A Syntactic Analysis of Modal \textit{bi 必}: Auxiliary Verb or Adverb?

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In this paper a syntactic analysis of the different words written with the character \textit{bi 必} in Han period Chinese is at issue with particular regard to its modal employments. The paper shows that there is conclusive evidence for an analysis of \textit{bi 必} as both an auxiliary verb and a modal adverb. Although the evidence for a verbal analysis of \textit{bi 必} is stronger, its syntactic constraints with regard to aspecto-temporal adverbs and — to a certain extent to negative markers — argue for an additional analysis of \textit{bi 必} as a modal adverb. Consequently, it is hypothesized that two different, but etymologically related words written \textit{bi 必} have to be assumed in the Han period literature according to the syntactic constraints \textit{bi 必} is subject to; one appears as a modal verb, employed independently or as auxiliary verb ‘must, need to’, and one appears as a modal adverb ‘certainly’.

Key words: modal auxiliary verbs, modal adverbs, \textit{bi 必}, hierarchy of adverbs, Han period Chinese

1. Introduction

In this paper a syntactic analysis of the different words written with the character \textit{bi 必} in Han period Chinese is at issue with particular regard to its modal employments. The character \textit{bi 必} can write a full verb with the meanings ‘secure, ascertain, enforce; be certain’, and, according to the approach adopted in the linguistic literature, an adverb and/or an auxiliary verb and a conjunction. Yang Shuda (1928[1959:1, 10]) categorizes \textit{bi 必} as a verb which can be employed transitively or intransitively and as an adverb, both the verb and the adverb express certainty. Dobson (1959:237) distinguishes between \textit{bi 必} as a full word ‘must’ and as a grammatical word ‘must be’ in a determinative sentence (roughly corresponding to a sentence with a nominal predicate) expressing “Emphasis or Restriction upon the Unqualified Categorical: A rhetorical rather than a material quality is given to the predication (which remains unqualified and categorical)” (1959:112). In his study of Late Han Chinese (Dobson 1964:22), he additionally discusses a preverbal \textit{bi 必} in the sense of ‘decidedly, inevitably, of a certainty,’ etc. which can be negated by \textit{wèi 未} and by \textit{bù 不}. The exact grammatical function of \textit{bi 必}
is not specified. According to Shadick (1968:755ff), bi 必 ‘necessarily, always, certainly’ belongs to the Predicate adjuncts (PA) which resemble adverbs, but are distinguished from them “because they can also modify nominals, as adjunct to a nominal predicate”. More particular, bi 必 belongs to the PA of quality which “express the degree of certainty with which a predication is made or the intrinsic inevitableness of what is said”. To the same class belong the adverbs (PAs in Shadick’s terminology) gù 固 ‘certainly, actually’; chéng 誠 ‘truly’; xìn 信 ‘indeed, truly’; shí 實 ‘actually, in fact’; yì 亦 ‘indeed, in fact’; guó 果 ‘after all, in the end’, and others. Additionally Shadick (1968:765) shows that bi 必 can function as a conjunction in a second clause, referring to “all possible occasions” in the meaning ‘necessarily, always’. Gassmann (1997:196) qualifies bi 必 as a modal verb ‘müssen (must)’ comparable to néng 能 ‘can’; equally the Thesaurus Linguae Sericae categorizes bi 必 as a (auxiliary) verb in different syntactic constellations. Unger analyses bi 必 as a ‘Modalpartikel’ (modal particle), indicating assertion mostly in future contexts, in contrast to von der Gabelentz who categorizes it as an auxiliary verb.¹ Unger argues for his analysis with the fact that quantifiers ‘Distributiva’ usually follow bi 必. As an adverb bi 必 can, according to Unger, precede a nominal predicate (1987:100), a verbal predicate (1992:42ff), and a prepositional predicate (1989:245), and it can appear in subordinate and in matrix clauses. What Unger labels as ‘Modalpartikel’ corresponds in general to what the author labels ‘modal adverb’ in accordance with Pulleyblank (1995:18) who lists bi 必 as an adverb (1995:99) and as belonging to one of those “sentence adverbs that can be used in verbless noun predicates”. In the Gǔdài Hányǔ xǔcì cídiǎn (2000:23) bi 必 is analyzed as an adverb and a conjunction. However, bi 必 can be distinguished from many other adverbs by a number of syntactic criteria, and — amongst others — by the fact that it can occur on its own without a verb following it. This short summary clearly shows the difficulties in assigning a particular syntactic status either as a modal (auxiliary) verb or as a modal adverb to bi 必.

