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Taking Paul (2015) as a starting point, this article discusses different approaches concerning the contribution made by Chinese to general syntactic theory and typology. It demonstrates that the solution of basic questions such as the precise inventory of lexical categories can have far-reaching consequences for more general issues such as case theory, linearization, head parameter and the status of typological universals.

**Keywords:** Chinese syntax; syntactic theories; case theory; head parameter; linearization; word order change; isolating languages; cross-categorial (dis)harmony; left periphery

1 Introduction

This book is a summation, integration, reflection, and expansion of the author’s decades of work in published and unpublished papers, and conference presentations. The topics are representative of the main empirical and theoretical concerns that have consumed the energy and time of numerous linguists interested in the grammatical properties of Chinese and implications of such grammatical properties for universals and variations in human languages. The highlight is on several controversial issues that have generated endless debates in the literature. As pointedly phrased in the back cover of the book, “Mandarin Chinese has become indispensable for crosslinguistic comparison and syntactic theorizing. It is nevertheless still difficult to obtain comprehensive answers to research questions, because Chinese is often presented as an “exotic” language defying the analytical tools standardly used for other languages. This book sets out to demystify Chinese. It places controversial issues in the context of current syntactic theories and offers precise analyses based on a large array of representative data.” The issues addressed in this book include basic word order, ordering correlations, word order universals, adpositions, parts of speech, topic prominence, left periphery structures, and their implications for typological universals. Also of great interest are the large array of synchronic and diachronic data as well as detailed reviews of relevant works. The inclusion of diachronic data is especially welcomed, because the richness of implications from diachronic syntax to synchronic studies has not received its deserved attention adequately.

The book is well organized and clearly written; and the chapters, well balanced in length and depth. Great efforts were made to make the relevant assumptions and argumentation as clear and precise as possible. There are many claims and assumptions in the relevant literature that have been taken for granted or have remained vague over the decades. The author investigates what commonly accepted terms might mean and clarifies relevant issues. The
book reviews the major controversial issues in the last several decades in Chinese syntax, giving readers a good sense of the important debates in Chinese syntax, what the problems might be, what has been proposed, and what issues there might remain. It also presents different perspectives, laying out the arguments and relevant evidence for why these other perspectives are worth considering. Readers might not completely agree with the author's argumentation or conclusions or even data judgments. However, readers have relevant examples, assumptions, and mechanisms to work out the pros and cons of different proposals.

I thoroughly enjoyed reading this book. It will be a valuable resource for anyone interested in Chinese syntax and for anyone that might not be interested in Chinese, but is interested in some of the wide range of topics discussed in this book.

Whereas a short general review is not needed, given that the table of contents and main features of the book are easily accessible and most of the author's related works available at her website [http://crlao.ehess.fr/index.php?177], it is challenging to provide a detailed review of all the chapters of this 357-page book. Readers should also be able to have opportunities to form their own opinions of the book. Therefore, this report simply represents an attempt of pāo-zhuān-yǐn-yù ‘throw a brick to attract a jade, i.e. offer some insignificant as a start so that others will make valuable contributions’. It will briefly list the main points of the chapters, bring up a few major issues that can be considered further in regard to the main claims of the book, and then focus on the discussion and issues concerning prepositions and postpositions (Chapters 3–4 and part of Chapter 2).

2 Brief summary

The main points are all clearly summarized in the interim summaries and conclusions at the end of each chapter.

Chapter 1 is a brief introduction setting the stage for the chapters to come; Chapter 8 echoes the issues raised in Chapter 1, summarizes discussions of relevant constructions in Chapters 2–7, and elaborates on the major implications of Chinese “cross-categorial disharmony” on typological universals. A major theme of the book is that Chinese does not exhibit cross-categorial harmony in regard to the “head parameter” (consistently head-initial or head-final across categories). Therefore any universal claims regarding cross-categorial harmony cannot be adopted and relevant typological universals cannot be true. Historical changes play a role in determining the presence or absence of cross-categorial harmony. For instance, when prepositions are derived from verbs, cross-categorial harmony exists between VPs and PPs, both being head-initial. But when Chinese derives its adpositions from nouns, then postpositions are available, because the NP is head-final.

Chapter 2 discusses the issue of word order, what word order typologies really mean especially in the context of Chinese, whether Chinese is SVO or SOV, and whether there was a word order change in the history of Chinese. The theoretical setting is the notion of cross-categorial harmony, which is most appropriately expressed by X’-theory.

The main contribution of the chapter is to show from the perspective of diachronic syntax that Chinese has been consistently SVO, since the earliest scripts, i.e. the Shang inscriptions of pre-Archaic Chinese (13th c. – 11th c. BC). There was no VO to OV or OV to VO change historically. The signature construction for OV word order, the bǎ construction, is also discussed in length and bǎ is analyzed as a head taking a verbal projection as complement; therefore, it does not support OV word order.1 This issue is interesting

1 The analysis differs from Y.-H. A. Li (2006) and Huang, Li & Li (2009: Chapter 5) in the type of complement that bǎ takes. For Paul, it is an Aspect Phrase; whereas for Y.-H. A. Li (2006) and Huang, Li & Li (2009), it is a vP. The argument given in favor of the analysis proposed here is the possibility of deriving ‘S bǎ NP V-Asp’ via V-to-Asp° raising, whereas Huang, Li & Li would require an AspP above BaP and establishment of the relation with the aspectual suffix on the verb via Agree without movement. Y.-H. A. Li (1990) notes that an aspect marker can appear in an embedded infinitival clause, but be interpreted as if it were in the matrix clause, which shows that a “pure” Agree relation between Asp’ and V might also be needed elsewhere.
because of the many seemingly OV properties in this language, such as the presence of sentence-final particles and modifiers preceding the modified.

