

Three Sensitive Positions and Chinese Complex Sentences: A Comparative Perspective*

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Abstract

The positioning of sentential connectives in Chinese complex sentences is more flexible than their counterparts in English. Sentential connectives in Chinese can be placed in three sensitive positions: clause-initial, predicate-initial, and clause-final positions. Due to the co-existence of prepositions and postpositions in the language, sentential connectives can be placed in both clause-initial and -final positions in Chinese. It is also highly remarkable that sentential connectives can be positioned in the predicate-initial position, which is attributed in this paper to a consequence of the nature of sentence head in the language. Double-subject construction and verb-copying construction are considered as 'special' sentence patterns in Chinese. It is argued in this paper that they are partially due also to the nature of sentence head, i.e., the recursiveness of IP. Those special sentence patterns, together with the unique distribution of sentential connectives in those sentence patterns, are simply epiphenomena, which don't have to be specified in the core system of grammar, but can be derived from the particular nature of sentence head in the Chinese-type languages in interaction with some cross-linguistically invariant principles of UG, which in turn has resulted from the setting of sentence head 'I' parameter.

Key words

Sentential connectives, three sensitive positions, predicate-initial position, double-subject construction, verb-copying construction, parameter setting

* Research for this article was supported by a China National Foundation in Social Sciences grant 'Three Types of Syntactic Operation in Three Sensitive Positions in Chinese' (Project#06BYY045). Comments and suggestions made by editors and reviewers of the Journal of Chinese Language and Computing are also gratefully acknowledged.

1. Introduction

In Chinese there are so many grammatical elements which can link two clauses in complex sentences, including conjunctions, adverbs, particles, and some phrasal words, here we call them as connectives. As for the positioning of sentential connectives in Chinese complex sentence, many studies have discussed it from different aspects. Lu (1983) discussed the positioning of sentential connectives in Chinese main and subordinate complex sentence. In modern Chinese, the subordinate clause is always placed before the main clause. No matter whether the subjects in two clauses are the same or not, most sentential connectives in the subordinate clause can be freely positioned before or after the subject, only *sui* 'although', *ji* 'as well as', *renping* 'no matter' are exceptions, while sentential connectives in main clause are basically positioned before the subject. Liu (2003) divided sentential connectives into pre-positioned sentential connectives and post-positioned sentential connectives. The pre-positioned sentential connectives are placed in initial position of a clause, then the clause order pattern is formed as 'pre-positioned sentential connectives + clause', while the post-positioned sentential connectives are placed in final position of a clause, then the clause order pattern is formed as 'clause + post-positioned sentential connectives'. There exists a highly harmonic order relationship between pre/postpositions and pre/post-positioned sentential connectives. With Dik's order principle for relators, he further explains the positioning of sentential connectives and the use of circum-connectives in Chinese complex sentence. Cao (2004) analyzed the distribution of sentential connectives with the rule of topic-raising. He argues that with the applying of topic-raising rule, the sentential connectives can be placed in the clause-initial position, or after one or several topics in a clause. Xu (2001) proposed that clause-initial position, predicate-initial position and clause-final position are three sensitive positions, in which some connectives relevant to the expression of the sentential function can be placed.

2. Positioning of sentential connectives in complex sentence between Chinese and English

2.1 Positioning of sentential connectives in Chinese complex sentence

The sentential connectives can be divided into connectives used in the coordinate complex sentence and those used in the main and subordinate complex sentence. In the former clause¹ of coordinate complex sentence, when the subjects in two clauses are the same, then the sentential connective will be placed after the subject, otherwise it will be placed before the subject, as illustrated in the examples below.

¹ We will use 'former clause' and 'latter clause' refer to the two clauses in complex sentences, just for the convenience of our analysis. In Chinese main and subordinate complex sentence, the subordinate clause is always placed before the main clause, so the 'former clause' refers to subordinate clause, While in English, the main clause is placed before the subordinate, so 'former clause' refers to the main clause. We will give special explanation if there is any change.

