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## Introduction to the Special Issue on Complex Sentences in Chinese\*

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The notion of *complex sentence* is based on the dichotomy between *main clause*, on the one hand, and *subordinate clause* or *adjunct clause*, on the other. *Subordinate clause* is used here mainly as a semantic label chosen to capture its relation of modification with respect to the main clause. Whether the subordinate clause is indeed in a hierarchically lower position with respect to the main clause, as implied by the meaning of *subordinate* when taken as a syntactic term, is often glossed over and in fact is not necessarily the case. *Adjunct clause*, by contrast, started out as a syntactic label in X-bar theory, but quickly became a term of a hybrid syntactic-semantic nature covering different types of *non-main* (non-complement) clauses, irrespective of whether they were actually syntactically adjoined to the main clause or not.

We therefore prefer the more neutral term *adverbial clause* and use the dichotomy 'adverbial clause vs main clause' in order to refer to the component parts of a complex sentence. This is artificial insofar as the complex sentence *qua* matrix clause in fact subsumes the adverbial clause as one of its constituents, as is evident when replacing the adverbial clause in e.g. *If he doesn't come, I'll go on my own* by a simple adverbial NP such as *tomorrow*: [<sub>Matrix Cl</sub> *Tomorrow, I'll go on my own.*]. But this terminological distinction allows us to refer to each clausal domain separately and to divide complex sentences into different subtypes according to the relative order of its component clauses: (i) 'adverbial clause - main clause', (ii) 'main clause - adverbial clause', (iii) 'matrix subject - adverbial clause - main predicate', i.e. the case where the adverbial clause appears below the matrix subject and above the matrix predicate. To determine the hierarchy between *main clause* and *adverbial clause* in these different types as well as their respective internal structure is the main aim of this special issue.

Such an investigation is necessary because the structure of complex sentences in Chinese has hardly been studied within the generative framework.<sup>1</sup> This is surprising insofar as complex sentences served as a crucial testing ground for binding theory in the wake of Huang (1982), in particular the binding construal possibilities for *ziji* 'self' (cf. Huang/Li/Li 2009, ch. 9 for discussion and references), but also with respect to the licensing conditions for *pro* drop (null subjects). The wealth of studies on *ziji* 'self' hardly ever addressed the question of the internal structure and hierarchy of complex sentences, but implicitly took for granted the identity between Chinese and English in this domain. This might partly be due to the fact that for a long time syntactic theory did not provide many structural options for the analysis of complex sentences other than right or left adjunction to the main clause. However, even within the adjunction scenario more fine-grained approaches to complex sentences existed.

For example, Haiman (1978) back in the seventies argued for an analysis of conditional clauses in English and other languages as topics from a semantic and morpho-syntactic point of view. Similarly, when Greenberg's (1963: 111) universal 14 ("In conditional statements, the conditional clause precedes the conclusion as the normal order in all languages.") is transposed into structural terms, the conditional clause occupies a position higher than the consequent clause, as demonstrated by Whitman (2008: 235):

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<sup>1</sup> Among the three available monographs on complex sentences, i.e. Eifring (1993, 1995), Xing Fuyi (2001) and Lu Peng (2003, 2008), only the latter briefly examines possible differences between adverbial clauses in terms of Haegeman's (2002) dichotomy *central* vs *peripheral* clauses.

(1) [s' If conditionals are specifiers of S' [s they precede the consequent]]

This can be directly applied to Chinese where conditional clauses can be analyzed as clausal topics and as such precede the consequent as well. Translating the X-bar schema with an S-adjunction of the clausal topic in (1) into a split CP *à la* Rizzi (1997), this results in a configuration where the conditional clause is located in the specifier position of Topic Phrase, whose head can be realized optionally by topic markers such as *ne* (cf. Gasde & Paul 1996):

(2) [TopP [cond.cl. Rúguǒ tā bù lái ] [Top' [Top° ne] [TP wǒ jiù zìjǐ qù ]]]  
 if 3SG NEG come TOP 1SG then self go  
 'If he doesn't come, then I'll go on my own.'

