Adverbial adjuncts in Late Archaic Chinese

The distribution of adverbial adjuncts in Late Archaic Chinese (LAC) demonstrates similarities and differences with that in modern Mandarin. Aspecto-temporal, comitative, epistemic, evaluative, iterative, reciprocal, sequential, subject-oriented and temporal adverbials in LAC are restricted to preverbal positions; duration and frequency adverbials in LAC are attested in both preverbal and postverbal positions. Nevertheless, degree, instrumental, locative and source adverbials only appear preverbally. By means of scrutinising the clausal positioning of preverbal adverbial adjuncts and their relative sequence with subject, negation and modal verbs, I propound a hierarchy of adverbials and medial elements in the left periphery and sentence-internal domain.

Key words: Late Archaic Chinese, adverbial adjuncts, distribution, hierarchy
Диспетчирование наречных адъюнктов в позднем древнекитайском языке демонстрирует сходства и различия с таковым в современном китайском. Видовременные, комитативные, эпистемические, оценочные, итеративные, рекипрокальные, последовательные, субъектно-ориентированные и временные наречия в позднем древнекитайском связаны с предглагольными позициями; наречия длительности и частоты представлены как пред-, так и с постглагольными позициями. Тем не менее, наречия степени, инструментальные, локативные, а также наречия начальной точки в позднем древнекитайском появляются только предглагольно. На основании детального исследования расположения предглагольных наречных адъюнктов в клаузе, их расположения по отношению к подлежащими, отрицательным и модальным глаголам я предлагаю иерархию наречий и медиальных элементов на левой периферии и внутри предложения.

Ключевые слова: поздний древнекитайский, наречные адъюнкты, дистрибуция, иерархия


1. Introduction

Based on syntactic criteria, the Chinese language can be divided into four major chronological stages: Archaic, Medieval, Modern and Contemporary. Following previous research [Wang, 1958; Zhou, 1963; Peyraube, 2003; among many others], I term Archaic Chinese in the Warring States (475–221 BC) era as Late Archaic Chinese (henceforth LAC).
As a consistent written language separate from the colloquial form of Chinese [Wu, 1980; Pulleyblank, 1995], Classical Chinese is very concise, as reflected by the limited amount of words and their modifiers [Luo, 2018; Xia, 2018] including adverbials. Nevertheless, I still attempt to investigate adverbial adjuncts in LAC, despite limited data. One reason I intend to unveil LAC is that “[t]he field of formal syntax has only recently started to develop coherent and universal theories of adverbial adjuncts, and the application of these theories to Mandarin is just beginning” [Ernst, 2014], not to mention the research concerning LAC. The other reason I focus on LAC is that Archaic Chinese exhibits robust syntactic features that are discrepant from those of the Chinese language at later stages, such as word order flexibility of prepositional phrases in LAC [He, 1982, 1989, 1992; Lu, 1982; Sun, 1991, 1996; Hsueh, 1995; Peyraube, 1996, 1997]; moreover, following LAC, there was a transitional period with multiple typological changes [Shi, 2002; Xu, 2006; Peyraube, 2008; Aldridge, 2015]. In this paper, I discuss adverbial adjuncts in LAC.

Most words in LAC, including adverbials, are monosyllabic. Adverbials in LAC are predominantly adverbs, but they can also be nouns, adjectives or prepositional phrases [Peyraube, 2008]. The most common morpheme preceding DPs in adjunct PPs is 以 yi, which I treat as a preposition heading PPs, following the traditional analysis [Wang, 1958, 1962; Zhou, 1959; Xiang et al., 1988, p. 94; Yang, He, 1992; Peyraube, 1996, 1997; Hsueh, 1997; Guo et al., 1999, p. 337; Djamouri, 2009; among many others]. Aldridge (2012) regards yi as a high applicative (in the sense of [Pylkkanen, 2002]) above VP within vP, which selects a DP argument in its specifier and moves to v, deriving a YI-DP-VP order. Her argument is that both movements of focused DPs and VPs target the outer specifier of vP, so when YI-DP is postverbal, raising of focused DPs is expected to be blocked, and that is to say, a *DP-VP-YI pattern formed by focus fronting with yi stranded in its base position should not be attested. I have postulated that a preposed element occupies a specifier position of some functional projection above vP, instead of the edge of vP, so the assumed blocking effect due to VP fronting should not exist. This prediction is indeed borne out, as proved by availability of VP-wh-yi data in LAC. The VP-DP-YI ordering also shows that VP movement targets a node above vP, rather than the specifier of vP, as the VP is higher than the fronted DP landing in some functional projection above vP. Moreover, VP-yi-wh constructions predicted by this applicative approach are never attested [Wang, 2013].

In terms of the distribution of PPs, according to Feng (2014), PPs basically appear postverbally in Archaic Chinese, yet the relative ordering between PPs and main verbs has shifted from Archaic to Medieval Chinese. From
Medieval Chinese onwards, most locational and instrumental PPs could alternatively occur preverbally.

Apart from PPs, DPs can also function as adjuncts in LAC. For instance, DPs can act as point-time expressions in LAC, as in (1).

(1)吾今則可以見矣 (孟子·滕文公上)
   Wu jin ze keyi jian yi
   I today then can see Decl
   ‘Today I can see (him) then’

This paper is divided into five sections. In Section 2 I present the distribution of adverbials in preverbal and postverbal positions. In Section 3 I focus on preverbal adverbials and propound a hierarchy among various categories of adverbials, negation and modal verbs in the CP area and sentence-internal domain. In Section 4 I investigate available theories explaining the syntax of adverbial adjuncts and postverbal adverbials in Mandarin, and argue that the prosodic approach [Feng 1996, 1997, 2000, 2003, 2009, 2012, 2015] is unable to account for adverbial adjuncts in LAC.