As has already been noted in Alleton (1972:23) and in a recent discussion on Modality in English and Chinese (Li 2004:111 and elsewhere), this is a general problem in the analysis of adverbs and modal expressions in Chinese.² The following discussion

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¹ With the exception of initial and final particles all particles in Unger’s framework correspond to adverbs in the present author’s framework.

² Alleton (1972:23) states that adverbs and modal verbs mostly appear in the same position: “Dans la majorité des contextes, ainsi, le verbe modal se trouve dans la même position que l’adverbe.” But, according to her, they can be distinguished according to their capacity of forming an independent utterance “les verbes modaux sont des formes libres (susceptibles de constituer un énoncé), alors que les adverbes ne le sont pas,” although she concedes that this distinction is often difficult to obtain.
will try to solve the puzzle of the syntactic status of bi 必 in demonstrating that it clearly differs in its syntactic constraints from many other lexical items which traditionally have been analyzed as adverbs. It will show that bi 必 evidently displays syntactic constraints which argue for both its status as an auxiliary verb and its status as an adverb. Since the investigation of the syntactic hierarchy of adjuncts, including modal, aspecto-temporal and manner adverbs, in Classical and Han period Chinese is still in its infancy, results of this study have to be considered preliminary. The following discussion will focus on the syntactic constraints of bi 必, a semantic analysis of its modal values will be postponed to a separate study. The present study is only one of the first steps of an investigation into the precise syntactic and semantic constraints modal adverbs and auxiliary verbs in Classical and Han period Chinese are subjected to, an investigation which — with a few exceptions — has not been executed yet for the periods mentioned. The study is based on data predominantly taken from the Shǐjì 史記 (ca. 100 BC), the Hànhshū 漢書 (1st c. AD) and the Lùnhéng 論衡 (1st c. AD).

2. The syntactic constraints of bi 必

In order to determine the syntactic status of bi 必 the different syntactic constraints it can be subject to will be discussed in this section. It will be hypothesized that the character bi 必 actually represents a full verb, a modal auxiliary verb, and an adverb. The syntactic tests applied in order to distinguish between its function as an auxiliary verb and an adverb concern the position of bi 必 with regard to wh-words, the relative particle suǒ 所, the relative position of negative markers, and the position of bi 必 in relation to other adverbs. According to the preliminary hierarchy of adverbs established in Meisterernst (2009) on the basis of a study of aspecto-temporal adverbs in Han period Chinese, modal adverbs by default precede aspecto-temporal and manner adverbs.

First, examples for bi 必 as an independent verb will be presented and in the following the syntax of bi 必 in a subordinate position will be discussed.

2.1 Bi 必 as an independent verb

As an independent verb, bi 必 refers to a situation which is certain to happen, a notion which extends to its modal notion indicating certainty and necessity. In

4 This may provide some evidence for their analysis as belonging to the category of adverbs which Cinque (1999:11f) labels ‘higher’ (Sentence) adverbs. But a clear distinction between sentential adverbs and adverbs exclusively operating on the level of V still has to be established.
Pulleyblank (1991:34, 1995:175) *bi 必* is not glossed as a full verb, only its adverbial meanings are given.

In the first example presented *bi 必* appears as an intransitive verb with the meaning ‘secure’ following the modal verb *kě 可*.

(1) 且漢王不可必，身居項王掌握中數矣… *(Shìjiè: 92; 2622)*

Qiě Hàn wáng bù kě bi, shēn jū Xiàng wáng

furthermore Han king NEG can secure person dwell Xiang king

zhângwó zhōng shù yī

jurisdiction middle few FIN

‘Furthermore, the king of Han cannot be secured (his loyalty cannot be secured = he cannot be trusted), it has [already] been several times that he has personally been under the jurisdiction of the king Xiang, …’

In example (2) *bi 必* occurs as the main predicate, as an adjective with the meaning ‘be certain, sure’, marked by the final particle *yǐ 矣* which usually indicates a change of state situation. In this construction *bi 必* is quite frequently attested.