Another noteworthy point is that phrasal and non-phrasal adjuncts in Modern Mandarin are completely banned from the postverbal position. The ban can be observed from approximately the 3rd c. AD onwards. Before that period, phrasal adjuncts were possible postverbally. By contrast, non-phrasal adverbs (‘also’, ‘again’ etc.) have always been confined to the preverbal position below the subject.

Chapter 3 focuses on the inventory and behavior of prepositions. It includes very interesting and valuable discussions built on the data from pre-Archaic Chinese. The issues of whether there were and are prepositions in Chinese and whether prepositions are “all” derived from verbs are very clearly presented. The chapter argues for the distinction between verbs and prepositions since pre-Archaic Chinese. A “coverb” should not exist – an element in the process of changing from a verb to a preposition, having mixed properties of verbs and prepositions. V and P might look alike, but they represent two different items with distinct behavior. That is, a verb can be reanalyzed as a preposition, and V and P can co-exist for a certain period of time. A source verb need not be affected by the emergence of a new preposition, though it is possible that the verb itself undergoes change and may disappear altogether. In regard to syntactic positions, a PP occupies a postverbal position only when it is an argument selected by the verb; otherwise it occurs in the preverbal adjunct position to the right or left of the subject.

Chapter 4 focuses on the category postposition. Postpositions are a category distinct from nouns according to these criteria – (i) meaning difference (zhuōzǐ shàng-bian ‘table top’ = ‘the upper side of a table’ vs zhuōzǐ shàng ‘table on’ = ‘on the table’), (ii) unacceptability of the subordinator de between a postposition (e.g. shàng ‘on’) and its complement vs possibility of de with nouns (zhuōzǐ de shàng-bian ‘table DE top’ = ‘the upper side of a table’ vs zhuōzǐ de shàng ‘table DE on’), and (iii) ban on P-stranding. Postpositions in Chinese can be derived from nouns (‘top, bottom, front, back’ etc.) or from verbs, as in the instances with qǐ ‘starting from’ < verb qǐ ‘rise’, lái ‘during’ < verb lái ‘come’, and those containing yǐ, such as yǐhòu ‘later’, yǐqián ‘ago’ etc. (Paul 2015: 95–97) (cf. Section 3.3.2 below for detailed discussion). The chapter further argues for the existence of circumpositional phrases (CircPs), i.e. complex adpositional phrases containing both a preposition and a postposition, such as zài zhuōzǐ xià ‘at table under’ = ‘under the table’, cóng míntiān qǐ ‘from tomorrow on’ etc. These CircPs are said to involve the same ‘Path over Place’ hierarchy as observed for other languages (cf. Section 3.3.3 below for further discussion).

Chapter 5 turns to the adjectival category in Chinese, adding to the point made in Chapters 3 and 4 that an isolating language like Chinese does not have a reduced inventory of categories compared with inflecting languages such as Indo-European languages (Paul 2015: 91). Building on morphological processes and the capability of serving as predicates, the chapter argues for adjectives as a separate category, distinct from verbs. The chapter also shows that both [DP adjective de N] and de-less [NP adjective N] expressions should be analyzed as phrasal. In addition, not all adnominal modifiers subordinated by de in [DP Mod de NP] can be analyzed as involving relative clauses.

Chapters 6 and 7 turn to the clausal periphery: what a topic is syntactically and semantically in Chapter 6, and what the layers of a split CP are in Chapter 7.

Chapter 6 discusses extensively the information status of topic and establishes the left periphery of clausal structures, especially in regard to the projection of topic and focus. The positions after the subject are also considered (internal topic vs focus). According to the author, a topic can convey both old and new information. It either indicates an “aboutness” relation or sets the frame for the main predication. Positionally, it can be external or internal in a sentence. A sentence-external topic is the XP to the left of the subject occupying the Spec of Topic Phrase (TopP). This definition necessarily separates
a topic from a subject. A sentence-internal topic is to the right of the subject, which in the literature has sometimes been analyzed as focus. According to the author, lián ‘even’ phrases represent the focus projection. The relative ordering between sentence-external/sentence-internal topic phrases and lián ‘even’ phrases indicates that Rizzi’s (1997; 2004) cartographic approach is not quite suitable to capture the overall ordering relations observed in the Chinese sentence periphery. In contrast to Rizzi’s allowing a topic phrase below a focus phrase, “Chinese has a contiguous domain consisting of one or several topics, where topics obligatorily precede the lián ‘even’ FocP and are barred from a position below that FocP.” (Paul 2015: 244–245).

In Chapter 7, sentence-final particles (SFPs) are examined. SFPs are heads in a split CP, which are AttitudeP, ForceP and ClowP (Low Complementizer). A low C is láizhe, ne₁, and the sentence-final le. ForceP heads are ma, ne₂ (different from the low C ne₁ and the next higher one ne₃), ba for confirmation request or conjecture, and another ba for advice or suggestion. Attitude heads are ne₃, bàle, ei, zhene, a, ou etc. (see the table in page 284). Some C heads only occur in root or only in non-root clauses. An important generalization is that these SFPs are C heads with their complement to the left – a head-final order in contrast to the head-initial order in VP and prepositional phrases. This again exhibits cross-categorial disharmony.

3 Comments
3.1 Main theme
Throughout the chapters, an important point is highlighted: Chinese is a real case of “cross-categorial disharmony”: it does not have the same ordering of head-complement across categories. Even within the same category of adposition, both prepositions and postpositions are present.