LAC comprises well-known texts such as the Analects and Mencius [Peyraube, 2003, 2008]. LAC data in this paper is drawn from the Chinese Text Project (https://ctext.org/) which is an open-access digital corpus including over 30,000 titles and five billion characters. LAC examples I have selected from this database cover a wide range of discourses and genres, ranging from historical narrative, political essay and philosophical prose to ethical writing, medical text and ritual record. To justify the grammaticality of specific constructions, at least one example needs to be attested in the online corpus. In terms of ungrammaticality of specific constructions, due to the limit of historical syntactic research, lack of positive evidence cannot be proved, so I resort to the fact that negative evidence is not available either.

2. Distribution of adverbials

In Mandarin there is a strong tendency towards preverbal positioning of adverbials. Nearly all adverbials in Mandarin are obligatorily preverbal [Huang, 1982; Li, 1990; Tang, 1990; among many others], except for postverbal duration, frequency, resultative and manner expressions (traditionally known as ‘descriptive complements’). Such distribution is unexpected for Mandarin as a head-initial SVO language, because SVO languages typically permit most of adverbials to occur both preverbally and postverbally, whereas only SOV languages typically forbid postverbal adverbials [Ernst, 2002, 2003, 2014].

According to my observation, the distribution of adverbial adjuncts in LAC is consistent with the attribute of typical SVO languages, namely, adverbial adjuncts in LAC can occur both preverbally and postverbally.
In LAC, resultative expressions and manner expressions (those known as ‘descriptive complements’) can appear postverbally, as shown in (2a) and (2b) respectively. As can be seen from (2b), the two sentences extracted from the same text and sharing the same meaning display opposite word orders PP-VP and VP-PP, showing that in LAC descriptive complements can precede or follow verbs.

(2) a. 鞭之見血 (管子•大匡)
   Whip 3.OBJ appear blood
   ‘(The duke) whipped him (until he) bled’

   b. 以羊易之… (孟子•梁惠王上)
   With sheep change 3.OBJ
   I not love 3.Gen cost Conj change zhi yi yang ye
   ‘Exchange it with a sheep … It is not that I cared about the cost and exchanged it with a sheep’

Nevertheless, postverbal resultative expressions and manner expressions are not discussed in this paper. Cross-linguistically, resultative expressions are sometimes treated as complements. As for postverbal manner expressions, despite evidence from selection and argument structure, they are analysed as complements due to word order and the possibility of extraction out of them [Huang, 1982; Ernst, 1994, 2014; Huang et al., 2009].

Reason adverbials in LAC only appear in preverbal positions, parallel to those in modern Mandarin, as in (3a) and (3b-c) respectively. Since reason adverbials are cross-linguistically ‘high’ adverbials, they are not discussed in this paper either.

(3) a. 夫子胡不入乎? (莊子•德充符)
   Sir(you) why not enter Q
   ‘Why do you not enter?’

   b. Ni weishenme bu jinqu?
      You why not enter
      ‘Why do you not enter?’

   c. *Ni bu jinqu weishenme?
      You not enter why
Before exploring LAC adverbials that are flexible to either precede or follow VPs, I present nine types of adverbials based on my own categorisation, which have identical distribution to their counterparts in modern Mandarin: aspecto-temporal, comitative, epistemic, evaluative, iterative, reciprocal, sequential, subject-oriented and temporal adverbials (4a–i). These adverbials are restricted to preverbal positions, parallel to their modern counterparts.

According to Meisterernst (2004, 2013), 將 jiang and 且 qie are two common examples of aspecto-temporal adverbs, and both of them locate a situation in the future. Note that apart from the aspecto-temporal adverb jiang, (4a) also contains an epistemic adverb 蓋 gai.

(4) a. 吾聞子蓋將不欲立我也 (公羊傳・哀公六年)
Wu wen zi gai jiang bu yu
I hear you probably FUT not want
li wo ye
inaugurate me Decl
‘I heard that you probably would not want to inaugurate me’

b. 孔子與之坐而問焉 (論語・憲問)
Kongzi yu zhi zuo er wen yan
Confucius with 3.OBJ sit Conj ask Decl
‘Confucius sat with him and asked’

c. 能凝之，則必能並之矣 (荀子・議兵)
Neng ning zhi ze bi neng
can unite 3.OBJ then definitely can
bing zhi yi
annex 3.OBJ Decl
‘(If one) can unite it, then can definitely annex it’

d. 夫子循循然善誘人 (論語・子罕)
Fuzi xunxunran shan you ren
Confucius convincingly be.good.at guide person
‘Confucius is convincingly good at guiding people’

e. 秦師又至 (左傳・文公二年)
Qin shi you zhi
Qin army again arrive
‘(If) Qin’s army arrives again’

f. 道不同，不相為謀 (論語・衛靈公)
Dao bu tong, bu xiang wei mo
approach not same not mutually make plan
‘(Those whose) approaches are not the same cannot make plans for each other’
(4) g. 先行其言，而後從之 (論語・為政)
Xian xing qi yan, er hou cong zhi
‘(Gentlemen) fulfil their words first, and then follow them’

h. 夫子喟然歎曰 (論語・先進)
Fuzi kuiran tan yue
‘Confucius sentimentally sighed and said’

i. 吾今則可以見矣 (孟子・滕文公上)
Wu jin ze keyi jian yi
‘Today I can see (him) then’

Additionally, duration and frequency adverbials in LAC are also analogous to their counterparts in modern Mandarin in respect of distribution. However, different from the above-mentioned nine types of adverbials that are restricted to preverbal positions, duration and frequency adverbials appear in both preverbal (5a, b) and postverbal positions (6a, b).

(5) a. 三日不食 (孟子・滕文公下)
San ri bu shi
‘(He) did not eat for three days’

b. 季文子三思而後行 (論語・公冶長)
Jiwenzi san si er hou xing
‘Mr Ji thinks thrice and then acts’

(6) a. 余不食三日矣 (國語・吳語)
Yu bu shi san ri yi
‘I have not eaten for three days’

b. 鲍叔祓而浴之三 (管子・小匡)
Baoshu fu er yu zhi san
‘Baoshu held ceremonies and (let) him take a bath thrice’

I suggest that degree, instrumental, locative and source adverbials in LAC, however, are different from their counterparts in modern Mandarin, as the latter are restricted to preverbal positions. According to data I have collected from the LAC corpus, adverbial adjuncts indicating degree,
Instrument, location and source can be found in both preverbal and postverbal positions.