- (1) a. Ta budan congming, erqie hen qinfen.
he not only clever but also very hardworking
'He is not only clever, but also hardworking.'
b. Budan wo jiejie bu xihuan ta, wo didi ye bu xihuan ta.
not only my sister not like him my brother also not like him
'Not only my sister but also my brother doesn't like him.'

The subjects in two clauses are the same, then the sentential connective *budan* 'not only' is positioned after the subject *ta* 'he', as shown in (1a). While in (1b), the subjects in two clauses are different, then *budan* 'not only' is positioned before the subject *wo jiejie* 'my sister'.

However, in the former clause of the main and subordinate complex sentence, the sentential connectives can be freely placed before or after the subject, regardless of whether the subjects in two clauses are the same or not, which can be well illustrated by the following examples.

- (2) a. Jishi women qude-le hen da de chengji, ye buneng jiao'ao ziman.
Ever if we make-Asp very great DE achievements also can't arrogant complacent
'Ever if we made great achievements, we couldn't be arrogant and complacent.'
b. Women jishi qude-le hen da de chengji, ye buneng jiao'ao ziman.
we even if make-Asp very great DE achievements also can't arrogant complacent
'Even if we made great achievements, we couldn't be arrogant and complacent.'
(3) a. Suiran women chenggong-le, danshi laoshi que meiyou biaoyang women.
although we succeed-Asp but teacher yet not praise us
'Although we succeeded, the teacher didn't praise us.'
b. Women suiran chenggong-le, danshi laoshi que meiyou biaoyang women.
we although succeed-Asp but teacher yet not praise us
'Although we succeeded, the teacher didn't praise us.'

The subjects in the former and latter clause are the same, as illustrated in example (2a) and (2b), while the subjects in two clauses are respectively *women* 'we' and *laoshi* 'teacher', as illustrated in example (3a) and (3b). However, the sentential connectives *jishi* 'even if' and *suiran* 'although' in the examples mentioned above can be placed either in the position before the subject, which is also called clause-initial position, or in the position after the subject.

There are also some syntactic elements in Chinese main and subordinate clause acting as the sentential connectives, which are always placed in the final position of the former clause, just like the following examples from Liu (2003).

- (4) Ni qu mai dehua, gei wo ye dai yidian.
you go buy if, for me also bring a little
'If you buy, please bring me a little.'
(5) Ta jinlai shi, wo yijing zuowan-le.

he come when, I already finish-Asp
 ‘When he came, I had already finished it.’

The words which act as the sentential connectives in the above examples are *dehua* ‘if’ and *shi* ‘when’ respectively, and both of them are placed in the final position of the former clause. They are argued as particles in Jiang’s (2001) work, while in Liu’s work, all of these sentential connectives in the final position are regarded as post-positioned sentential connectives.

The sentential connectives in former clause are always conjunctions, such as *budan* ‘not only’, *jishi* ‘even if’, *suiran* ‘although’ in the examples above. However the sentential connectives in the latter clause can be either conjunctions or adverbial connectives, of which the conjunctions must be positioned before the subject, as is shown in (3a) and (3b), *danshi* ‘but’ must be positioned before the subject *laoshi* ‘teacher’, and the adverbial connectives must be positioned after the subject, as is also shown in (3a) and (3b), *que* ‘yet’ must be positioned after the subject *laoshi* ‘teacher’.

2.2 Positioning of sentential connectives in English complex sentence

In English coordinate complex sentence, some connectives, such as ‘and’, ‘but’, ‘or’, ‘however’, ‘nevertheless’, ‘while’, etc., are always placed before the subject in the latter clause, as well illustrated in the following examples.

- (6) He knows it is inconvenient, but he wants to go anyway.
- (7) Make up your mind, or you will miss the chance.
- (8) Cold-blooded animals are really with variable body temperature, while warm-blooded animals have a constant temperature.

In English main and subordinate complex sentence, the main clause is always placed before the subordinate clause, and the sentential connectives must be positioned before the subject in the latter clause. Sometimes, the subordinate clause is placed before the main clause. Therefore, besides the sentential connectives positioned before the subject in the former subordinate clause, additional sentential connective is always placed in the initial position of the latter main clause.