(2) 吾聞秦軍圍趙王鉅鹿，疾引兵渡河，楚擊其外，趙應其內，破秦軍必矣。 *(Shìjiè: 7; 305)*

Wú wén Qín jūn wéi Zhào wáng Jùlù,

I hear Qin army encircle Zhao king Julu

jí yǐn bìng dù Hé,

quick conscribe army cross river

Chú jí qì wài, Zhào yīng qì nèi, pò Qín jūn bì yǐ

Chu attack its outside Zhao react its inside destroy Qin army certain FIN

‘I have heard that Qin has encircled the king of Zhao in Julu, but if we quickly take the army and cross the river, and if Chu attacks from outside and Zhao reacts from inside, it will be certain that we will destroy the army of Qin.’

In the following example *bi 必* is employed as a transitive verb with the meaning ‘ascertain, make sure’, followed by a formally nominalized complement clause.

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5 The abbreviations for the grammatical glosses in the examples are: **CON** connector; **FIN** final particle; **FUT** future; **MOD** modality; **NEG** negator; **NEG_{asp}** aspectual negator; **NEG_{mod}** modal negator; **OBJ** object pronoun; **PREP** preposition; **PRT** particle; **REL** relativizer; **SUB** subordinator; **YI** weak transitive verb ‘take, assume’ (Meisterernst 2008b:104f).
In example (4) the syntactic analysis of 不能 is less straightforward. It obviously appears in the meaning ‘must be’ followed by a prepositional phrase, a meaning which often also seems to be adequate if 不能 is followed by a nominal predicate. Nevertheless, if 不能 precedes nominal predicates, it is analyzed as a ‘Copula of unqualified categorical predication’ in Dobson (1959:237) and in Unger (1987:100) as a particle, i.e. an adverb, of assertion, identically to its employment in a sentence with a verbal predicate, and not as a proper verb. According to Unger (1989:245) the same adverbial function has to be assumed for 不能 preceding a prepositional predicate; other adverbs which are attested in this position are the modal adverb 可能 ‘perhaps, possibly’, the quantifier 各 ‘each’ and the negative marker 不 ‘not’. The fact that the negative marker 不 negates predicative prepositional phrases argues against their analysis as being syntactically identical to noun phrases; accordingly an apparent syntactic difference exists between nominal predicates and prepositional predicates in predicative position.\(^6\) If 不能 is syntactically identical to the afore mentioned adverbs, the occurrence of the evident adverbs 可能 and 各, in the same syntactic position as 不能 could argue against the analysis of 不能 as a verb in this position. However, since these adverbs differ considerably in their syntax and their semantics, only two of them, i.e. 可能 and 不能 have in common that they can precede both nominal and verbal predicates,\(^7\) they do not necessarily have to be assumed to be syntactically identical to 不能. Accordingly, 不能 will be analyzed as a verb with the meaning ‘must be’ in this example.

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\(^6\) An analysis of prepositional phrases in predicative position is not at issue in this paper and has to be postponed to a separate study, but according to the examples presented in Unger, those with prepositional phrases apparently negated by 不 rather have to by analyzed as cases of ellipsis (with a deleted verb) than as cases of predicative prepositional phrases.

\(^7\) See Harbsmeier (1981:85) “Obviously, ge would be unthinkable in sentences with nominal predicates…”
Well, since heaven loves the yin, when sacrificing to it, this must be [performed] at the foot of a high mountain or on top of a small hill, the [place’s] name must be “Altar”…”

2.2 Modal bi 必: adverb or verb, some syntactic evidence

In this section the syntactic arguments for the classification of bi 必 as an adverb or a modal auxiliary verb will be discussed.