Common degree adverbials in LAC are 极 ji ‘extremely’ and 甚 shen ‘very’, and they can occur in front of predicative adjectives, as in (7a, b).

(7) a. 楽極和，禮極順 (禮記·祭義)
Yue ji he, li ji shun
music extremely harmonious etiquette extremely smooth
‘Music is very harmonious; etiquette is very smooth’

b. 吾甚恐 (孟子·梁惠王下)
Wu shen kong
I very scared
‘I am very scared’

Alternatively, degree adverbials ji and shen can follow predicative adjectives, as in (8a, b).

(8) a. 峻極于天 (禮記·中庸)
Jun ji yu tian
tall very as sky
‘(lIt is) very tall, like the sky’

b. 丙怒甚，不肯來 (韓非子·內儲說上)
Bing nu shen, bu ken lai
Bing furious very not willing come
‘Bing was very furious and not willing to come’

Instrumental adverbial adjuncts in LAC are predominantly PPs headed by the preposition 以 yi ‘with’. Yi-DP can either precede or follow the same group of main verbs, as shown in (9a, b), (10a, b) and (11a, b).

(9) a. 弓以招士 (左傳·昭公二十年)
Gong yi t i zhao shi
bow with summon official
‘(he) summoned officials with a bow’

b. 招虞人以弓 (ibid)
Zhao yuren yi gong
summon ranger with bow
‘(he) summoned with a bow’

(10) a. 將以戈擊之 (左傳·昭公二十五年)
Jiang yi ge ji zhi
Fut with spear strike 3.OBJ
‘(He) will strike him with a spear’
(10) b. 武子擊之以杖 (韓非子·外儲說下)
   Wuzi ji zhi yi zhang
   ‘Wuzi struck him with a cane’

(11) a. 君子不以其所以養人者害人 (孟子·梁惠王上)
   Junzi bu yi qi suo yi yang ren zhe hai ren
   ‘Gentlemen do not harm people using that with which they nurture people’

b. 不害之以實 (晏子·景公問明王之教民何若晏子對以先行義)
   Bu hai zhi yi shi
   ‘(One) do not harm them with penalties’

It is worth mentioning that when yi introduces a non-interrogative DP, there are some instances where this non-wh-DP undergoes fronting to a position preceding the preposition, generating a DP-yi-VP surface order, as in (9a), but such movement is not obligatory, as in (9b), (10) and (11). When yi takes a wh-DP, this wh-complement undergoes obligatory movement, landing in a site before the head position. As can be seen from (12a) and (12b), such obligatory wh-preposing takes place in both instances involving preverbal and postverbal wh-PPs.

(12) a. 何以報我? (國語·晉語四)
   He yi t i bao wo?
   ‘What with (will you) requite me?’

b. 救饑何以? (ibid)
   Jiu ji he yi t i?
   ‘What with to solve the famine?’

Locative PPs are predominantly postverbal in Archaic Chinese [Peyraube, 1996], but they can also precede VPs. The two clauses in Example (13) share parallel meanings and contain the identical PP ‘in wild fields’, and they are extracted from the same source, yet these two clauses display opposite word sequences PP-VP and VP-PP. Similarly, another locative PP yu ci in (14)

---

1 The translation of shi into ‘penalty’ is proposed by Liu (2015) and Li and Yan (1996, p. 186).
also displays flexible distribution and occupies either a preverbal or postverbal position (14a, b). It is notable that (13) involves PP inversion between the head preposition and its complement, which is a robust aspect of LAC [He, 1982, 1989, 1992; Lu, 1982; Sun, 1991, 1996; Hsueh, 1995; Peyraube, 1996, 1997].

(13) 野于飲食…渝食于野 (墨子· 非樂上)
Ye₁ yu звучь yin shi ... yu shi yu ye
Wild.field at drink eat ... abuse food at wild.field
‘(They) ate at wild fields ... abused food at wild fields’

(14) a. 吾見子于此止矣 (國語· 吳語)
Wu jian zi yu ci zhi yi
I see you at here cease Decl
‘Our meeting ceases here’

b. 必死于此 (國語· 晉語四)
Bi si yu ci
definitely die at here
‘(I will) definitely die here’

Analogous to other adjuncts mentioned previously, source adverbials also demonstrate flexible distribution. In (15), PPs headed by the same preposition 於 yu can occupy alocation preceding or following the same verb 取 qu.

(15) a. 於此取之 (山海經· 海外西經)
Yu ci qu zhi
from this take 3.OBJ
‘Take it from this’

b. 亦乃取於是者也 (莊子· 知北遊)
Yi nai qu yu shi zheye
also be take from this Decl
‘(It) is also taken from this’

To summarise, I suggest that LAC displays similarities and differences with modern Mandarin regarding the distribution of adverbial adjuncts. Aspecto-temporal, comitative, epistemic, evaluative, iterative, reciprocal, sequential, subject-oriented and temporal adverbials in LAC are constrained in preverbal positions, parallel to their counterparts in modern Mandarin; duration and frequency adverbials in LAC are free to occur preverbally or postverbally, which is also an attribute of their counterparts in Mandarin. Other adverbial adjuncts in LAC, however, are distinct from their modern counterparts that are confined to preverbal positions. To be more specific, degree, instrumental, locative and source adverbials are attested in both preverbal and postverbal locations in the LAC corpus.
3. Hierarchy of preverbal adverbials

In this section I investigate the hierarchy of preverbal adverbial adjuncts in LAC. Although adverbial adjuncts indicating degree, instrument, location and source are attested in both preverbal and postverbal positions, an overwhelming majority of adverbial DPs and PPs occur in front of VPs. For the sake of more available data, I limit my discussion within the domain above VP.

According to Ernst (2002, p. 143), adverbials can be divided into three categories based on scope:
1) participant adjuncts that have no scope requirements;
2) predicational adjuncts that have strict scope requirements; and
3) functional adjuncts that have loose scope requirements.