- (9) You will have a good result in the final examination if you study hard enough.
- (10) He wouldn’t listen although I told him many times.
- (11) If you study hard enough, then you will have a good result.
- (12) Although I told him many times, yet he wouldn’t listen.

The sentential connectives of the latter clause in example (9) and (10) are respectively ‘if’ and ‘although’. While in example (11) and (12), the subordinate clause is fronted, thus besides the sentential connectives ‘if’ and ‘although’ in the former subordinate clause, additional sentential connectives ‘then’ and ‘yet’ are placed respectively in the initial position of the latter main clause, of which ‘then’ is an adverbial connective, and ‘yet’ is a conjunction.

Therefore, it can be observed that the connectives in Chinese can be positioned before/ after the subject, and some even can be placed in the final position, while in English all kinds of connectives must be positioned before the subject, as can be shown in great detail in the following table.

The word class and possible positions of sentential connectives²

	Chinese	English
The former clause	conjunction: before/after the subject, final position	conjunction: before the subject
The latter clause	conjunction: before the subject adverbial connective: after the subject	conjunction: before the subject adverbial connective: before the subject

3. Flexible positioning of sentential connectives in two Chinese-specific sentence patterns

3.1 Positioning of sentential connectives in double-subject construction

In English, only VP can be the predicate of a sentence, while in Chinese, the predicate can be VP, AP, NP, and even IP. S-P predicate sentence is Chinese-particular type in which one IP is the predicate of another IP. S-P predicate sentence is assumed to be one typical ‘topic construction’ by Li & Thompson (1976), Xu & Liu (1998), Cao (2004) and etc., who treat *yezi* ‘leaf’ as the subject, and *na-ke shu* ‘that tree’ as the topic of the sentence (13) below.

- (13) Na-ke shu yezi da.
that-CL tree leaf big
‘As for that tree, the leaves are big.’

In Xu’s (2001) work, he treats the ‘topic construction’ as ‘double-subject construction’. He proposed that the two NPs in preverbal positions each take an independent Spec/IP position, with the linearly-ordered outer one being in the Spec of the matrix IP, and the inner one in the Spec of an embedded IP. So, ‘topics’ are formally subjects. *Na-ke shu* ‘that tree’ is not the topic, but the big subject of the whole sentence, and *yezi* ‘leaf’ is the small subject. ‘Topic’ itself is not an element with independent syntactic status, but a functional feature carried by subject, which is likely to trigger some grammatical operations in some languages, such as ‘adding topic mark’ and ‘moving the grammatical element with the feature [+Topic]’, etc. In this article the S-P

² This table just gives a general distribution of sentential connectives’ possible positions in Chinese and English complex sentence. Some possible positions can’t always be placed by sentential connectives for this or that kind of reason.

predicate sentence is also taken as double-subject construction. The positioning of sentential connectives is flexible in double-subject construction, as illustrated in the examples below.

- (14) a. Yinwei na-bu dianying ta mei kan-guo, suoyi bu zhidao hao bu hao.
 because that-CL film he not watch-Asp, so not know good not good
 ‘As for that film, he didn’t watch, so he didn’t know whether it was good or not.’
- b. Na-bu dianying yinwei ta mei kan-guo, suoyi bu zhidao hao bu hao.
 that-CL film because he not watch-Asp, so not know good not good
 ‘As for that film, he didn’t watch, so he didn’t know whether it was good or not.’
- c. Na-bu dianying ta yinwei mei kan-guo, suoyi bu zhidao hao bu hao.
 that-CL film he because not watch-Asp, so not know good not good
 ‘As for that film, he didn’t watch, so he didn’t know whether it was good or not.’

In the examples above, the former clauses are double-subject constructions, in which the sentential connectives can be placed before the big subject, as shown in example (14a), or in between the big subject and the small subject, as shown in example (14b), or in the position after the small subject, as shown in example (14c).