“Cross-categorial harmony” as in typological works by Greenberg (1963), Hawkins (1980) etc. can be phrased in terms of absolute universals – universals without exceptions. There are also universal tendencies; exceptions are possible. For instance, objects tend to follow or precede verbs and adpositions, indicating that deviations from the V/P + Object or Object + V/P order can be found. Because the distinction between typological universals and tendencies is essentially an empirical issue and is not pre-determined by any principle or rule in the framework of typological studies, even if Chinese challenges some alleged absolute universals, it does not fundamentally challenge this line of work. An absolute universal can just be changed to a universal tendency; the entire framework need not be revised. However, “cross-categorial disharmony” poses more interesting challenges to X'-theory, especially when the head parameter is assumed to be operative – languages either are consistently head-initial or head-final. Nonetheless, grammar involves interactions of different modules. In the spirit of a modular approach to linguistic analysis, the apparent disharmony in Chinese need not be a real counterexample to the claims of X'-theory and the head-parameter, because the head-parameter can interact with other components of grammar, such as case theory and control theory, resulting in seemingly cross-categorial disharmony, as in Koopman (1984), Travis (1984) and Y.-H. A. Li (1985; 1990). The book mainly raises questions on the line of analysis built on Case theory interacting with the head parameter. Left open are the creation of apparent cross-categorial disharmony by other operations, such as movement. Proposals such as moving the complement of a C head, an IP for instance, to the Spec of C (or some functional heads and projections of a split CP) can be considered (see, for instance, Simpson & Wu 2002; Hsieh & Sybesma 2011).

Moreover, generative theory keeps evolving and analyses continue to be revised and refined. In the framework of bare phrase structure, coupled with the constraint on binary branching structures (already adopted by most works within the framework of X'-theory),
languages do not differ in the way items are merged. Items from the numeration are merged one by one, forming layers of binary-branching hierarchical structures. The hierarchical ordering is mapped to linear ordering through a spell-out algorithm. The spell-out algorithm is where differences in assumptions have occurred. One is represented by Kayne (1994), and the other by Takano (1996). When sisters of a head X and a complement YP are to be linearized, Kayne’s algorithm spells out the head first and Takano’s, the complement first, deriving different word orders – VO or OV. Because a subject is higher hierarchically, the word order is SVO or SOV, respectively. To derive different word orders from the basic SOV (Takano), V-movement takes place, and the height of verb-raising derives SVO or VSO order (cf. C.-T. J. Huang 2003). To derive different word orders from the basic SVO (Kayne), object movement and/or VP movement, etc. take place. Languages may also differ in regard to what functional categories are available, prompting items to move to different heights in different languages (e.g. an Object Agreement projection dominating a verbal projection forces an object to raise). In this sense, it would be interesting to recast the issues regarding “cross-categorial harmony/disharmony” in terms of what functional categories there are within relevant projections, and what movement operations are available. Language universals and variations would be defined in ways different from what the book presents.

3.2 Chapters

Regardless of how theories and analyses evolve, empirical generalizations always stand. Adequate and meaningful description of facts therefore should be a main concern of linguistic research. This book focuses strongly on examining and interpreting data in a careful manner to establish empirical generalizations. This is evident throughout the chapters, such as demonstrating the word order being VO consistently in Chinese, the presence of prepositions since pre-Archaic Chinese, the types of postpositions present in the language, the distinction between different types of adjectives and their morphological processes, differences between topic and focus, and layers of sentence-final particles. The detailed description of relevant constructions provides a more comprehensive picture of the data and issues that any analysis must accommodate or address, and at the same time brings to light the areas where further exploration is desirable, especially considering the time lapse between the book publication date and this review date. For instance, if sentence-final particles (SFPs) discussed in Chapter 7 involve coordination structures as proposed by Sze-wing Tang (2015; 2016), the word order of sentences with SFPs would be like that of a conjunction structure, which is head-initial, not head-final as proposed in Chapter 7. The discussion in Chapter 6 on topic vs focus might benefit from clearer and more detailed distinctions of different kinds of information, including contexts for new vs old information, types of focus beyond the ‘even’ focus used in the chapter, so that the difference between topic and focus, properties of focus and focus projections in clausal structures can be clearer. Chapter 5 on adjectives probably can be read side by side with a just published article by Feng-hsi Liu (2016).

The extensive discussion of data and analyses in the chapters also brings to focus some interesting facts that have kept linguists searching for convincing analyses. For instance, even though Chinese is shown to be VO from pre-Archaic to modern Chinese (at least on the surface), there was an interesting word order change – true adjunct PPs were allowed postverbally in pre-Archaic Chinese. However, the ban on adjuncts in postverbal position was “observed from approximately the 3rd c. AD onwards” (Paul 2015: 14). In addition, while multiple adjunct PPs were allowed in preverbal position in pre-Archaic Chinese, only one was allowed postverbally. To account for the change from allowing to disallowing adjuncts postverbally, the book refers to an analysis by Djamouri, Paul & Whitman (2013) on the loss of the Larsonian VP shell structure in modern Chinese. The book does
not go into the details of the analysis, and the original paper also describes such a proposal only briefly. This raises the following questions. If a postverbal adjunct is allowed due to the presence of VP shell structures, as in English, why is it that English allows multiple adjuncts postverbally, but Chinese at most allowed only one? In addition, it is not clear if VP shell structures are not available in modern Chinese. Modern Chinese allows not only an object postverbally, but also multiple complement structures such as double object and dative constructions, which typically have been analyzed as involving VP shell structures (see, for instance, Aoun & Li 1989; 1993). Moreover, modern Chinese allows postverbally subcategorized objects as well as non-objects such as duration, frequency, resultative, descriptive expressions, and purposive clauses. Again, to derive these constructions under strict binary-branching phrase structures, some VP shell structures have been adopted (see, for instance, Soh 1998).

There are many other interesting follow-up questions one can raise and alternative analyses considered, if each chapter is read carefully. As it is a serious challenge to present here all the issues that can be explored further, I will, in the following sections, focus on the discussion regarding prepositions and postpositions in part of Chapter 2, and Chapters 3 and 4.