Ernst (2014) also propounds a relative order among cases of preverbal predicational adverbials in Mandarin (16) and provides examples to justify this sequence (17)–(19):

(16) Discourse-oriented > Evaluative > Epistemic > Subject-oriented > Manner/degree

(17) Zhangsan (dagai) hui hen congming de
Zhangsan probably will very intelligent DE
(*dagai) anpai shiqing.
probably arrange matter
‘Zhangsan probably will arrange the matter intelligently.’

(18) Lisi (buxing) yiding (*buxing) yao
Lisi unfortunately definitely unfortunately will
liuzai xuexiao gongzuo, buneng huijia.
stay.in school work can’t go.home
‘Lisi unfortunately must stay at school and work instead of going home.’

(19) Wangwu (hen bulimao de) dasheng
Wangwu very impolite DE loud
(*hen bulimao de) baoyuan.
very impolite DE complain
‘Wangwu impolitely complained loudly.’

(From [Ernst, 2014, p. 52–53])

With regard to preverbal adverbial adjuncts in LAC, they also form a hierarchy according to their clausal positions, which I claim is as follows based on available data:
Following Ernst’s (2002, 2014) research on a range of languages, including Mandarin, I assume that the cross-linguistic fact of discourse-oriented adverbials preceding evaluative adverbials applies to LAC as well. Although my presumption cannot be supported by evidence extracted from the corpus, no counterexample has been attested either. The statement of discourse-oriented adverbs being lower than TP is justified by one and only one interrogative sentence where the adverb intervenes between a pronominal DP subject and a wh-DP predicate (21).

(21) 是誠何心哉? (孟子·梁惠王上)
    Shi  cheng  he  xin  zai?
    this  exactly  what  mentality  Q
    ‘What mentality exactly (is) this?’

To justify the proposed hierarchy, I start with adverbials expressing time point, which is the only type of adjuncts in LAC appearing in the left periphery above TP. In Example (22a), a DP 今 jin ‘today’ indicating time point precedes the subject 吾 wu ‘I’. Apart from the CP area, temporal adverbials are also found sentence-internally, as in (22b) that is from the same source as (22a). Due to lack of enough data, the exact location of temporal adverbials in the sentence-internal domain cannot be pinpointed. In (22c), though jin is in front of an evaluative adverb 誠 cheng ‘indeed’, there is lack of a subject, so whether jin is in the CP or sentence-internal domain cannot be decided, and it is unreasonable to presume a TP > Time > Evaluative order.

(22) a. 今吾尚病 (孟子·滕文公上)
    Jin  wu  shang  bing
    today  I  still  ill
    ‘Today I am still ill’

b. 吾今則可以見矣 (ibid)
    Wu  jin  ze  keyi  jian  yi
    I  today  then  can  see
    ‘Today I can see (him) then’

c. 今誠為文也 (韓非子·外儲說右上)
    Jin  cheng  weiwen  ye
    today  indeed  contribute
    ‘Today (they have) indeed contributed’
Evaluative adverbs intervene between TP and epistemics. (23a) shows that an evaluative adverb is lower than the subject, and (23b) shows that it is higher than an epistemic ‘definitely’. It is worth mentioning that the morpheme 詹 cheng functions as a discourse-oriented adverb ‘exactly’ when preceding a wh-DP predicate (21), yet the same morpheme is interpreted as an evaluative adverb ‘indeed’ in a pre-verbal context (see (22c) and (23b)).

(23) a. 是誠在我 (孟子・滕文公上)
   Shi  cheng  zai  wo
   this indeed rely.on me
   ‘This indeed relies on me’

   b. 秦王誠必欲伐齊乎? (戰國策・韓策三)
   Qin  wang  cheng  bi  xu  fa  Qi  hu?
   Qin king indeed definitely want attack Qi q
   ‘Does the King of Qin indeed definitely want to attack Qi?’

In terms of epistemics, as speaker-oriented adverbs, they are located higher than ‘will’ in Mandarin, because adverbials taking wider scope precede those taking narrower scope [Ernst, 2014].

(24) Zhangsan {yiding/dagai/haoxiang} hui ying
   Zhangsan definitely/probably/apparently will win
   zhe-chang bisai.
   this-CL game
   ‘Zhangsan will definitely/probably/apparently win this game.’
   (From [Ernst, 2014, p. 58 ])

Nonetheless, in LAC epistemics and the aspecto-temporal adverb 將 jiang ‘will’ demonstrate flexible relative ordering, and both bi jiang (25a) and jiang bi (25b) constructions are attested.

(25) a. 故必將撞大鐘 (荀子・富國)
   Gu  bi  jiang  zhuang  da  zhong
   so definitely Fut strike big bell
   ‘So (they) will definitely strike big bells’

   b. 將必求之 (國語・周語中)
   Jiang  bi  qiu  zhi
   Fut definitely seek 3.OBJ
   ‘(I) will definitely seek it’

The next category in the hierarchy is degree adverbials. A degree adverb may follow the aspecto-temporal adverb jiang (26a) or epistemic bi (26b), justifying their relative ordering as proposed in (20). Note that 皆 jie
‘all’ in (26b) is a subject quantifier that only quantifies an NP to its left [Harbsmeier, 1981; Aldridge, 2013].

(26) a. 蓋將甚敬而不急 (莊子·人間世)
    Gai jiang shen jing er bu ji
    ‘(They) probably will respect (me) very much but not rush’

    b. 必皆非之 (墨子·尚同上)
    Bi jie fei zhi
    ‘(They) definitely all deny it’

The adjuncts following degree adverbials are subject-oriented ones. In Mandarin, subject-oriented adverbials are generally in the form of AP-de, and they assign some quality to the subject, either being an evaluation of the subject in agent-oriented expressions or a representation of the subject’s mental state in mental-attitude expressions. Under both circumstances, subjects can control the event, or at least refrain it from being performed [Ernst 2002, 2014]. In LAC, subject-oriented adverbials are generally in the form of AP-ran. In (27), xinxinran describes the mental status of the subject, i.e. being pleased.