Other types of adjunct clauses can likewise be analyzed as clausal topics:

(3) [TopP [inferential.cl. Jìrán tā yǐjīng lái -le ] [Top' [Top° ne]  
 since 3SG already come-PERF TOP  
 [TP wǒmen jiù zhíjiē gēn tā shuō]]].  
 1PL then directly to 3SG say  
 'Since he is already here, we can talk to him directly.'

(4) [TopP [concessive.cl. Suīrán tā hěn piàoliàng] [Top' [Top° ∅]  
 although 3SG very pretty  
 [TP wǒ hái shì bù xǐhuān tā ]].  
 1SG still NEG like 3SG  
 'Although she is pretty, I still don't like her.'

(5) [TopP [causal.cl. Yīnwèi tā méi yǒu shíjiān] [Top' [Top° ∅]  
 because 3SG NEG have time  
 [TP wǒ zhǐ néng zìjǐ qù]].  
 1SG only can self go  
 'Because he has no time, I cannot help but going on my own.'

While the topic position occupied by these different types of adjunct clauses is fairly obvious, the categorial identity of the so-called “conjunctions” (*rúguǒ* ‘if’, *jìrán* ‘since’, *suīrán* ‘although’, *yīnwèi* ‘because’) is not clear. In addition, “conjunctions” probably do not form a homogeneous class, but might involve adverbs, prepositions, postpositions and complementizers.

The potential analysis of conjunctions as adverbs goes back to Chao Yuen Ren (1968: 113, §2.12.6; 790, §8.4). It is based on the observation that with respect to their position, conjunctions pattern with adverbs and can either precede the subject or occur in the canonical adverb position, i.e. below the subject and above the verb. More precisely, as observed by Lu Peng (2003, 2008), conjunctions such as *rúguǒ* ‘if’, *jìrán* ‘since’, *suīrán* ‘although’ show the same distribution as *sentential* adverbs such as *xiǎnrán* ‘naturally’, *qíshí* ‘in fact’, *xìnghǎo* ‘fortunately’ etc. (also cf. Paul (2016) for further discussion and references):

(6) [TopP [cond.cl. Tā rúguǒ bù lái ] [Top' [Top° ne] [TP wǒ jiù zìjǐ qù ]]]  
 3SG if NEG come TOP 1SG then self go  
 'If he doesn't come, then I'll go on my own.'

- (7) [TopP [concessive.cl. Tā suīrán hěn piàoliàng] [Top' [Top° Ø]  
 3SG although very pretty

[TP wǒ hái shì bù xī huān tā ]].  
 1SG still NEG like 3SG  
 ‘Although she is pretty, I still don’t like her.’

- (8) {Xiànrán /Qíshí} tā {xiànrán/qíshí} huì shuō fǎwén  
 naturally/ in.fact 3SG naturally/in.fact can speak French  
 ‘Naturally/In fact, he can speak French.’

At first sight, the same observation also seems to hold for *yīnwèi* ‘because’, which can either precede (cf. (5) above) or follow the subject:

- (9) [TopP [causal cl. Tā yīnwèi méi you shíjiān] [Top' [Top° Ø]  
 3SG because NEG have time  
 [TP míngtiān de huìyì jiù bèi qǔxiāo-le ]].  
 tomorrow SUB meeting then PASS cancel- PERF  
 ‘Because he has no time, tomorrow’s meeting was canceled.’

However, this is somewhat puzzling, given the existence of the preposition *yīnwèi* ‘because of’; it would appear more plausible to analyze *yīnwèi* in example (5) as a head as well, i.e. either as a preposition or a complementizer, not as an adverb. If it is assigned the status of complementizer, then an additional projection hosting *tā* above the CP headed by *yīnwèi* ‘because’ must be postulated for (9). (10) provides an analysis along these lines where *tā* ‘s/he’ in TopP<sub>2</sub> is co-indexed with the empty pronoun present in the clausal complement of *yīnwèi* ‘because’. TopP<sub>2</sub> in turn occupies the specifier position of the matrix TopP<sub>1</sub>:

- (10) [TopP<sub>1</sub> [TopP<sub>2</sub> Tā<sub>i</sub> [causalCP yīnwèi [TP *pro*<sub>i</sub> méi you shíjiān] ] ] [Top<sub>1</sub>' [Top<sub>1</sub>° Ø]  
 3SG because NEG have time  
 [TP míngtiān de huìyì jiù bèi qǔxiāo-le]].  
 tomorrow SUB meeting then PASS cancel- PERF  
 ‘Because he has no time, tomorrow’s meeting was canceled.’