According to the data presented in Unger for Classical Chinese and the data discussed in this article, bi 必 evidently shows syntactic constraints which are different from most other adverbs, whether modal or aspecto-temporal. These concern in particular the position of negation markers, wh-words, in particular the wh-word hé 何, and the aspecto-temporal adverbs jiāng 將 and qié 且 which are the aspecto-temporal adverbs mostly attested in combination with bi 必 in the Han period texts under consideration. The almost exclusive restriction to these adverbs is not surprising, since both predominantly serve to locate a situation in the future, identically to bi 必 which also usually qualifies situations in the future. In the following, a few examples for bi 必 in combination with the afore mentioned syntactic elements will be presented to reveal the syntactic status of bi 必. Unfortunately, many of the criteria which have been proposed for the syntactic distinction e.g. between auxiliary verbs, adverbs and full verbs in Modern Mandarin (for a summary and evaluation of these criteria see Li 2004, particularly p.130) are not applicable to Classical and Han period Chinese.8

2.2.1 Bi 必 in combination with wh-words

As a general rule wh-words follow modal and aspecto-temporal adverbs, but precede auxiliary verbs.9 As the following examples will show, if bi 必 appears in combination with a wh-word, the wh-word always precedes bi 必. This evidently contrasts bi 必 with

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8 The main features which are not applicable to Classical and Han period Chinese — since they do not yet exist during these periods — are ‘reduplication’ and the employment of ‘aspectual suffixes’ which are both not permitted with modal auxiliary verbs (Li 2004:130) in Modern Mandarin.

9 Interrogation is listed as one of the criteria to determine the linguistic status of auxiliary verbs in Modern Mandarin, but since wh-questions and yes-no questions in Modern Mandarin differ considerably from those in Classical and Han period Chinese, the criteria established for Modern Mandarin are not necessarily applicable to earlier stages of the language.
the modal adverb *yì*, the syntactic status of which as an adverb is much more evident than that of *bì* and which is usually followed by the *wh*-word. In examples (5) to (7), *bì* is followed by a noun phrase and not by a verb in which case it is analyzed as a full verb in analogy to those instances where it precedes a prepositional phrase as in example (4).

(5) 名何必湯武，俗何必成康！(*Shìjì*: 112; 2957)

Míng hé bì Tāng Wú, sú hé bì Chéng Kāng
name why must.be Tang Wu custom why must.be Cheng Kang
‘Regarding your name, why must it be [that of] Tang or Wu, and regarding your customs, why must they be [those of] Cheng or Kang!’

(6) 視所以得尊寵及所以廢辱，亦當世得失之林也，何必舊聞？(*Shìjì*: 18; 878)

Guān suǒ yǐ dé zūn chǒng jí suǒ yǐ fèi rù, yì dāng shì dé shī zhī lín yě, hé bì jiù wén
view whereby get honour favour and whereby abandon shame also at generation get loose SUB multitude FIN why must.be old question
‘If one considers how one gains honour and favours and why one becomes abandoned and humiliated, in our times, too, there are manifold occasions for getting lost, why does one need old questions?’

(7) 奉職循理，亦可以為治，何必威嚴哉？(*Shìjì*: 119; 3099)

Fèng zhí xún lǐ, yì kě yǐ wéi chí, serve office follow principle also can take make govern
hé bì wēi yán zāi
why must.be awe stern FIN
‘Those who fulfil their functions and follow the principles can also be employed to govern, why must there be awe and sternness?’

Contrastively to example (5) to (7) where *bi* is followed by a noun phrase, in examples (8) to (11) it is followed by a verb in which case it is analyzed as an auxiliary verb; one of the main criteria to characterize an auxiliary verb is the fact that they have to be followed by another verb (Li 2004:113, Peyraube 1999:28f) with which they establish a Verb+Object (complement) structure (Peyraube 1999:29, Pulleyblank 1995:39) in contrast to adverbs which modify the verb they precede. In adverbial modification, the modified verb constitutes the centre, whereas with auxiliary verbs, it is the auxiliary verb which constitutes the centre of the phrase (Peyraube 1999:39).
(8) 子路曰：「有民人焉，有社稷焉，何必讀書然後為學！」

(Zhiji: 67; 2212)

Zi Lu yue you min ren yan, you she jiyan,
Zi Lu say there are people man there there are spirits of land and grain there
he bi du shu ranhou wei xue
why must read book afterwards become learn
‘Zi Lu said: “There are the people and there are the spirits of land and grain, why must one read books in order to be considered learned afterwards?”’