(27) 舉欣欣然有喜色而相告曰 (孟子·梁惠王下)
    Ju xinxinran you xi se er xiang
gao yue
tell say
    ‘(They) all joyfully had happy expressions and told each other’

    In the hierarchy, what is below a subject-oriented adverbial may be a duration or manner adverb, but the relative ordering between duration and manner adjuncts cannot be decided due to lack of data. In (28a), the adverb xinran (= xinxinran in (27)) describing the subject’s mental status precedes a DP adverbial indicating duration, and in (28b), the same subject-oriented adverb precedes a manner adverb 大 da ‘loudly’, yet no examples are attested to demonstrate the relative order between duration and manner adjuncts.

(28) a. 欣然七日不食 (淮南子·脩務訓)
    Xinran qi ri bu shi
    joyfully 7 day not eat
    ‘(He) joyfully did not eat for seven days’
(28) b. 王欣然大笑曰 (韓詩外傳 • 卷十)
   Wang xiran da xiao yue
   king joyfully loudly laugh say
   ‘The king joyfully laughed loudly and said’

   Regarding negatives, they intervene between duration/manner and
sequential adverbials in the hierarchy. As can be seen from (28a) (and (5a)),
the negator *bu* is preceded by the duration DP. (29) shows that negation
is followed by an adverb *xian* expressing sequence.

(29) 主人不問，客不先舉 (禮記 • 曲禮上)
   Zhuren bu wen, ke bu xian ju
   host not ask guest not first start
   ‘(If) hosts do not ask, guests (should) not start first’

   Following sequential adverbs, the next adverbial category is either com-
itive or instrument adverbials, but their relative order cannot be pinpoint-
ed. In LAC, it is common for comitative and instrument adverbials to occu-
py preverbal positions after negation, as in (30a) and (30b). Furthermore,
there are data indicating that comitative/instrumental adverbials may follow
sequential adverbs (31a, b). Since sequential adverbs are lower than nega-
tion (29), it is justifiable to suggest an order of Neg-Sequence-Comitative/
Instrument.

(30) a. 孟子獨不與歡言 (孟子 • 離婁下)
   Mengzi du bu yu Huan yan
   Mencius alone not with Huan converse
   ‘Mencius alone did not converse with Huan (me)’

   b. 君王不以鞭箠使之 (國語 • 吳語)
   Junwang bu yi bian chuishi zhi
   Your.Majesty not with whip enslave OBJ
   ‘Your Majesty did not enslave them with a whip’

(31) a. 使楚人先與吳人戰 (左傳 • 定公五年)
   Shi Chu ren xian yu Wu ren zhan
   make Chu person first with Wu person fight
   ‘Make Chu people fight with Wu people first’

   b. 然必先以規矩為度 (韓非子 • 有度)
   Ran bi xian yi gui ju wei du
   Conj definitely first with compasses ruler do measurement
   ‘But (he) definitely makes measurements with compasses and
   rulers first’
The fact that comitative and instrumental adjuncts both intervene between negation (or more specifically, sequence adverbs) and VP are not unexpected, as they both take the form of P-DP. As for the fact that their relative ordering cannot be pinpointed, it is consistent with Ernst’s (2014) statement: comitative and instrumental PPs, as participant adjuncts indicating roles for additional participants in an event, cross-linguistically have greater freedom in a hierarchy determining rigid linear ordering of adverbials [Ernst, 2014].

The lowest adjuncts in the hierarchy are reciprocal adverbs that follow comitative/instrument adverbials, as in (32a, b) where xiang ‘mutually’ is to the right of a comitative PP or an instrument PP.

(32) a. 安與之相靡 (莊子・知北遊)

   An yu zhi xiang mi
   peacefully with 3.OBJ mutually comply
   ‘(People) mutually comply with it in a peaceful manner’

   b. 皆以水火毒藥相虧害 (墨子・尚同上)

   Jie yi shui huo duyao xiang kuihai
   all with water fire poison mutually harm
   ‘(They) all harm each other with water, fire and poison’

I would like to point out that what immediately follow negatives in the hierarchy are actually modal verbs, though they are not adjuncts. 可以 keyi (33a) and 能 neng (33b) are common modal verbs in LAC, and they still exist in modern Mandarin, keeping their original meanings. In Mandarin, keyi is ‘be permitted to’ while neng is ‘be able to’ [Lin, Tang, 1995; Lin, 2011]. (33b) contains a preposed pronoun zhi that raises from its base position within VP and lands in a preverbal position between negation and the modal verb. Pronoun fronting in the context of negation is prevalent, as negators usually ‘trigger’ raising of pronouns in LAC. However, there are exceptions: (33a) involves the same pronoun zhi, yet it stays in its base position, hence the canonical order of Neg-Mod-V-Pron. For pronoun fronting to negation in LAC, its nature, motivation and disappearance in the modern period, as well as the fact that a pronoun in an identical construction undergoes fronting in some cases but does not in other cases, are beyond the research scope of this paper.

(33) a. 吾不可以僭之 (左傳・哀公五年)

   Wu bu keyi jian zhi
   I not can betray 3.OBJ
   ‘I cannot betray him’
(33) b. 未之能行 (論語・公冶長)
    wei zhi neng xing t_i
    not,yet 3.OBJ can execute
    ‘(He) could not execute it yet’

Data demonstrates that modal verbs are located higher than sequential adverbs (34), and hence comitative/instrument PPs (35). In Example (35a) and (35b), the modal verb *neng* follows negators *bu* and *wei* and precedes PPs indicating comitative and instrument respectively, so it is safe to say that modal verbs intervene between negation and comitative/instrument adjuncts. Since (35b) is a negative environment, the preposition *zhi* raises out of its base position following a preposition and lands in a position outside the PP. Again, in this paper I do not account for the fact that (35a) does not involve pronoun fronting, though it shares the same pronoun and same Neg-Mod-PP-VP canonical order with (35b).