### 3.3 Adpositions

The main issues on adpositions include (i) tests to determine if an element is a preposition or postposition, instead of a noun or a verb, (ii) distribution of prepositional and postpositional phrases, and (iii) internal structure of prepositional and postpositional phrases.

#### 3.3.1 Tests for P vs N vs V

Three tests are proposed to tell adpositions apart from “corresponding” homophonous nouns or verbs: (i) semantic differences between a preposition or postposition vs a noun or a verb, (ii) possibility of occurring with an aspect marker, (iii) relevance of P-stranding, and (iv) possibility of the modification marker de in the case of postpositions vs nouns.

#### 3.3.1.1 Meaning differences

On the factor of semantic differences, some cases are clearer than others. There are also cases where, even though meaning differences can be detected, there is still no consensus on how such semantic differences should be understood and analyzed. Consider the so-called postverbal PP headed by gěi ‘to, for’. It is clear that such a postverbal gěi-phrase and a preverbal gěi-phrase can have different meanings (a preverbal, not postverbal, gěi-phrase can be a beneficiary). Y.-H. A. Li (1990) claims that the postverbal gěi has the meaning of transfer – the meaning of a verbal gěi ‘give’. Analyzing such a gěi as a verb according to its verbal meaning (transfer) rules out cases of a gěi-phrase postverbally when transfer does not take place, for instance with chàng ‘sing’, as in chàng gěi tā *(tīng) ‘sing song gěi s/he listen’ = ‘sing a song for her/him to listen’. The verb tīng ‘listen’ must appear so that the gěi-phrase is not a postverbal constituent of ‘sing songs’, but occupies a preverbal position in the clause whose verb is ‘listen’: ‘sing a song for him to listen/*sing a song to him’. This is part of Y.-H. A. Li’s analysis disallowing postverbal PPs.

However, the paragraphs in page 79 express doubt about this analysis of gěi: “given that the verb gěi ‘give’ does allow for abstract direct objects (cf. (64)), it is not so much the non-transferrable nature of gě ‘song’ which is at stake here, but rather the fact that a benefactive gěi-PP is barred from postverbal position in general [...].”
(1) (Paul 2015: 80, (64a-b))

a. Tā gěi-le wǒ yī ge hěn hǎo de yǐnxìng.
   3SG give-PERF 1SG 1 CL very good SUB impression
   ‘She made a very good impression on me.’

b. Tā zhèi cì gěi-le wǒ hěn dà de bāngzhù.
   3SG this time give-PERF 1SG very big SUB help
   ‘She gave me a lot of help this time.’

It is not clear why the notion of transfer for the verb gěi should be questioned when the object is an abstract one. Note that English directly uses the verb give, as the translation in (1b) indicates. (1a) need not be translated with the verb ‘made’. It can simply be ‘He gave me a very good impression’. It is not clear why Chinese gěi cannot simply be the counterpart of the English verb give in these instances.

Nor is the presence of semantic differences as clear as stated for all speakers. Pages 107–108 have these statements: “The confusion between postpositions and location nouns and their subsequent conflation into one nominal category is only possible when completely glossing over the associated differences in meaning. It suffices to examine a few ‘postposition – location noun’ pairs to detect these differences: shū shàng ‘in the book’ (cf. shū shàng de gùshì ‘book on sub-story’ = ‘the story in the book’) vs shū shàngbian ‘the upper side of the book’ (cf. *shū shàngbian de gùshì ‘book upper.side sub-story’); bāozhǐ shàng ‘in the newspaper (spatial and abstract location)’ vs bāozhǐ shàngbian ‘the upper side of the newspaper’. Accordingly, the common practice adopted by the proponents of the nominal analysis of postpositions to treat postpositions and “corresponding” location nouns as quasi-synonyms is not correct at all. Also note that the “counterpart” in form of a location noun – modulo the semantic differences – only exists in the case of spatial location, but not for postpositions indicating temporal and abstract location, another point completely neglected in the literature and one which has considerably biased the analysis of postpositions.”

However, it is not clear that all speakers share the judgment as stated. Examples like the following ones are abundant online, which all show that NP shàng–mian/bian ‘NP top-side’ does not need to express the physical meaning. That is, they do not mean the upper side of objects in the examples below. The meanings are not changed if –mian/bian is deleted in the following examples.²

(2) a. (https://www.facebook.com/pinocchio6800/posts/632100400134867)
   Zuìjìn zài bāozhǐ shàng-mian kàn dào yīng’ér yóuyǒng
   recently at newspaper top-side see baby swimming
   bān de zīxùn.
   class SUB information
   ‘Recently, (I) saw information about swimming classes for babies in the newspaper.’

   yú qièjiēshū shàng-mian dībā tiáo
   at affidavit top-side eighth item
   ‘the eighth item in the affidavit’

² These examples were copied from the cited webpages in the weeks of July 11–25, 2016.
In addition, temporal and abstract expressions are also acceptable with location nouns with –mian/bian, contra the statements quoted above, and those in page 93: “The controversy around postpositions also illustrates once again the bias introduced by concentrating on spatial location, to the detriment of temporal and abstract location […]. As soon as the entire range of location is taken into account, e.g. zuōzǐ shàng ‘table on’ = ‘on the table’, huìyì shàng ‘during the conference’, lǐlùn shàng ‘in theory’, the analysis of postpositions as “localizers” is no longer viable and their syntactic and semantic differences with respect to location nouns such as shàngbiān ‘upper side’ becomes evident. The latter cannot indicate temporal and abstract location; accordingly, only zuōzǐ shàngbiān ‘the upper side of the table’ is fine (modulo the meaning difference with respect to zuōzǐ shàng ‘on the table’), but *huìyì shàngbiān ‘the upper side of the conference’ and *lǐlùn shàngbiān ‘the upper side of the theory’ are ungrammatical.”