(9) 宮殿中可以避世全身，何必深山之中，蒿廬之下。

(Gongdian zhong ke yi bi shi quan shen, he bi palace middle can yi avoid world perfect personality how must
shen shan zhi zhong, hao lu zhi xiad
deep mountain SUB middle waste away hut SUB below
‘In the middle of a palace one can avoid the world and perfect one’s personality, why must one go deep into the mountains or waste away in a hut?’

(10) 如恐左右之見，懷屏隱匿之處，足以使蛭不見，何必食之？

(Lunheing: 20.3.51)

Ru kong zuoyou zhi jiian, huai bing yin ni zhi chuh, if fear entourage SUB see worry screen hide hide SUB place
zu yi shi zhi bu jiian, he bi shi zhi suffice yi make leech NEG see why must eat OBJ
‘If one fears that the entourage might see it, one may take care to screen it off in a hidden place, and this is enough to make sure that the leech will not be seen, why must one eat it?’

(11) 夫宋人父子脩善如此，神報之，何必使之先盲後視哉？(Lunheing: 20.7.5)

Fu Song ren fu zi xiushan ru ci, shen bao zhi, fu Song man father son cultivate good be like this spirit reward OBJ
he bi shi zhi xian mang hou shi zai why must make OBJ first blind afterwards see FIN
‘Well, if these men from Song, father and son, cultivated the good like this and the spirits rewarded them, why must they first be made blind and afterwards be made seeing [again]?’

2.2.2 Modal bi 必 preceded by suo 所

Occasionally, modal bi 必 immediately follows the relativizer suo 所. Apparently not many adverbs are allowed in this position, amongst them none of the above
mentioned modal adverbs including the adverb *yì 亦* ‘also, indeed, in fact’. Only aspecto-temporal adverbs, in particular *cháng 常* ‘habitually’ and *cháng 嘗* ‘once (in the past)’, and manner adverbs seem to be licensed in the position between *suǒ 所* and the verb. The fact that *bì 必* is permitted in this position, although it is only infrequently attested, argues for its analysis as an auxiliary verb at least in these examples. However, it must be conceded that in Classical and Han period Chinese not all auxiliary verbs are attested in the *suǒ 所* phrase; however, if a modal auxiliary verb is present, it usually follows *suǒ 所*. Although in example (12) the negative marker follows *bì 必*, this does not necessarily — at least in the present construction — argue for its analysis as an adverb; the negative marker has scope only over the second verb, the complement of *bì 必*, and not over the entire predicate, a construction which is also possible with the modal verb *kě 可* as has been shown in Meisterernst (2008c) and other auxiliary verbs.

(12) 死者，人之所必不免也。（*Shìjì: 79; 2407*)

死 NOM 之 SUB 所 必 不 免 也 die NOM man SUB suo must NEG avoid FIN

‘Dying is what man cannot avoid.’

(13) 此明聖所必加誅也。（*Hànshū: 64B; 2818*)

此 明 聰 所 必 加 誅 也. this bright wise suo must punish FIN

‘… this is what the wise and virtuous must inflict a punishment upon.’

2.2.3 Modal *bì 必* in combination with negative markers

By default, negative markers follow modal and aspecto-temporal adverbs, but precede auxiliary verbs when the entire modal proposition is negated. Accordingly, a negative marker preceding one of these adverbs can — under certain conditions — argue for a change in the analysis of the supposed adverb from adverb to auxiliary verb. There are a few exceptions to this rule, particularly concerning the aspectual and modal negative marker *wèi 未* ‘not yet, never’ which regularly precedes the aspecto-temporal adverb *cháng 嘗* ‘once (in the past), habitually (in the past)’ and some synonymously employed adverbs. The aspectual negative marker *wèi 未* and the aspecto-temporal adverbs in

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10 As already mentioned, they can also follow a modal auxiliary verb; in this case only the second verb is negated.