3.2 Positioning of sentential connectives in the verb-copying construction

Verb-copying construction consists of two VPs in which the V is the same, displaying the subject-verb-complement₁-verb-complement₂ sequence. The complement₁ of V is an intrinsic participant of the event described by the verb whereas the complement₂ of V describes the result of the event denoted by V (more arguments in the works of Fan (1993), Huang (1996), Li & Shi (1997), and Xiang (1997)). We here should differentiate ‘V-De’ verb-copying construction and non ‘V-De’ verb-copying construction. In the former type, the second VP is ‘V-De’ structure.

Just as the double-subject construction, the flexible positioning of sentential connectives in the verb-copying construction is quite obvious in the following examples.

- (15) a. Suiran ta qi ma qi-de hen lei, keshi que hen gaoping.
 although he ride horse ride-DE very tired, but yet very happy
 ‘He was very happy, although he became tired from riding a horse.’
- b. Ta suiran qi ma qi-de hen lei, keshi que hen gaoping.
 he although ride horse ride-DE very tired, but yet very happy
 ‘He was very happy, although he became tired from riding a horse.’
- c. Ta qi ma suiran qi-de hen lei, heshi que hen gaoping.
 he ride horse although ride-DE very tired, but yet very happy
 ‘He was very happy, although he became tired from riding a horse.’

- d. Ta qi ma qi-de suiran hen lei, heshi que hen gaoping.
he ride horse ride-DE although very tired, but yet very happy
'He was very happy, although he became tired from riding a horse.'
- (16) a. Jinguan ta mai baozhi mai-fan-le, keshi regran meiyou ting-xialai.
even though he sell magazine sell-annoyed-Asp but still not stop
'He didn't stop, even though he became annoyed from selling magazines.'
- b. Ta jinguan mai baozhi mai-fan-le, keshi regran meiyou
ting-xialai.
he even though sell magazine sell-annoyed-Asp, but still not stop
'He didn't stop, even though he became annoyed from selling magazines.'
- c. Ta mai baozhi jinguan mai-fan-le, keshi regran meiyou
ting-xialai.
he sell magazine even though sell-annoyed-Asp, but still not stop
'He didn't stop, even though he became annoyed from selling magazines.'

In both the example (15) and (16), the former clauses are verb-copying constructions. The example (15) is 'V-De' verb-copying construction, in which *suiran* 'although' can be placed before or after the subject *ta* 'he', or in the position after the first VP *qi ma* 'ride a horse', or in the position after 'DE'. While the example (16) is non 'V-De' verb-copying construction, in which *jinguan* 'even though' can be placed in three positions: position before the subject *ta* 'he', position after the subject *ta* 'he', and position after the first VP *mai baozhi* 'sell magazine'.

4. Pre-positioned and post-positioned sentential connectives in Chinese

4.1 Harmonic order relationship between conjunction and adposition

The adposition in Chinese can be used independently before N or NP to form PP. The concept of adposition, which includes preposition, postposition, or even circum-position, here refers to the preposition only. The postposition can be used independently after N or NP to form PP, and circum-position consists of both preposition and postposition, and the N or NP governed is in between them. In Chinese language, there are prepositions, which develop from the predicate verb in the serial VP construction, as well as postpositions which develop from relational noun construction. The commonly used postpositions in Chinese are locality words, which develop from the relational noun, such as *shang* 'up', *xia* 'down', *qian* 'before', *hou* 'after', *nei* 'inside', *wai* 'outside', as explicitly discussed in Liu (2003).

Conjunctions and adpositions being historically related with each other, many conjunctions developed from adpositions. Moreover, both of them belong to relators, so there is a highly harmonic order relationship between conjunction and adposition. Therefore post-positioned sentential connectives always exist in a language with postpositions. In Chinese, both postposition and post-positioned sentential connective exist, which have been neglected for a long period. In the languages with more typical co-existence of preposition and postposition, such as Chinese Wu dialect, the

post-positioned sentential connectives numerous exist.