Again, we can find many online examples showing that temporal and abstract expressions are possible with –bian/mian:

(3) a. (http://www.zhihu.com/question/38825892)
zhōngyāng jīngjì gōngzuò huìyì shàng-mian tídào de central economics work meeting top-side mention SUB guānyǔ fángdiǎn cuòshī suǒwèn regarding real.estate SUB measure ‘measures regarding real estate mentioned in the central government meeting on economics’

b. (http://blog.sina.com.cn/s/blog_7bbd784d0102xedp.html)
Gòngchǎng dǎng bìxū zài lǐlùn shàng-mian zhènghuò qìngyuán. communist party need at theory top-side correct.root clear.origin ‘The communist party must solve the fundamental problem in theory.’

c. (https://read01.com/Me5zg3.html)
Cǐshí Qiūjí’ěr zhēng zài zhànshí huìyì shàng-mian at.the.time Churchill right at warfare meeting top-side chōu xüējiā, biān tào lùn zhànshí. smoke cigar simultaneously discuss warfare ‘At the time, Churchill was smoking cigars at the wartime meeting and simultaneously discussing warfare.’

d. (http://big5.quanben-xiaoshuo.net/read/1/zhongshengzhiguanshangfeng-liu/1/125.html)
Xīn lì-bian xiǎng bì yě shì nénggòu míngbái. heart in-side think necessarily also be can understand ‘When thinking about this in the heart, (we) can certainly understand (it).’

Accordingly, we can conclude that, at least for the speakers that posted relevant examples online and for this reviewer, the localizer shàng/xia/li etc. can always have a locative noun counterpart containing –bian/mian with the same meaning.

The de-test, the other important test Paul proposes to distinguish nouns from postpositions, is less clear. Although we do find online examples like the following ones (accessed online on August 10, 2016), de is much less used and even regarded as unacceptable in some instances.
There is still a lot to be explored about the relevant issues. The debate on how to analyze such location nouns/localizers/postpositions will continue.

### 3.3.1.2 Syntactic tests

The second through the fourth tests concern the syntactic behavior distinguishing Ps from Ns/Vs – the (im)possibility of aspect markers, P-stranding, and the marker de between a localizer/postposition and the associated noun. The tests can be understood as this: if an element cannot be suffixed with an aspect marker, does not allow the associated NP to be moved or empty, or cannot occur with de, then such an element should be a P, not a V or N.

Note that these tests are all in the negative form. Paul (2015: 107) emphasizes that these tests apply conjointly to the item under investigation.

Logically, if an element has a certain property specific to a category, then, yes, the element can be considered as a member of that category. However, the fact that an element lacks a certain property can be due to a variety of reasons.

For instance, in rejecting a localizer being analyzed as a noun, the following support is given in page 98: “Ernst (1988) already addressed the latter issue for the three postpositions shàng ‘on’, xià ‘below’ and lǐ ‘in’ and provided two conclusive tests that distinguish them from the “corresponding” location nouns shàngbian ‘upper side’, xiàbian ‘underside’, and lǐbian ‘inside’. First, like prepositions, postpositions always require an overt complement […]. Second, nothing can intervene between the postposition and its complement, and accordingly, the item de subordinating modifier phrases to a noun is excluded here as well […]. Location nouns such as shàngbian ‘upper side’, by contrast, can occur on their own […] and also allow for the presence of the subordinator de […]”.

However, there might be other reasons for the noted behavior. Feng-hsi Liu’s (1998) clitic analysis provides an option: a localizer is a clitic attached to the preceding NP. A clitic (bound morpheme) cannot be separated from its host by an extra de and requires its host to be present (but cf. pages 103–104 where Paul challenges Liu’s clitic analysis). Huang, Li, & Li (2009: Chapter 1) pursue this further and try to clarify what such a clitic should be. Importantly, they want to answer the question of whether a localizer is more like an N or a P. The answer is that it is more like an N, especially considering the acceptability of expressions like the ones below (cf. Huang, Li & Li 2009: 20–21, also cf. their localizer analysis in pages 14–21).
(5) (Huang, Li & Li 2009: 20, (25a), (25b))

a.  

<table>
<thead>
<tr>
<th>X</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>cháō ‘facing’</td>
<td>lǐ ‘inside’</td>
</tr>
<tr>
<td>xiàng ‘facing’</td>
<td>wài ‘outside’</td>
</tr>
<tr>
<td>kào ‘by the side of’</td>
<td>shàng ‘top’</td>
</tr>
<tr>
<td></td>
<td>xià ‘underneath’</td>
</tr>
<tr>
<td></td>
<td>qián ‘front’</td>
</tr>
<tr>
<td></td>
<td>hòu ‘back’</td>
</tr>
</tbody>
</table>

b. Tā kào hòu zuò-zhe
   he by back sit-ZHÉ
   ‘He sits by the backside. → He sits on the back.’

In these cases, X is a verb, taking the following localizer (L) as its object, forming a VP. The localizer is a bound morpheme and the verb cannot be suffixed with an aspect marker.

(6) a. Nǐ yīnggāi [kào hòu].
   2sg should move.toward back
   ‘You should move back.’

b. Nǐ yīnggāi [xiàng qián].
   2sg should move.toward back
   ‘You should move forward.’

c. Nǐ yīnggāi [cháo wài].
   2sg should face outside
   ‘You should face outside.’

Note further that neither the V nor the L in these examples can be missing or moved. They form a unit morpho-syntactically. According to the aspect marker and P-stranding test proposed in Chapters 3–4, kào, xiàng and cháō in these examples would not be considered as verbs. However, they are verbs here, heading VPs as complements of an auxiliary, and serving as predicates of the sentences (e.g., acceptable in the ‘A-not-A’ question form, when the modal yīnggāi ‘should’ is absent). Other tests such as those with negation and adverbials also indicate that the bracketed expressions above are VPs. This shows that there are cases where Paul’s criteria for P-hood do not work properly.