11 Alleton (1972:37, 43) excludes the position of negative markers as a criterion to establish adverbs as a syntactic category, since in Modern Mandarin, *bù 不* can appear in different positions in relation to the adverb and, additionally, negative markers can appear independently (1972:43).
general evidently share the same position within the verb phrase which accounts for the differences in position of wèi 未 and the other negative markers. If the combination wèi cháng 未嘗 is again combined with the neutral negative marker bù 不, bù 不 always appears in its default position following cháng 嘗. Additionally to this regular exception with the negative marker wèi 未, the negative marker bù 不 can either precede or follow the modal adverb (particle expressing assertion) guó 果 ‘really’ in Classical Chinese (Unger 1992:39f). But according to the examples presented in Unger, the adverb guó 果 apparently rather has to be analyzed as a manner adverb when preceded by the negative marker bù 不 and not as a modal adverb.12 Furthermore some other adverbs, for instance, the modal adverb yì 亦 ‘also, indeed, in fact’13 — equally to e.g. the aspecto-temporal adverbs jì 既 and yǐ 已 ‘already’ — can occasionally be preceded by the negative marker bù 不, but this construction is confined to marked cases, i.e. to rhetorical questions which are in general followed by the final particle hū 乎.

2.2.3.1 A negative marker follows the modal adverb

First, some examples for the default position of negative markers in combination with modal and aspecto-temporal adverbs will be presented. The most frequently attested negative marker following modal bì 必 is the neutral negative bù 不, but also the modal negative markers wù 勿 ‘(do) not’ and wú 毋/無 ‘(do) not’ are attested, although the latter predominantly has to be analyzed as a verb ‘not have’ when preceded by bì 必. The following examples represent the employment of the different negative markers following bì 必. The adverbial analysis of bì 必 in all examples is quite evident.

(14) 朔不肯，曰：「子必不絕趙祀，朔死不恨。」(Shiji: 43; 1783)
Shuò bù kěn, yuē zǐ bì bù jué Zhào sì,
Shuo NEG willing say you certain NEG interrupt Zhao sacrifices
Shuò sǐ bù hèn
Shuo die NEG anger
‘Shuo was not willing and said: “You will certainly not interrupt the sacrifices of Zhao, so there will be no problem when I die.”’

12 Manner adverbs seem to be less confined regarding their syntax, apparently they can be either preceded or followed by negation markers. But since their syntactic constraints have not yet been studied in detail, a precise analysis cannot be given in this context.
13 This multifaceted adverb exhibits many different functions (Harbsmeier 1981:136ff) and certainly deserves a separate study which would exceed the framework of the present study.
A Syntactic Analysis of Modal \( bì \)

(15) 寡人雖不肖，必不能事秦。（Shìjì: 69; 2253)

Guǎ rén suī bù xiào, bì bù néng shì Qín

‘I may be unworthy, but I will certainly not be able to serve Qin.’

(16) 諸學仙術，為不死之方，其必不成，猶不能使冰終不釋也。（Lùnhéng: 24.25.22)

Zhū xué xiān shù, wéi bù sǐ zhī fāng, all learn immortal technique make NEG die SUB method qí bì bù chéng, yóu bù néng shì bīng zhōng bù shì yě MOD certain NEG complete as NEG can make ice finally NEG melt FIN

‘All this studying the techniques of immortality and practising the methods of how not to die will certainly not achieve anything, just as one cannot cause ice not to melt eventually.’

(17) 閔廬且死，告其子夫差曰：「必毋忘越。」（Shìjì: 41; 1739）

Hé Lǚ qiě sǐ, gào qí zǐ Fūchāi yuē bì wú wàng Yuè

‘When He Lü was about to die, he told his son Fuchai: “You must certainly never forget Yue.”’

(18) 君必勿聽也。（Shìjì: 76; 2370）

Jūn bì wù tīng yě

prince certain NEG_mod listen FIN

‘You certainly must not listen to him.’