4.2 Chinese pre/post-positioned sentential connectives

Most Chinese connectives linking two clauses together are pre-positioned sentential connectives, which can be placed in clause-initial position. In modern Chinese, there are few recognized post-positioned sentential connectives, such as *dehua* ‘if’, *shi* ‘when’. As we see, there are several more post-positioned sentential connectives which lead time adverbial clause, they are *zhiqian* ‘before’, *zhihou* ‘after’, *yiqian* ‘before’, *yihou* ‘after’, *yilai* ‘since’, as illustrated in the examples below.

- (17) *Zai xie tuijian xin zhiqian, zuihao zhao yi-ge liaojie ni de you fenliang de tuijianren.* at write recommend letter before had better find a-CL know you DE have famous DE recommendator ‘Before the recommendation letter is written, you’d better find a famous recommendator who knows you well.’
- (18) *Banhao zhuyuan shouxu zhihou, laolao bei songjin-le bingfang.* finish hospital procedure after grandmother BEI take-Asp hospital room ‘After inpatient procedure was finished, grandmother was taken to a hospital room.’
- (19) *Wo zai dacheng 127 lu yiqian, tedi dao xiaotan shang duihuan lingbi.* I take 127 route before specially go to stall on exchange coins ‘Before I took a No.127 bus, I went specially to a stall to exchange for some coins.’
- (20) *Xiaoyan chu ke yihou, you fumu shuangqin weiyang.* baby swallow come out shell after, by parents parents feed ‘After baby swallows come out of shell, they are fed by parents.’

The sentential connectives in the examples above are *zhiqian* ‘before’, *zhihou* ‘after’, *yiqian* ‘before’, *yihou* ‘after’, which are all compound localizers. It was put forward in Liu’s (2001:148) work that as far as the expression of subordinate relationship is concerned, the difference between adposition and conjunction is whether they introduce a noun phrase or a clause. When these localizers follow behind NP, they developed into postpositions, and when they follow behind VP or clause, they developed into post-positioned sentential connectives for introducing time adverbial clauses.

Post-positioned sentential connective *yilai* ‘since’ also developed from postposition, which is used in time adverbial clause as well.

- (21) *Gaige kaifang yilai, zhongguo zhengfu kaizhan-le da guimo de guotu zhengzhi.* reform opening up since, China government launch-Asp large scale DE territory control ‘Since the reform and opening-up policy was employed, Chinese government had launched territorial control on a large scale.’

There exist both prepositions and postpositions in Chinese, thus there also exist

both pre-positioned sentential connectives which can be placed in clause-initial position and post-positioned sentential connectives which can be placed in clause-final position. However, English is a language only with prepositions, without postpositions, without post-positioned sentential connectives, so all the connectives are placed in clause-initial position.

5. Particularity of Chinese sentence head and ‘predicate-initial’ position

5.1 Particularity of Chinese sentence head

Under the framework of generative grammar, the sentence is also assumed to have the head, which is the functional inflection category, always abbreviated as ‘I’, which consists of the features [Tense] and [Agr]. It is assumed in Xu’s (2001, 2003, 2006) work that although there is little morphological inflection for [Tense] and [Agr] in Chinese, the sentence also has head, that is a phonetically null functional category which is called [predicator]. Xu, noting the differences between Chinese and English with respect to ‘I’, makes the claim that ‘I’ in the former only consists of feature [Predicator], while in the latter consists of features [Tense], [Agr], [Predicator]. ‘I’, as a functional category, heads a functional projection IP, plays three important roles of assigning Nominative Case to a subject NP, selecting the complement, and responding to the sentential function. In Chinese, ‘I’ does not have the features [Tense] and [Agr] which must be supported by V, and the only selectional condition that ‘I’ places on its complement is ‘be predicative’. A phrasal category XP can be selected as a complement of ‘I’ if and only if it has the feature [+Predicative], including VP, AP, NP, even IP. While in English, ‘I’ can only select VP but not any other types of phrasal category as its complement, for the [Tense] and [Agr] features of the ‘I’ must be realized on the verb.