The incompatibility of the verbs in (6a) – (6c) with aspect markers also illustrates the difficulty of using the aspect marker test to establish something as a P rather than a V. Chapter 3 provides examples like the following to establish the claim that the postverbal gěi is a P, not another V.

(7) (Paul 2015: 75, (53a))

| Tā mài-le yī ge shǒubiāo [šp gěi (*-le) Měili]. |
| 3sg sell-PERF 1 cl watch to -PERF Mary |
| ‘He sold a watch to Mary.’ |

However, in addition to (6a) – (6c) above and the verbs known to be incompatible with aspect markers, such as shǐ ‘make, cause’, ràng ‘let’ etc., constructions containing infinitivals are also less acceptable with an aspect marker suffixed to the infinitival verb, or to both the infinitival verb and the dominating verb, although it is not entirely impossible. Huang, Li & Li (2009) adopts Y.-H. A. Li’s (1990) analysis for double object and dative
constructions with *gěi* phrases. The structure suggested is that the constructions containing a postverbal ‘*gěi* NP’ “do not involve PPs” (Y.-H. A. Li 1990: 105). Instead, they are either serial verb constructions (SVC) [V NP1 V NP2], such as *wǒ mǎi shū sòng tā* ‘I buy book give him’ = ‘I bought books to give to him’, or constructions involving V-V compounds [[V V] NP2 NP1]. SVCs can involve a purposive clause, or, more generally, “two verb phrases with the second one depending on the completion of the first one” (Y.-H. A. Li 1990: Section 4.3.2). Accordingly, the structure for *wǒ mǎi shū gěi tā* ‘I buy book *gěi* him’ = ‘I bought books for him’ is just like *wǒ mǎi shū sòng tā* ‘I buy book give him’ = ‘I bought books to give to him’. Specifically, it involves VP shell structures, like the constructions with multiple constituents after a main verb, discussed in Huang, Li & Li (2009: Chapters 3–5). Aspect markers are not equally found in the two VPs in SVCs. However, as noted in Li’s (1990) discussion of tensed vs infinitival clauses, it is possible for an infinitival verb to bear an aspect marker, as shown in (8):4

(8) Deng tā zhōngyú mǎi míngguì shǒubiāo gěi-le tāmen yīhòu, wait 3sg finally buy expensive watch give-PERF 3pl after wǒmen jiù qù zhǎo tāmen. 1pl then go visit 3pl

‘Wait till he buys expensive watches given to them, then, we go visit them.’

Another example illustrating the difficulty of the aspect marker test concerns a contrast between verb-adjacent *gěi* and *zài/dào* phrases (P *zài* ‘in, at’, V *zài* ‘be at’; P *dào* ‘until, to’, V *dào* ‘arrive, reach’) noted in Chapters 3–4. This case will also illustrate the challenge of using the so-called P-stranding test. Chapter 3 (pages 79–81) notes that V-*gěi* can be suffixed with –*le*. This is unexpected under an analysis of *gěi* as a preposition, because, according to the chapters, a preposition is incompatible with aspect markers. The author therefore proposes to analyze *gěi* in V-*gěi-le* as an applicative head, with the verb raised and left-adjoined to it. On the other hand, page 81 notes that ‘V-*zài/dào-le* NP NP’ with an additional “applied” NP is not possible, only ‘V-*zài/dào-le* NP’; *zài/dào* thus cannot realize an applicative head. However, (29) – (30) in page 113 show that V-*zài/dào-le* is possible: “the verbs *dào* and *zài* – homophonous with the prepositions *dào* and *zài* – are part of the verbal compound.” Visibly, being an applicative head to which the verb has raised and allowing for an aspect marker are two different things:

(9) (Paul 2015: 113, (29), (30))
   a. Tā de gùshì dēng-zài-le [PostP bàozhǐ shàng].
      3sg SUB story publish-be.at-PERF paper on
      ‘His story got published in the newspaper.’
   b. Tā yī xià tiào-dào-le [PostP wǔ mǐ yǐwài].
      3sg 1 time jump-reach-PERF 5 meter beyond
      ‘He directly jumped further than five meters.’

The question that arises is what independent evidence or tests there are to make something an applicative head, vs P, vs V. Moreover, it is not clear why it is obligatory for the verb to move up and adjoin to the applicative, even when the applicative head is realized

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3. This responds to the questions raised in page 78 “they [Huang, Li & Li in their 2009 chapter] do not give any indication, though, as to the exact type and size of the projection (e.g. VP, vP or a clause with a null subject) containing the alleged verb *gěi*, nor do they mention the unacceptability of the aspect suffix on *gěi* here.”

4. Not mentioned in Y.-H. A. Li (1990), the limited context most likely has to do with where the focus of relevant information is.
as an independent morpheme ɡěi. More importantly, the properties of the relevant elements do not fall smoothly into the classification made in these chapters. According to the author’s account of (9a) and (9b), we should expect the object of V-zái/dào to be able to be moved or be covert. Unfortunately, for zài, an overt object must appear after zài:

(10) *(Bàozhǐ shàng) tā de gǔshi děng-zài-le.
    paper on 3SG SUB story publish-be.at-PERF
    (‘In the newspaper, his story got published.’)

In this regard, it should be noted that not only the so-called prepositional ɡěi does not allow its object to be null, the sentence is equally bad when ɡěi is replaced by a true verb such as sònɡ ‘give as gift’:

(11) (a) *Méi lǐ, tā mǎi-le yì ge shǒubiǎo [ɡěi e_i]. (cf. (7) above)
    Mary 3SG buy-PERF 1 CL watch to
    (Mary, I bought a watch to give’.)