2.2.3.2 A negative marker precedes modal \( bì \) 必

Different negative markers are attested in this position. These are the aspectual and modal negative marker \( wèi \) ‘not yet’ which almost never follows \( bì \) 必 in the Classical and Han period literature,\(^{14}\) the neutral negative marker \( bù \) 不 ‘not’ and the negative marker \( fēi \) 非 ‘is not, unless’ which usually, but not exclusively, negates nominal predicates.\(^{15}\) First, examples with \( wèi \) 未 will be discussed.\(^{16}\) Since \( wèi \) 未 ‘not yet’ functions

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\(^{14}\) Two instances of \( bì wèi \) 必未 are attested in the Mòzì (3.3/21/27, 3.3/22/1), one in the Zhānguó cè (461/226/27), one in the Huáinán zǐ (10/83/16) preceding \( wèi cháng \) 未常, and several instances in the post-Han historical literature, in all instances an analysis of \( bì \) 必 as a modal adverb is evidently most conclusive.

\(^{15}\) Additionally, the negative quantifier \( mò \) 莫 ‘no one’ precedes \( bì \) 必 in one instance (Shìjì 23; 1164) in which \( bì \) 必 clearly functions as a full verb.

\(^{16}\) For a detailed discussion of the negative marker \( wèi \) 未 in Han period Chinese see Meisterernst (2008a).
as an aspectual adverb in contrastive distribution with the aspecto-temporal adverbs 既
and 已, it is not surprising that it differs syntactically to a certain extent from the
other negative markers. However, since it belongs to the class of aspecto-temporal
adverbs, it is supposed to follow a modal adverb and accordingly its position preceding
必  argues for an analysis of 有  as a modal (auxiliary) verb. As has been
demonstrated in Meisterernst (2008a, 2008c) 未 frequently serves to modify modal
auxiliary verbs, usually expressing a strong categorical denial (Meisterernst 2008c). In the
Gǔdài Hányǔ xūcī cídiǎn, the combination 未 必 is analyzed as an adverbially
employed modifier-head construction with — according to the categorization of 有 (2000:23)
therein — an adverb as its head. It seems to be of younger origin; it is not
attested yet in the Zuózhuan, the Guóyǔ, Lín yǔ and in Mèngzǐ (Unger 1992:50f), the
earliest examples presented in the Gǔdài Hányǔ xūcī cídiǎn are from the Zhuāngzí.
Although Unger discusses it under the label of 有 as a particle, he does not exclude
that 有 originally has to be analyzed as a verb when combined with the negative
marker 未. However, according to him it is already grammaticalized as a combina-
tion of two function words in the examples presented. In example (19) 有 is followed
by a complement clause which includes the modal auxiliary verb 能 ‘be able to’,
whereas in (20) and (21) it is followed by a transitive VP. In example (19) 有 evidently has to be analyzed as a full verb ‘make sure’.

(19) 今者少子，未能生中子也，而先空亡長男，奈何？(Shǐji: 41; 1753)
Jīn qiàn shào zǐ, wèi néng shēng zhōng zǐ yě, 
now send younger son NEGasp certain be.able live middle son FIN
ér xiān kōng wáng zhǎng nán, nài hé 
CON first vain perish older man what about
‘Well, if you now send the younger son, before you have made sure (but you
have not made sure yet) that the middle son can live, and let the older son
perish in vain, what could be the use of that?’

(20) 江河水之決皆天事，未易以人力為彊塞，塞之未必應天。(Shǐji 29; 1409)
Jiāng He zhī jué jiē tiān shì, wèi yì yī rén lì 
Jiang He SUB opening all heaven affair NEGasp easy with man strength
wéi qiáng sài, sài zhǐ wèi yì yī yíng tiān 
make strong boundary boundary SUB NEGasp certain correspond heaven
‘The breaches [in the banks] of the Jiang and the He are all heavenly work,
and it is not easy to build strong bulwarks with human strength, and the
bulwarks may not conform with Heaven’s will.’

17 In Meisterernst (2008a:140f) 有 in a similar construction has been analyzed as a modal
adverb, an analysis which according to the data presented here cannot be maintained.
The combination *wèi bì* 未必 is frequently attested in the *Lùnhéng*.

(21) 案呂后之崩，未必遇雷也。（*Lùnhéng*: 23.10.21)

Àn Lù hòu zhǐ bēng, wèi bì yù léi yě regarding Lù lady SUB pass.away NEGasp must meet thunder FIN

‘When Lady Lü died, she need not have been struck by a thunderbolt.’

