration, we have demonstrated that in order to obtain meaningful results, the same analytical tools must be applied in

synchronic and diachronic studies alike.

Implementing this methodological principle, we have shown in detail that the changes observed in Chinese did not concern basic word order, but the distribution of adjunct phrases. These differences in the positional constraints on adjuncts in turn reflect a major change within the *vP*. While in pre-Archaic and Archaic Chinese (up to the 2<sup>nd</sup> c. AD), an adjunct could be complement of the verb (in the spirit of Larson 1988), in Modern Mandarin, adjuncts are precluded from the postverbal position and must precede the verb. Accordingly, only (quasi) arguments can be merged with the verb in Modern Mandarin.<sup>4</sup> We have suggested to capture this change by the loss of the VP shell structure.

The incorrect assumptions about major word order changes in Chinese à la Li & Thompson (1974), which are still influential today (cf. a.o. Newmeyer 1998:242) are partly due to their not going back to the earliest available data. However, it is in the first place the concept of change as a panchronic, pangenerational event which leads to this faulty hypothesis, as is clearly illustrated by Li & Thompson's (1974:206) statement that "The shift [to SOV; DPW] is obviously incomplete, since Modern Mandarin Chinese still permits SVO word order in certain constructions". Only within this kind of conception is it possible to present individual changes as mere incremental steps of a "macro" change (cf. Hale 1998, 2007 for detailed discussion of these pervasive misconceptions).

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<sup>4</sup> Bennett (1981) and Jepson (1991) also noted changes resulting in a "reduction" of postverbal material; however, they did not realize that this was due to the exclusion of adjuncts in postverbal position.

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