For the goal phrase dào-NP occurring with the verb ji ‘send/mail’, it is true that an aspect marker is possible with V-dào and the object can be empty or moved. However, note that a dào phrase cannot appear preverbally to mean the arrival of the object. It has to mean the arrival of the subject:

(12) a. Tā dào Fǎguó jì yì fēng xìn.
    1sg arrive France send 1 CL letter
    ‘He arrived in France and sent a letter.’

b. Tā jì yì fēng xìn dào Fǎguó.
    3sg send 1 CL letter arrive France
    ‘He sent a letter to France.’

Dào must be a verb according to the proposed tests; and the author did analyze dào as a verb in V-dào. If dào can be a verb, it should be able to function as a verb in serial verb constructions, tā jì shǐ dào Fǎguó ‘He sent/mailed a book (for it) to arrive at France’, parallel to tā mǎi shǐ sòng wǒ ‘He bought a book to give to me’. The dào in (12a) should be a verb as well, given that it has to mean the arrival of the subject, rather than the goal of the mailing. However, it is difficult for the object of dào to be empty or moved regardless of whether the dào-phrase follows the postverbal object or precedes the verb. Moreover, an aspect marker after dào in [V NP dào NP] is as acceptable or unacceptable as in the case with ɡěi:

(13) a. Tā dào-le Fǎguó jì yì fēng xìn.
    1sg arrive-PERF France send 1 CL letter
    ‘He arrived in France and sent a letter.’

b. Tā jì yì fēng xìn dào-le Fǎguó.
    3sg send 1 CL letter arrive-PERF France
    ‘He sent a letter to France.’

### 3.3.2 Distribution of prepositional and postpositional phrases

In regard to the distribution of adpositional phrases, the generalizations proposed in this book are:
argument PPs can occur preverbally or postverbally
adjunct PPs occur before or after subjects, but not postverbally (in Modern Mandarin)
postpositional phrases (PostPs) can be nominal modifiers, but prepositional phrases (PrepPs) are only possible when the modified noun is a relational noun. In addition, PrepPs and PostPs are not identical in regard to their positions in sentences.

Where the generalization in (i) differs from Y.-H. A. Li (1990) – the one that the discussions in the chapters contrast with – is that postverbal “PrepPs” are not true PPs under Li’s analysis (and “PostPs” are actually noun phrases). Rather, such “PrepPs” are VPs. Subcategorized PrepPs occur preverbally. As noted above, the tests to distinguish VPs and PPs are not as clear as hoped for. Therefore, I would leave this as an unresolved issue. For the second one, the question that should be raised concerns the necessity of a generic preposition zài ‘at’ preceding a PostP when the PostP is in true adjunct positions. This holds for so-called postpositions derived from nouns (localizers) and from verbs, discussed at the end of this section.

The author imposes a requirement on PPs in adjunct positions – they must be path phrases. However, it is not clear if this requirement follows from any independently needed principles. In addition, it is not clear why only PostPs behave like location nouns such as Fǎguó ‘France’ and huǒchēzhàn ‘train station’. For example, both location nouns and the so-called PostPs with localizers occur in Case-marked positions (including topic positions), and they must be objects of prepositions in adjunct positions. Nor is it clear why zài is still needed in dative constructions, where the PostP should be an argument, and no reasons are given why a PostP in this context is not adequate.

This brings us to the third issue: PrepPs vs PostPs. Y.-H. A. Li’s (1990) generalization is that true PPs do not occur in the prenominal modifying position. In a later work (Y.-H. A. Li 2008), she shows that alleged counter-examples are not problems. The alleged PostPs are noun phrases; therefore they do not challenge the generalization that Chinese does not allow prenominal PPs. Apparent prenominal PrepPs are actually relative clause structures. Regarding the question raised in Chapter 3 of this book – why the relative clause analysis in Y.-H. A. Li (2008) does not apply to other cases (i.e., those with real PPs in Y.-H. A. Li’s analysis), Y.-H. A. Li (2008) notes that the relative clause structure is restricted to the cases with apparent PPs because the apparent PPs are actually verb phrases (in line with Chunyan Ning 1993). Moreover, it is not clear if the noted restriction can simply be stated in terms of restriction to “relational nouns” as in this book (cf. generalization (iii) above).
Other proposed properties of PostPs and PrepPs are not entirely clear, either. For instance, pages 115–116 discuss what can serve as subject of 使 ‘be’: “Nominal subjects are of course completely acceptable; PostPs are of marginal or variable acceptability (marked as #) depending on the speaker, while PrepPs are completely unacceptable”. The chapters do not go further to explain why there are such differences. Moreover, the data used to illustrate the marginal status of PostPs might be due to the somewhat strange expression 火前 ‘stove-front/in front of stove’ (cf. (16)). Many other so-called PostPs, [N+localizer] expressions, are fine in this position:

(16) (Paul 2015: 116, (41b))
[#[PostP 柴火前 使 最暖的 火] ]

stove in.front.of be most warm SUB place

‘In front of the stove is the warmest place.’

(17) a. 粤上/下大概使最脏的 火

table-on/under probably be most dirty SUB place

‘On/under the table probably is the dirtiest place.’

b. 树下/前通常使孩子喜欢

tree-next.to/under usually be child like take.advantage cool

SUB place

‘By the tree/under the tree is usually the place where the children like to enjoy the cool.’

c. 门前/后都 不使放鞋的 火

door-in.front.of/behind all NEG be put shoe SUB place

‘In front of/behind the door is not a place where to put shoes.’

It seems that 火前 ‘in front of the stove’ is just not that natural, even when 在 ‘at’ is added and used as an adjunct:

(18) 我在火前坐著。

1SG at stove -in.front.of sit-DUR

‘I’m sitting in front of the stove.’