In principle, this opens the possibility of analyzing *rúguǒ* ‘if’, *jìrán* ‘since’, *suīrán* ‘although’ etc. as complementizers as well and to derive their position to the right of *tā* ‘s/he’ in (6) - (8) above not by their sentential adverb status (allowing for two positions), but by topicalization of the subject *tā* ‘s/he’.<sup>2</sup> To decide between these two competing analyses and their ramifications is one of the central research questions to be addressed in this special issue. Importantly, the existence of the two analytical options illustrated in (9) - (10) crucially hinges on the existence of null subjects in Chinese. The unavailability of null subjects in English illustrates one of the major differences between the two languages that make it impossible to simply treat their complex sentences on a par, contrary to what has been implicitly assumed so far.

Let us now leave the issue of the categorial identity of “conjunctions” and return to the syntactic properties of complex sentences themselves. One influential account of adverbial clauses, hence complex sentences, is that by Haegeman (2012), as well as her earlier and subsequent works. She establishes a correlation between the internal syntax of adverbial

<sup>2</sup> We abstract away here from the additional possibility of topicalizing the subject in the adverb scenario as well.

clauses, i.e. the (non) availability of argument fronting, on the one hand, and their degree of “integration” (central vs peripheral) with the main clause, on the other.

(11) \*If these exams you don’t pass, you won’t get the degree. (Haegeman 2012: 156)

(12) If some precautions they did indeed take, many other possible measures they neglected. (Haegeman 2012: 159)

While the *if*-clause in (11) states a condition for the event in the main clause to happen and is therefore classified as a *central adverbial clause* (CAC) by Haegeman, this is not the case for the “peripheral” *if*-clause in (12), which instead expresses a contrast with respect to the proposition in the main clause.

Phenomena such as argument fronting are considered to be typical of main clauses and hence are called *main clause phenomena* (MCP) or *root clause phenomena*. (cf. a.o. Heycock 2006 and Haegeman (2012). Importantly, MCP are not restricted to main clauses, but also exist in a relatively well-defined subset of embedded clauses, among them the clausal complement of bridge verbs and the so-called *peripheral adverbial clauses* (PAC) (cf. Haegeman 2002).

In earlier approaches, the incompatibility of CAC with argument fronting was accounted for by the truncation account (cf. Haegeman 2006) postulating a reduced left periphery for central adverbial clauses, hence incapable of hosting fronted arguments. By contrast, Haegeman (2012) proposes a movement account for the derivation of central adverbial clauses, in combination with selective intervention as discussed in Starke (2001) and Rizzi (2004). More precisely, “temporal and conditional clauses are hidden relatives in which argument fronting is ruled out by intervention” (Haegeman 2012: 285).

This analysis can be straightforwardly applied to Chinese temporal clauses featuring *shíhòu* ‘moment, time when’ which involve a relative clause and where argument fronting is excluded:<sup>3</sup>

(13) Tā dào Běijīng de shíhòu,  
 3SG arrive Beijing SUB moment  
 wūrán jiù yǐjīng hěn yánzhòng le.  
 pollution then already very serious SFP  
 ‘[At the time] When he arrived at Beijing, the pollution had already been very bad.’

By contrast, although conditional clauses will turn out to be (potential) CACs in Chinese as well, they are clearly not hidden relatives; *inter alia* they do not always require the presence of conjunctions such as *rúguǒ* ‘if’ (cf. (2) and (6) above), but can also be “bare”:

(14) [TopP [cond.cl. Tā bù lái ] [Top’ [Top° Ø] [TP wǒ jiù zìjǐ qù ]]]  
 3SG NEG come TOP 1SG then self go  
 ‘If he doesn’t come, then I’ll go on my own.’