(34) a. 可以先防 (黃帝內經・刺法論)
    Keyi xian fang
can first prevent
    ‘(We) can prevent (it) first’

b. 有能先登者 (韓非子・內儲說上)
    You neng xian deng zhe
    there.be can first mount the.one.who
    ‘(If) there are those who can mount first’

(35) a. 而王公不能與之爭名 (荀子・儒效)
    Er wanggong bu neng yu zhi
    Conj the.nobility not can with 3.OBJ
    zheng ming
    compete fame
    ‘Yet the nobility cannot compete with them for fame’

b. 未之能以出 (公羊傳・昭公二十五年)
    wei zhi neng yi t_i chu
    not,yet 3.OBJ can with present
    ‘(I) have not been able to present (sacrifices) with it’

So far, the hierarchy proposed in (20) shows that speaker-oriented adjuncts, including discourse-oriented, evaluative and epistemic adverbs, precede negators and hence modals in LAC, as in (36a–c). This observation is in accord with Ernst’s (2008, 2009, 2014) argument based on Mandarin that all types of speaker-oriented adverbials must precede negators and modals, as they are positive polarity items that cannot be included in the scope of negation or modality.
(36) a. 幸而不亡 (左傳•昭公十八年)
   Xinger bu wang
   fortunately not perish
   ‘(Our country) fortunately did not perish’

b. 則誠不善矣 (晏子•景公問治國之患晏子對以佞人讒夫在君側)
   Ze cheng bu shan yi
   then indeed not kind
   ‘Then (they) are indeed not kind’

c. 吾王庶幾無疾病與 (孟子•梁惠王下)
   Wu wang shuji wu jibing yu
   my lord probably not have disease
   ‘My Lord probably does not have diseases’

It is noteworthy that in LAC when more than one adverbial of the same function co-occur, they follow specific orders. For instance, frequency adverbial DPs 日 ri ‘daily’ and 三 san ‘thrice’ co-exist in the same preverbal domain of the same sentence, and ri precedes san, yet the *san-ri pattern (without changing the original meaning) is never attested.

(37) 吾日三省吾身 (論語•學而)
   Wu ri san xing wu shen
   I daily thrice examine
   ‘I daily examine myself thrice’

In Mandarin, if ‘daily’ and ‘three times’ co-occur, ‘daily’ also needs to precede ‘three times’, but the former is preverbal and the latter is postverbal, regardless of the verb’s transitivity.

(38) a. Zhangsan meitian ku sanci.
   Zhangsan daily cry 3.times
   ‘Zhangsan cries three times a day.’

b. *Zhangsan meitian sanci ku.
   Zhangsan daily 3.times cry

c. Zhangsan meitian chi sanci yao.
   Zhangsan daily eat 3.times medicine
   ‘Zhangsan takes medicine three times a day.’

d. *Zhangsan meitian sanci chi yao.
   Zhangsan daily 3.times eat medicine

Similarly, when two adverbials expressing accompaniment, e.g. a comitative PP and an adverb, co-exist in the same sentence, there is a fixed order:
(39) 民欲與之偕亡 (孟子·粱惠王上)

Min yu yu zhi xie wang
people want with 3.Obj together die
‘People wish for his death, even though they should die with him’
(Lit. ‘People want to die with him together’)

This PP-Adverb order applies to comitative constructions in Mandarin as well:

(40) a. Zhangsan xiang he Lisi yiqi lai.
Zhangsan want with Lisi together come
‘Zhangsan wants to come together with Lisi.’

b. *Zhangsan xiang yiqi he Lisi lai.
Zhangsan want together with Lisi come

4. Accounts of adverbials

There are two main approaches to the syntax of adverbial adjuncts. One approach is referred to as the F-Spec theory, proposing that UG provides a universal, rigidly ordered sequence of functional heads to license adverbs, with each head licensing one narrow adverb class in its specifier. This theory is in line with the Linear Correspondence Axiom [Kayne, 1994] that forbids right-adjunction and derives alternative orders of adverbs and heads by upward movement of heads across adverbs or roll-up movement. A reversed surface order VP-PP-AdvP, therefore, can be generated from a canonical order AdvP-PP-VP via two leftward movements [Cinque, 1999, 2004, 2006]. The other approach is the semantically based adjunction theory that permits right-adjunction in some cases, unlike the F-Spec theory. This theory generally assumes that adverbials are adjoined to maximal projections, and their relative ordering and combinations are predominantly affected by the interaction between their semantics and rules of semantic composition, so when there are clashes or violations of principles, ungrammaticality arises [Ernst, 2002; Haider, 2004; Nilsen, 2004).

Ernst (2014) reviews these two main approaches and points out issues for both of them. The F-Spec theory entails exceptions to principles such as the Head Movement Constraint [Travis, 1984], duplication of licensing heads and ill-understood movement triggers; additionally, the prediction on the ordering of adverbial modifiers, along with the associated prediction of ‘transitivity’ (viz. if adverbial A precedes B and B precedes C, then A precedes C) are not borne out. As for the semantically based adjunction theory, it relies on semantic interpretation to rule out unfeasible orders, yet it fails to provide explicit semantic accounts of requirements for each adverbial
category; moreover, there is lack of precise elaboration of how particular orderings do or do not produce well-formed representations.

To account for the postverbal positioning of duration/frequency adverbials in Mandarin, Soh (1998) proposes that duration and frequency adverbials are base-generated within (shells of) lexical VPs and stay in situ, while verbs move across them to \( v \). The tree structure for (41a) involving a V-DO-Adv order is in (41b), where the specifier node of FP provides a landing site for a fronted object.

\[
\text{(41) a. } \text{Zhangsan da-le (ta) haojici (*ta).} \\
\text{Zhangsan hit-PRF s/he many.time s/he} \\
\text{‘Zhangsan hit her/him many times.’}
\]

\[
\begin{align*}
\text{b.} & \\
& \text{vP} \\
& \quad \quad \text{v} \\
& \quad \quad \quad \text{FP} \\
& \quad \quad \quad \quad \text{da}_j \quad \text{ta}_i \quad \text{F’} \\
& \quad \quad \quad \quad \quad \text{V} \\
& \quad \quad \quad \quad \quad \quad \text{duration/frequency} \\
& \quad \quad \quad \quad \quad \quad \quad \text{VP} \\
& \quad \quad \quad \quad \quad \quad \quad \quad \text{haojici} \\
& \quad \quad \quad \quad \quad \quad \quad \quad \quad \text{DP} \quad \text{V} \\
& \quad \quad \quad \quad \quad \quad \quad \quad \quad \quad \text{t}_i \quad \text{t}_j
\end{align*}
\]

\[
\text{(Adopted from [Ernst, 2014, p. 65–66])}
\]

Nonetheless, I argue that this approach cannot explain the postverbal distribution of duration/frequency adverbials, as it yields a wrong word order. For Example (41a), with the adverbial staying in situ, if the verb raised to \( v \) and the direct object occupied [Spec,FP], the perfect particle \( le \) had to land in the head of the functional project, and hence an ungrammatical construction *V-DO-le-Adv.