The same holds for other N-zi-前 expressions such as 粤前 ‘in front of the chair’, 粤前 ‘in front of the table’. In (16), replacing 火前 with 火火前 (‘stove-fire-front’ = ‘in front of the stove fire’), without the nominal marker -zi, seems to sound better. Because other [N+localizer] expressions are fine in the subject position of 使 ‘be’, I will take it as a general rule that the so-called PostPs [N+localizer] are acceptable in this position. This is in contrast to PrepPs, which do not occur in argument positions. The contrast does not seem to receive an adequate analysis in Chapters 3–4.

Chapter 4 emphasizes that there is a second type of PostPs, in addition to those with localizers – the ones derived from verbs: 了 ‘during, over’ < verb 来 ‘come’; 于 ‘starting from, on’ < verb 于 ‘rise’; items containing 于, such as 以前 ‘ago, before’, 以后 ‘beyond, besides’ etc. Comparing with prepositions, the emergence of postpositions seems to be surprising, if we take what the author claims about the reanalysis of Vs as Ps literally. The end of Chapter 3 (Paul 2015: 92) has this important claim: “[…] the general assumption that all prepositions in Chinese have a verbal origin cannot be correct. In order for V–to–P reanalysis to apply, the category P and instantiations of it must exist beforehand, i.e. reanalysis cannot create new grammatical categories that did not exist before.” Indeed, much evidence was given in Chapter 3 to show that prepositions were found in the earliest
attested documents. However, for postpositions derived from nouns or verbs, there is no discussion on whether postpositions existed in earlier documents. Postpositions actually came into existence relatively late: “‘N-to-postposition’ reanalysis and ‘V-to-postposition’ reanalysis proceeded independently and at different stages in the history of Chinese, ‘V-to-postposition’ reanalysis being attested earlier (4th c. BC) than ‘N-to-postposition’ reanalysis (1st c. BC).” (Paul 2015: 106). Then, given the absence of earlier documents attesting the independent existence of postpositions, is it possible to claim that even these cases with postpositions allegedly derived from verbs are actually not true postpositions? The answer might be a positive one.

Since it is plausible to analyze postpositions derived from nouns as nominal clitics, it may be worth considering that the said ‘V-to-postposition’ change actually only involves a morphological change of an independent morpheme to a bound morpheme, without changes in parts of speech: lái and qǐ are bound morphemes attached to the preceding noun phrase (the subject of the verb lái/qǐ), and yǐ is bound with the following localizer. Then, we can maintain the author’s claim that new grammatical categories that did not exist before should not be created. It also follows that such so-called PostPs can occur in argument and prenominal modifier positions, because these are clausal structures. Nor would we need to ask why the yǐ + localizer expressions can seemingly have a null argument: yǐqián/yǐhòu ‘before/after’ = ‘before/after the time’, and can function as a prenominal modifiers: yǐqián/yǐhòu de shìqí = ‘events that precede/follow’. (Paul 2015: 97 analyzes yǐqián and yǐhòu as adverbs ‘before’ and ‘afterwards’, respectively, when they occur on their own).

### 3.3.3 Internal structure of PPs

To account for the distributional properties of PPs and the seeming possibility of PPs within PPs in what Paul calls Circumpositional Phrases (CircPs), the following main claims are made (Paul 2015: 136): “In the case of spatial location, it is the preposition that indicates Path and we thus obtain the structure \[ [\text{prep} \text{prep} \text{postp}] \] as in \([\text{prep} \text{from}\text{table}] \text{postp} \] ‘from the table’”. By contrast, in the case of temporal location, Path is expressed by the postposition, thus leading to \([\text{postp} \text{prep} \text{prep}] \text{postp} \] as the structure for \([\text{postp} \text{from}\text{tomorrow}] \text{postp} \] ‘from tomorrow on’. Given that zài ‘at’ as functional preposition is special among prepositions, it always heads the CircP it occurs in: \([\text{prep} \text{zài} \text{postp}] \text{postp} \], irrespective of the type of location involved.” Therefore, according to the author “This asymmetry between spatial and temporal CircPs with respect to the categorial realization of Path vs Place (as preposition or postposition) is an additional argument against the nominal analysis of postpositions, because it makes it impossible to systematically equate Place with nouns (and Path with prepositions) as a last resort to rescue the analysis of postpositions as a subclass of nouns.” (Paul 2015: 136).

However, it is doubtful that the distinction is between spatial location and temporal location, or prepositions vs postpositions. For instance, we can have the cóng phrase for spatial location and temporal expressions in a structure similar to the one in \([\text{postp} \text{prep} \text{from tomorrow}] \text{postp} \] ‘from this place/this time on’. Other examples are \([\text{postp} \text{prep} \text{from}\text{next house} \text{week}] \text{postp} \] ‘from the next house/week on’. The possibility of qǐ with these expressions is not surprising if qǐ is a verb (even though it is a bound morpheme in modern Chinese) modified by the adjunct cóng ‘from’ phrase.

The same non-distinction of spatial vs. temporal phrases (and related prepositions vs. postpositions) applies to \text{from...to} \text{expressions} \text{discussed} \text{in} \text{Chapter} 4.4.3, \text{analyzed} \text{by} Paul (2015: 134–135) as PPs with another PP in the specifier position:
4 Conclusion
The book is rich in synchronic and diachronic data, careful in reviewing of literature. It clearly presents its perspectives in a well-organized manner, with assumptions and mechanisms spelled out in detail. Its discussions are extensive and thought-provoking, which can inspire readers to raise more questions and explore relevant issues more deeply and widely, as I hope to have shown in the above more detailed review of the chapters on PPs. This book will be highly rewarding to read from the first page to the last!

Abbreviations
BA = head preceding the object in the bā-construction, CL = classifier, DUR = durative aspect, PERF = perfective aspect, PL = plural (e.g. 3PL = 3rd person plural), SG = singular, SUB = subordinator.
PP = adpositional phrase, PREP = prepositional phrase, POSTP = postpositional phrase.

Competing Interests
The author declares that she has no competing interests.

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