The grammatical position filled by ‘I’ is defined as ‘predicate-initial’ position in Xu’s work. In Chinese, ‘predicate-initial’ position is a phonetically null position, thus some grammatical elements, relevant to expressing the sentential function, can come into the position by the grammatical device ‘insertion’. As we see, complex sentence category also belongs to the sentential functional category, therefore it is not difficult for us to explain why sentential connectives in former clause can be placed in the position either before or after the subject, the position after subject being exactly the ‘predicate-initial’ position. As for the positioning of sentential connectives in latter clause, most of them are conjunctions which must be placed in clause-initial position, and can’t come into the ‘predicate-initial’ position by grammatical device ‘insertion’, for Dik’s order principle for relators³ works. However, ‘predicate-initial’ position is not always empty, for some adverbial connectives⁴ can be inserted into it, as illustrated in

³ Dik points out that both conjunctions and adpositions belong to ‘relator’, prone to be positioned in between two elements (more details in Liu 2003), so the connectives in latter clause can only be placed in clause-initial position. Sometimes the main clause is located before the subordinate clause, and the connectives in latter clause can only locate clause-initially as well.

⁴ In modern Chinese, there are several commonly used adverbial connectives which are located in ‘predicate-initial’ position. Such as *hai* ‘in addition’, *que* ‘yet’, *ye* ‘also’, *dou* ‘even’, *cai* ‘indicate sth. happens only under certain conditions’, etc.

the example below.

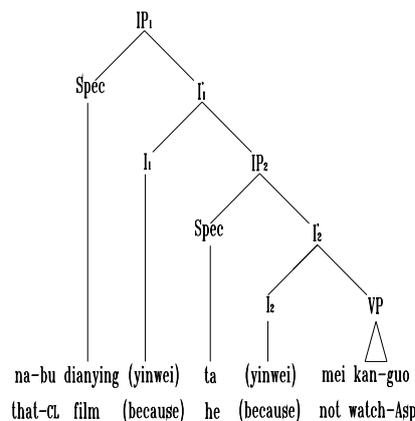
- (22) Zhiyao ni nuli, zhe shi jiu neng ban-cheng.
 if you work hard this job then can do-Resultative
 ‘If you work hard, then this job can be done.’

The ‘predicate-initial’ position in the latter clause is filled by the adverbial connective *jiu* ‘then’.

While in English, ‘predicate-initial’ position is always filled by inflectional affixes or auxiliaries, thus sentential connectives can’t be placed in this position.

5.2 ‘Predicate-initial’ position and double-subject construction

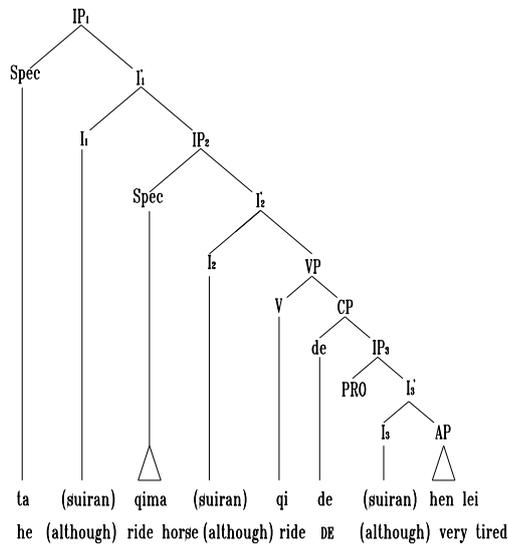
As seen from the foregoing discussion, a phrasal category can be the complement of ‘I’ only if it has the feature [+Predicative], thus an IP can itself be a complement of a higher ‘I’. Double-subject construction is the result of the recursion of IP, which produces multi-level ‘I’ and ‘predicate-initial’ positions. In the former clause of example (14) *na-bu dianying ta mei kan-guo* ‘as for that film, he didn’t watch’, *na-bu dianying* ‘that film’ is the subject of IP₁, and *ta* ‘he’ is the subject of IP₂. Both IP₁ and IP₂ has a head ‘I’, consequently there are two ‘predicate-initial’ positions in the clause. Therefore, the sentential connective *yinwei* ‘because’ can not only be placed in clause-initial position, but also be placed in these two ‘predicate-initial’ positions, as seen in the chart below.