This once again highlights the necessity to determine the relevant diagnostics distinguishing CACs from PACs in Chinese, for they do not necessarily coincide with the diagnostics working for English.

In fact, with respect to the CAC vs PAC dichotomy, in addition to the order (i) adverbial clause – main clause’ discussed so far, the two other possible orders mentioned at

<sup>3</sup> This analysis is adopted by Wei & Li (this volume).

the beginning of this introduction must be taken into account as well, i.e. (ii) ‘main clause – adverbial clause’ (cf. (15)), and (iii) the order where the adverbial clause appears below the matrix subject: ‘matrix subject – adverbial clause – matrix predicate (cf. (16)):

(15) Tā dōu zǒu lù shàng bān, chūfēi xià yǔ.  
 3SG all walk road go work unless fall rain  
 ‘He usually walks to work, unless it rains.’

(16) Tā [chūfēi xià yǔ] fǒuzé dōu zǒu lù shàng bān.  
 3SG unless fall rain otherwise all walk road go work  
 ‘He usually walks to work, unless it rains.’

The outline given above of the empirical and analytical issues involved and the problems raised provides us with the background for the research questions addressed in this special issue

The contribution by **Redouane Djamouri** opens the discussion. He examines complex sentences in the oldest attested material, i.e. the Shang inscriptions, dating from the early Archaic Chinese period (EAC: 13<sup>th</sup> c. – 11<sup>th</sup> c. BC), and through the subsequent stages of late Archaic Chinese (LAC: 10<sup>th</sup> c. BC – 2<sup>nd</sup> c. BC). Complex sentences in Archaic Chinese show the order ‘adverbial clause – main clause’, and can be demonstrated to clearly differ from simple sentences with several predicates, despite the lack of conjunctions and correlative adverbs. In EAC, conditional clauses can furthermore be distinguished from temporal clauses based on the type of negation and auxiliaries allowed in each type of adverbial clause. For LAC, Djamouri analyzes in depth the well-known and so far poorly understood exceptional preverbal position available for object pronouns under negation. He provides extensive evidence for the empirical generalization that the preverbal position is possible in root contexts only. In non-root contexts, by contrast, object pronouns follow the negated verb, just like object NPs (given the SVO order in Archaic Chinese). It is thus the root vs non-root dichotomy that provides the key to a long-standing puzzle in the syntax of Archaic Chinese, where so far no satisfactory analysis had been offered for the seemingly erratic distribution of object pronouns in negated sentences.

**Victor Junnan Pan** and **Waltraud Paul** provide a comprehensive overview of the syntax of complex sentences in Mandarin Chinese. Their article focuses on complex sentences involving conditional, causal, concessive, inferential and temporal clauses, because these adverbial clauses all precede the main clause in their default order. The orders ‘main clause – adverbial clause’ and ‘matrix subject – adverbial clause - matrix predicate’ are examined as well and argued not to be derivable from the default order ‘adverbial clause – main clause’.

For this default order, two different analyses are in principle available, due to the homophony between the particles realizing Top<sup>o</sup> and the sentence-final particles (SFP) realizing C-heads. A particle such as *ne* is either analyzed as the head of TopP hosting the adverbial clause in its specifier (cf. (17a)), or as the head of CP (with the adverbial clause as its complement) adjoined to the main clause TP (cf. (17b)):

(17) a. [TopP [cond.cl. Rúguǒ tā bù lái ] (cf. (2) above)  
           if          3SG NEG come  
           [Top<sup>o</sup> [Top<sup>o</sup> ne] [TP<sub>main</sub> cl. Wǒ jiù zìjǐ qù ]]  
           TOP          1SG then self go  
           ‘If he doesn’t come, then I’ll go on my own.’

- b. [TP<sub>main cl.</sub> [CP [TP Rúguǒ tā bù lái ] [C° ne]]  
     if       3SG NEG come   SFP  
 [TP<sub>main cl.</sub> Wǒ jiù zìjǐ qù ]]  
     1SG then self go  
 ‘If he doesn’t come, then I’ll go on my own.’