Feng (2000, 2003) argues that postverbal PPs in Mandarin cannot be explained by syntax or morphology; instead, their behaviours are prosodically constrained syntactic phenomena. It is difficult for a syntactic or morphological theory to account for a ban of pronouns and definite NPs in [V NP PP]. A prosodic analysis, however, can explain the ungrammaticality of VPs
taking pronouns or definite NPs in their argument positions. Pronouns and definite NPs, given their semantic antecedents in discourse, are anaphoric elements, so they are metrically invisible to prosodic operations and do not generally attract stress. Based on metrical property of stress attraction between anaphoric constituents (marked with ‘L(ight)’) and non-anaphoric constituents (marked with ‘H(eavy)’), *[V pronoun/definite-NP PP] and [V indefinite-NP PP] are represented as [V NP₇ P + NP₈] and [V *NP₈ P + NP₇] respectively. Similarly, [V + *pron + PP] and [V + [P + *(pron)] PP + NP] are represented as [V [P NP₈] PP NP] and [V [P *NP₇] PP NP] respectively. To account for the syntactic behaviours of postverbal PPs in Mandarin, Feng (2003) postulates the following:

(42) Government-based Nuclear Stress Rule (G-NSR)
Given two sister nodes C1 and C2, if C1 and C2 are selectionally ordered, the one lower in selectional ordering and containing an element governed by the selector is more prominent.

(43) Invisibility Condition
In Chinese, anaphoric elements are prosodically invisible constituents that have no bearing on prosodic analysis.

(44) Structural Removing Condition (SRC)
Remove all the prosodically invisible elements (with their syntactic branches) from the tree structure, when NSR applies.

(From [Feng, 2003, p. 1091–1094])

Nonetheless, I argue that this prosodic approach for postverbal PPs in Mandarin cannot be employed to account for the syntax of preverbal or postverbal adverbial PPs in LAC.

First, I demonstrate that the prosodic theory does not apply to postverbal PPs in LAC.

For postverbal PPs in Mandarin, the prosodic analysis correctly predicts the grammaticality of [V NP₇ P + NP₈] and ungrammaticality of [V *NP₈ P + NP₇]. In LAC, the [V NP₇ P + NP₈] construction also exists, as shown in (45a) that contains an indefinite NP (NP₈) ‘people’ and a definite NP (NP₇) ‘the boundaries of territories’. Nevertheless, what the prosodic approach does not expect in modern Mandarin is a [V NP₇ P + NP₈] pattern, yet it is indeed attested in LAC, as shown in (45b) involving an indefinite NP₈ ‘etiquette’ functioning as a prepositional complement. (45a) and (45b) are examples involving instrumental adverbials, while (46a) and (46b) contain locative PPs with unstressed/stressed prepositional complements respectively, and both verbal complements in (46) a prosodically stressable. In a word, LAC allows both [V NP₇ P + NP₈] [V NP₇ P + NP₈] constructions, yet the latter is unexpected for the prosodic account targeting Mandarin.
(45) a. 域民不以封疆之界 (孟子·公孙丑下)
Yu min bu yi fengjiang zhi jie
restrict people not with territory GEN boundary
‘(A ruler) does not enclose people with the boundaries of territories’

b. 治民不以禮 (荀子·大略)
Zhi min bu yi li
manage people not with etiquette
‘(If one) does not manage people with etiquette’

(46) a. 盜跖死利于東陵之上 (莊子·駢拇)
Dao Zhi si li yu Dongling zhi shang
theft Zhi die for profit at Dongling GEN top
‘Zhi the theft died for profit at the top of (Mt) Dongling’

b. 渝食於野 (墨子·非樂上)
Yu shi yu ye
abuse food at wild field
‘(They) abused food at wild fields’

Moreover, the prediction concerning the ban of anaphoric constituents in complement positions preceding PPs, viz. the ungrammaticality of \( V * NP_L P + NP_H \), is not borne out in LAC. In (47a), at hird person singular pronoun zhi intervenes between a verb and a PP; similarly, in (47b), a definite DP consisting of a genitive qi and a NP zi appears in an argument position. Data in (47) validate the grammaticality of \( V NP_L P + NP_H \) in LAC.

(47) a. 吾求之於度數 (莊子·天運)
Wu qiu zhi yu dushu
I seek 3.OBJ from principle
‘I sought it from principles’

b. 隊其子於井 (墨子·七患)
Zhui qi zi yu jing
drop GEN son to well
‘(If she) drops her son into a well’

It is worth pointing out that in (47) the propositional complements are indefinite, non-anaphoric constituents, yet in other examples anaphoric elements can appear in postverbal PPs, as in (48a) and (48b-c) that contain a pronoun and definite DPs respectively. Taking both (47) and (48) into consideration, it is reasonable to state that LAC allows \( V NP_L P + NP_H \) constructions, which is unexpected for the prosodic analysis targeting Mandarin.
Second, in terms of preverbal PPs in LAC, they are not prosodically constrained either.

According to the prosodic theory accounting for PPs in Mandarin, anaphoric constituents are prosodically invisible, so these light forms are rejected from argument positions while requested inside locative PPs, namely, object NPs cannot be metrically lighter than locative NPs [Feng, 2003].