5.3 ‘Predicate-initial’ position and verb-copying construction

In the foregoing discussion, verb-copying construction is divided into ‘V-De’ verb-copying construction and non ‘V-De’ verb-copying construction. Compared with the former, sentential connectives can also be placed after ‘De’ in the latter. As for the nature of the complement of ‘De’, Shi (2003) assumed that it is a clause with

independent expression status. Sybesma & Shen (2006) treated the resultative complement of 'De' as a clause. Huang (1992) and Cheng (2005) analyzed the complement of 'De' as a clause with PRO being its subject, and they treated the first VP in the 'V-De' verb-copying construction as adjunct. We quite agree with Huang and Cheng's assumption about the nature of the complement of 'De', however as we see, both in the 'V-De' verb-copying construction and in the non 'V-De' verb-copying construction, the first VP should be treated as subject in a principled way, but not the adjunct. Verb-copying construction is in fact double-subject construction, in which the grammatical element in the Spec of an embedded IP is not NP, but VP. In Chinese, not only NP can be in the Spec of IP, acting as the subject of a sentence, VP and AP can also be in the Spec of IP (more details in Zhu 1982). In the former clause of example (15) *ta qi ma qi-de hen lei* 'he became tired from riding a horse', *ta* 'he' is the subject of IP₁, while the first VP *qi ma* 'ride horse' is the subject of IP₂. Both IP₁ and IP₂ have a head 'I', and IP₃ introduced by 'De' also has a head 'I', consequently there are three 'predicate-initial' positions in the clause. The sentential connective *suiran* 'although' can not only be placed in clause-initial position, but also be placed in these three 'predicate-initial' positions, as seen in the chart.



Verb-copying construction is treated as topic construction by Xu & Liu (1998), Wang & He (2002), and etc., in which the first VP should be analyzed as the second topic, for the topic mark *a* can be added after the first VP. For instance, *ta qi ma a, qi-de hen lei* 'as for riding a horse, he became tired'. It is just the result brought about by the grammatical operation 'adding topic mark', which is triggered by the subject with feature [+Topic].

6. Conclusion

Through a comparative analysis of sentential connectives' positioning in complex sentence between Chinese and English, it is observed that the positioning of sentential connectives is so flexible that they can be placed in three sensitive positions: the initial position, the predicate-initial position, and the final position. While in English, the sentential connectives can only be placed in the initial position. As we see, the distribution of Chinese sentential connectives in three sensitive positions is caused by different syntactic motivations, and not all sentential connectives can be placed in these three sensitive positions.

Chinese is a language with the co-existence of prepositions and postpositions. There is a highly harmonic order relationship between conjunctions and adpositions, and many post-positioned sentential connectives developed from postpositions, thus in Chinese, there are not only pre-positioned sentential connectives which are placed in the initial position, but also post-positioned sentential connectives which are placed in the final position. While English is a language only with prepositions, there are only pre-positioned sentential connectives which are placed in the initial position.

'I' in Chinese is fundamentally different from that in English, and it only consists of the feature [predicator], which is a phonetically null functional category. Hence the grammatical position filled by it is a phonetically null position, which is defined as 'predicate-initial' position. Some grammatical elements, relevant to expressing the sentential function, can come into the position by the grammatical device 'insertion'. Complex sentence category also belongs to the sentential functional category, thus sentential connectives in Chinese can be placed in the 'predicate-initial' position. Double-subject construction and verb-copying construction are Chinese-special sentence types, which are partially due to the particular nature of Chinese sentence head, i.e., the recursiveness of IP. Those special sentence patterns, together with the unique distribution of sentential connectives in those sentence patterns, are simply epiphenomena, which don't have to be specified in the core system of grammar, but can be derived from the particular nature of sentence head in the Chinese-type languages in interaction with some cross-linguistically invariant principles of UG, which in turn has resulted from the setting of sentence head 'I' parameter.

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