Given that the data themselves often do not allow to settle the issue and that furthermore the choice between the two analyses also depends on one’s conception of *topic*, both options are maintained as analytical possibilities throughout the article.

The categorial identity of “conjunctions” is for the first time addressed systematically. Conjunctions in the sentence-initial position of the main clause (e.g. *nàme* ‘so’ in ...*nàme wǒ jiù zìjǐ qù* ‘...so I go on my own then’; cf. (17)) are sentential adverbs confined to the pre-subject position, a class independently attested for Chinese. They differ from the obligatorily TP-internal preverbal correlative adverbs in the main clause such as *jiù* ‘then’ in (17).

The status – adverb or head – of the numerous conjunctions in the adverbial clauses (e.g. *rúguǒ* ‘if’, *suīrán* ‘although’ etc.) is much more difficult to determine. As briefly mentioned above, this is due to two factors: the existence of another class of sentential adverbs, acceptable in *both* pre- and post-subject position (e.g. *xiǎnrán* ‘naturally’, *qíshí* ‘in fact’; cf. (7)), and the fact that Chinese allows *pro*-drop (null subject). The latter leads to a potential analytical ambiguity for a DP preceding the verb as either a subject in SpecTP (cf. (18a)) or a topic controlling a null subject in SpecTP (cf. (18b)).

- (18) a. [TP DP [T° [T Ø] vP]]  
       b. [TopP DP<sub>i</sub> [TP *pro*<sub>i</sub> [T° [T Ø] vP]]]

In combination with conjunctions, this positional ambiguity (SpecTP vs SpecTopP) gives rise to even more parsing possibilities, especially when the conjunction occurs to the *right* of an overt DP: ‘DP *conj*....’ as in (19):

- (19) Tā rúguǒ bù lái .....  
       3SG if       NEG come  
       ‘If he doesn’t come,....’

The possible analyses of this DP are: (i) adverbial clause subject (with the conjunction as adverb, cf. (20a)); (ii) adverbial clause topic (with the conjunction as C, cf. (20b)), and – depending on the presence or absence of an explicit subject in the main clause – (iii) matrix subject (cf. (20c)) or (iv) matrix topic (cf. (20d)):

- (20) a. [TP DP [T° [° Ø] adverb vP]]] ....  
       b. [adv.TopP DP<sub>i</sub> [CP C° [TP *pro*<sub>i</sub> [T° [T° Ø] vP]]]]] ....  
       c. [matrixTP DP [T° [T° Ø] [adv.cl. ...]]] ....  
       d. [matrixTopP DP [adv.cl. ...] [main cl. ....]]

The authors spell out the multiple analytical possibilities in the same detailed way as exemplified by (20a) – (20d) for all the different variants of ‘adverbial clause – main clause’ complex sentences (with the position of the conjunction and the presence of covert and overt subjects as variable factors). They argue that the only reliable test to decide between conjunctions *qua* heads and conjunctions *qua* adverbs is to extract the adverbial clause object to the sentence-initial position. Since this extraction gives rise to island effects, they conclude

that the adverbial clause conjunctions must be analyzed as heads (i.e. complementizers or adpositions), not as sentential adverbs.

The contribution *Adverbial clauses in Mandarin Chinese* by **Wei Haley Wei** and **Yen-Hui Audrey Li** is divided into three parts.

Part 1, *Preverbal adverbial adjuncts and clauses*, concentrates on those adverbial clauses whose default position is the sentence-initial position. Against this backdrop, their alternative positions are examined, i.e. the position below the matrix subject as well as the sentence-final position. An important result is the fact that in Chinese as well, we observe the dichotomy between *central adverbial clauses* (CACs) and *peripheral adverbial clauses* (PACs).