In LAC, however, when anaphoric constituents act as prepositional complements within PPs, argument positions do not have to be taken by non-anaphoric elements. That is to say, both \([P + \text{NP}_L \text{V NP}_H]\) and \([P + \text{NP}_L \text{V NP}_L]\) are felicitous, and argument DPs can, but do not have to, be heavier than DPs within PPs. Data show that DPs functioning as verbal complements are permitted to be heavier than DPs functioning as prepositional complements (49), or prosodically equally-weighted with them (50). In (49), a pronoun that is prosodically light acts as a propositional complement, while the argument position is occupied by a stressable indefinite DP that is heavier than the PP.

In (50a), a definite DP is headed by a determiner \(ci\) and it acts as a prepositional complement, but the following argument is also a DP headed by the same determiner, which means object DPs do not have to be heavier than PPs and they can both be located in unstressed positions. In (50b), both VP- and PP-internal positions are non-stressable: the former is occupied by a definite DP and the latter is occupied by a pronoun.

(49) 君子以此坊民 (禮記 · 坊記)
Junzi yi ci fang min
gentleman with this protect people
‘Gentlemen protect people with this’
(50) a. 予將以此道覺此民也 (孟子·萬章下)
Yu jiang yi ci dao jue ci min ye
'I will enlighten these people with these principles'

b. 不以其道得之 (論語·里仁)
Bu yi qi dao de zhi
'(If one) does not obtain them with principles'

Regarding the statement that argument DPs can, but do not have to, be heavier than DPs within PPs, apart from \([P + \text{NP}_L \text{V NP}_L/H]\) constructions, there is another potential pattern, viz. \([P + \text{NP}_H \text{V NP}_H]\), and it is indeed attested. In (51), both DPs functioning as a prepositional complement and verbal complement are indefinite, hence metrically heavy forms. Their coexistence in the same sentence indicates that both DPs in VP and PP can carry stress and thus be prosodically equally-weighted.

(51) 猶以一杯水救一車薪之火也
You yi yi bei shui jiu yi che xin zhi huo ye
'It is like fighting a fire of a cart-full of firewood with a glass of water'

What is even more surprising is that in LAC DPs acting as verbal complements can be lighter than those as prepositional complements, exactly opposite to Mandarin. That is to say, LAC permits \([P + \text{NP}_H \text{V NP}_L]\) structures. In (52), an object DP occupies an unstressed position while a PP occupies a stressed position. Note that in (52) the prepositional complement raises from its base position following the preposition to a landing site preceding its head.

(52) 信以成之 (論語·衛靈公)
Xin yi t i cheng zhi
'(Gentlemen) accomplish it with integrity'

5. Conclusion

In this paper I demonstrate that the distribution of adverbial adjuncts LAC is not identical to that in modern Mandarin. Aspecto-temporal, comitative, epistemic, evaluative, iterative, reciprocal, sequential, subject-oriented and
Temporal adverbials in LAC are only attested in preverbal positions, similar to their counterparts in modern Mandarin; duration and frequency adverbials in LAC are attested in both preverbal and postverbal positions, parallel to their counterparts in Mandarin. However, degree, instrumental, locative and source adverbials in LAC are different from their modern counterparts that are restricted to preverbal positions: these four categories of adverbials can be found in both preverbal and postverbal locations in the LAC corpus. I also scrutinise the clausal positioning of preverbal adverbial adjuncts and suggest their relative ordering with subject, negation and modal verbs in the CP area and medial domain. The specific hierarchy I propose is in (53) (= (20)). Note that due to lack of data in the LAC corpus, the relative orders between aspecto-temporal and epistemic adjuncts and between comitative and instrument adjuncts cannot be identified.

(53) Time > Subject > Discourse-oriented > Evaluative > 
Aspecto-temporal/Epistemic > Degree > Subject-oriented > 
Duration/Manner > Negation > Modal verb > Sequence > 
Comitative/Instrument > Reciprocal

As for the theory explaining adverbial adjuncts, though Feng’s (2003) prosodic approach accounts for adverbials in modern Mandarin, it cannot be successfully applied to LAC. Therefore, in future research I intend to posit a theory to account for the distribution and hierarchy of adverbial adjuncts in LAC.

As identified by Rissanen (1989), there are three main problems associated with using diachronic corpora:
1) ‘the philologist’s dilemma’ that the employment of corpora may replace in-depth knowledge of language history which needs to be obtained from the study of original texts in their contexts;
2) ‘God’s truth fallacy’ that corpora may be used to generate representative conclusions of entire language periods, neglecting the limitations language speakers of the contemporary period are not intuitively aware of;
3) ‘the mystery of vanishing reliability’ that the more variables used in sampling and coding corpora in respect of periods, genres, age, gender etc., the more difficult it is to fully represent each one and achieve statistical reliability.

There is no denying the fact that my research on LAC is potentially subject to all these three risks.

Apart from addressing the above-mentioned issues, future research could answer three questions raised in Feng (2014):
1) timing problem of why most new prepositions appear during the Han Dynasty following the LAC period [He, 1984];
2) position problem of why new prepositions are generated in preverbal positions;
3) category problem of why new prepositions mostly (if not exclusively) precede verbs.

Moreover, pronoun fronting in the context of negation in LAC, including its nature, motivation and disappearance in modern Mandarin, as well as existence/nonexistence in identical environments, is also worth investigating.

References


Li, Ying Yan, 1996 – Li W., Ying Yan. Yanzi Chunqiu. Taipei, 1996.


Статья поступила в редакцию 26.10.2020
The article was received on 26.10.2020

About the author / Об авторе

Aiqing Wang – PhD in Linguistics; Lecturer in Chinese at the Department of Languages, Cultures and Film, University of Liverpool, UK

Ван Айцин – преподаватель китайского языка, руководитель магистратуры китайско-английского письменного и устного перевода кафедры языков, культуры и кинематографии, Университет Ливерпуля, Великобритания

ORCID: https://orcid.org/0000-0001-7546-4959
E-mail: aiqing.wang@liverpool.ac.uk