It is important to point out immediately, though, that argument topicalization (used as the main test in English) is not the relevant diagnostic to tell these two types apart. In fact, in Chinese, argument fronting is possible in many embedded contexts, such as the complement of factive verbs and hence clearly not a main clause phenomenon as in English. By contrast, the TP-internal position below the matrix subject and either above or below negation and modal auxiliaries, is shown to be a diagnostic for CACs. As a result, concessive (*suīrán* ‘although’) and inferential clauses (*jìrán* ‘since, given that’) are classified as PACs, for they are banned from the position below the matrix subject. In addition, the distinction between PACs and CACs can be supported by the acceptability of attitude-denoting TP-internal discourse particles (e.g. *yòu* ‘again-> obviously’) in concessive and inferential clauses when in their default sentence-initial position:

- (21) a. Jírán Zhāngsān yòu bú shì gùyì de,  
 since Zhangsan Attitude not be intentional DE  
 nǐ jiù yuánliàng tā ba.  
 you then forgive him SFP  
 ‘Since Zhangsan obviously is not intentional (in doing something), you might as well forgive him.’ (= their (80a))
- b. Rúguǒ Zhāngsān (\*yòu) bú shì gùyì de,  
 if Zhangsan Attitude not be intentional DE  
 nǐ jiù yuánliàng tā ba.  
 you then forgive him SFP  
 ‘If Zhangsan (obviously) is not intentional (in doing something), you might as well forgive him.’ (their (80b))

Such discourse particles are also excluded from genuine hypothetical conditional clauses, hence CACs (cf. (21b) above), but allowed in so-called “premise conditionals”, hence PACs (cf. (22) below):

- (22) Rúguǒ nǐ yòu bú shì zhēnxīn de, ...nà wǒ –  
 if you Attitude not be truly DE then I  
 nà wǒ jiù shāng-le wǒ mā de xīn le.  
 then I then break-PERF my mom DE heart SFP  
 ‘If you obviously are not truly in love with me, then I — then I would be breaking my mom’s heart.’ (= their (83))



Importantly, Wei & Li for the first time point out the relevance of TP-internal discourse particles as a diagnostic for the CAC vs PAC dichotomy in Chinese, the presence of discourse particles pointing to the projection of ForceP.

Finally, some reason and concessive clauses in the sentence-final position do not involve PACs, but instead are root clauses. In this case, both the “main clause” and the “adverbial clause” have their own illocutionary force and project their own DiscourseP; following Verstraete (2005, 2007) they are analyzed as being the conjuncts in a coordinate structure, hence no complex sentence with the adverbial clause modifying the assertion made in the main clause.

In Part 2, *Ordering and syntax-discourse-prosody interface*, Wei & Li investigate adverbial clauses in sentence-final position, based on the general consensus that the sentence-initial position is the default position for adverbial clauses (except for the exclusively sentence-final rationale, purposive and result clauses to be discussed in Part 3). They use a plethora of examples from written and oral corpora, providing the relevant discourse context as well as prosodic data (F0 diagrams). Two cases of sentence-final adverbial clauses are distinguished, each with its own syntactic analysis.

In the first case (corresponding to their type 3), the sentence-final position of the adverbial clause correlates with the emphasis of the first clause, i.e. the main clause. This emphasis is motivated by the speaker’s belief that the information in the main clause is unexpected for the hearer; the content of the adverbial clause is, however, assumed to constitute given information. Syntactically, the order is derived by raising the main clause from the base order ‘adverbial clause – main clause’, with the raising triggered by the [emphasis] feature on the main clause. This analysis is supported by the prosodic prominence on (part of) the main clause, indicated as bold face in (23) below. By contrast, the sentence-final adverbial clause has a low and falling pitch contour and is pronounced in a faster tempo than the first clause.

- (23) Nǐ **lándezhù** wǒ ma, rúguǒ nǐ xiǎng lán?  
 you be.able.to. stop 1SG SFP if 2SG want stop  
 ‘Are you able to stop me, if you want to stop me?’ (their example (19))  
 (Context: Even the speaker’s parents did not succeed in stopping her in the past.)

In the second case (corresponding to their type 4), the sentence-final adverbial clause provides new information and carries independent stress. It constitutes a fragment, an afterthought added to the preceding clause and to be interpreted within its scope. With respect to the scope relation, the sentence-final adverbial clause thus resembles an adverbial clause in sentence-initial position. This parallel is captured by adopting a bi-sentential-plus-PF-deletion-analysis. More precisely, the source structure is CP1, i.e. the main clause, followed by a complex sentence CP2, consisting of an adverbial clause preceding the same main clause CP1. Deletion of the second instance of CP1 then leads to the surface string: “main clause” - adverbial clause: [CP1 [CP2 adv.cl. ~~CP1~~] => CP1 adv.cl. Accordingly, CP1 is not a “main clause” within a complex sentence, but is shown to be an independent root sentence, as evidenced inter alia by its concluding intonation.

To summarize, conditional clauses in the sentence-final position are either peripheral (type 3) or central (type 4); by contrast, reason and concessive clauses in the sentence-final position can be either central, peripheral, or an independent root clause. Importantly, adverbial clauses in sentence-final position are never base-generated in their surface position. Wei & Li’s derivational analysis is thus different from the right adjunction analysis proposed in Pan & Paul (this volume). However, both analyses have in common that the order ‘main clause - adverbial clause’ is not just a “reversal” of the default order ‘adverbial clause – main

clause’, but involves a completely different structure, thus tying in with the general consensus in Chinese linguistics, going at least back to Chao (1968).

Against the background of this fine-grained analysis, Wei & Li then develop a new approach to the constraints holding for correlative adverbs such as *jiù* ‘then’ in a main clause that is *followed* by an adverbial clause and provide novel data so far not taken into account.

Part 3, *Postverbal purposive, rationale, and result clauses: complementation vs adjunction*, turns to the class of adverbial clauses that occur exclusively in postverbal position, i.e. rationale, result and purposive clauses.

- (24) a. Lǎoshī bǎ huàndēngpiàn fàngdà,  
 teacher BA slide zoom  
*yǐbiàn* [<sub>CP</sub> tóngxué-men dōu néng kàn qīngchǔ].  
 so.that student-PL all can see clear  
 ‘The teacher zoomed the slides so that the students could all see clearly.’
- b. Huàndēngpiàn zìtǐ tài xiǎo,  
 slide font too small  
*yǐzhì* [<sub>CP</sub> hòumiàn de tóngxué kàn bú qīngchǔ].  
 with.the.result.that back DE student see not clear  
 ‘The font of the slides is so small that the students in the back can’t see clearly.’
- c. Qǐng bǎ huàndēngpiàn fàngdà yīdiǎnr,  
 please BA slide zoom a.little  
*yǐmiǎn* [<sub>CP</sub> hòumiàn de tóngxué kàn bú qīngchǔ].  
 lest back DE student see not clear  
 ‘Please zoom the slides lest the students in the back can’t see clearly.’
- (25) Lǎoshī bǎ huàndēngpiàn fàngdà, (*lái*) quèbǎo  
 teacher BA slide zoom in.order.to ensure  
 [tóngxué-men dōu néng kàn qīngchǔ túpiàn].  
 student-PL all can see clear picture  
 ‘The teacher zoomed the slides (in order) to ensure that all the students can see the pictures clearly.’

Starting with the purposive clause in (25), the same structural analysis is proposed for purposives with and without *lái* ‘(in order) to’ (*bare purposives*), which are argued to be non-finite *vP* complements to the main verb located within *vP*, on a par with *vP* complements of control verbs. This is confirmed by tests involving the scope of the main clause negation and the c-command domain of the main clause object.

By contrast, the clauses headed by *yǐbiàn* ‘so that’ (cf. (24a)), *yǐzhì* ‘so that, with the result that’ (cf. (24b)) and *yǐmiǎn* ‘lest’ (cf. (24c)) license an overt subject DP, hence can be considered to be finite; they project an IP. They can, but need not be within the scope of negation. When in the scope of negation, they pattern with bare and *lái* purposives. When outside the scope of negation, they occupy a higher position, which is identified as right adjunction to a projection below the matrix subject and above negation, given that a null subject in the purposive clause needs to be controlled by the matrix subject.

To conclude this introduction, it is evident that there remain open questions to explore, despite the comprehensive and fine-grained nature of the analyses proposed here. We therefore hope that this special issue will inspire future research on the syntax and semantics of complex sentences.

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