In example (22) *bì* 必 is followed by the aspecto-temporal adverb *chū* 初 which evidently modifies the complement of *bì* 必. Equally to the complement VP of the modal auxiliary verb *néng* 能 ‘can, be able’ the complement VP of *bì* 必 can be modified by an adverb.

(22) 案古人君臣困窮，後得達通，未必初有惡，天禍其前；卒有善，神祐其後也。（*Lùnhéng*: 21.17.28)

Àn gǔ rén jūn chén kùn qióng, hòu dé dá tōng, wèi bì chū yǒu è, tiān huò qí qián; zú yǒu shàn, shén yòu qí hòu yě reach.to penetrate NEGasp must first have bad heaven misfortune its before eventually have good spirit bless its after FIN

‘If amongst men of antiquity rulers and their subjects were distressed, but later achieved success, this need not be, because there was first something bad and Heaven sent misfortune to their predecessors and then eventually there was something good and the spirits sent blessings to their successors.’

In example (23) *bì* 必 is followed by the aspecto-temporal adverb *cháng* 常; a predicate modified by *cháng* 常 or *cháng* 常 is always negated by *wèi* 未 preceding the aspecto-temporal adverb, but in this example *wèi* 未 modifies the modal verb ‘must’ and *cháng* 常 modifies the second verb. In example (24) *bì* 必 is followed by the quantifier *jiē* 皆 ‘all’ which usually quantifies the subject.18

(23) 如據太平，太平之帝，未必常致鳳鳥與河圖也。（*Lùnhéng*: 28.14.21)

Rú jù tài píng, tài píng zhǐ dì, wèi bì cháng if rely great peace great peace SUB emperor NEGasp must regularly bring phoenix bird and River map FIN

‘If they rely on the great peace, the emperors of the [times of] great peace need not always have brought on the Phoenix and the Map of the River.’

18 For a discussion on the quantifier *jiē* 皆 see Harbsmeier (1981:78).
(24) 當時鄉縣之吏，未必皆伏罪也。（Lùnhéng: 49.2.25)
Dāng shí xiāng xiàn zhī lì, wèi bì jiē fū zuì yě  
at time district county SUB official NEGasp must all admit guilt FIN
‘At that time it was not yet necessary that the officials of the districts and  
counties had all admitted their guilt.’

Without being able to give a final account of the syntactic constraints of jiē 皆 in  
this context, it can be stated that it by default follows the negative marker wèi 未 but  
can precede or follow the negative marker bù 不. It belongs to the adverbs which are  
attested modifying the complement VP of the modal auxiliary verb nèng 能 ‘can’; and  
apparently it generally precedes aspecto-temporal adverbs and manner adverbs.  
The following example represents one of the not very frequent cases of double  
negation with bì 必 in the Classical and Han period literature: i.e. bì 必 is preceded by the  
negative marker wèi 未 and followed by the negative marker bù 不. This combination,  
although not very frequently attested, is by no means unique; contrastively, double  
negation with bù 不 as both the first and the second negative marker is almost non-  
existent. Double negation is proposed in the linguistic literature as one of the criteria to  
distinguish auxiliary verbs from adverbs (according to Liu 1960:2, cf. Li 2004:116) in  
Modern Mandarin, but in Classical and Han period Chinese this argument does not hold  
for all adverbs.19 According to Li (2004:126), who argues against double negation as a  
criterion to identify auxiliary verbs, in Modern Mandarin bì 必 is excluded from double  
negation.

(25) 有求而不得之者矣，未必不求而得之者也。（Lùnhéng: 3.5.31)
Yǒu qiú ér bù dé zhī zhě yǐ,  
have search CON NEG get OBJ NOM FIN
wèi bì bù qiú ér dé zhī zhě yě  
NEGasp must NEG search CON get OBJ NOM FIN
‘If there is someone who searches without getting anything, this must not  
imply that there is someone who gets something without searching.’

Whereas in the examples (19) to (25) the aspectual and modal negative marker wèi 未  
precedes bì 必, in the following examples it is the neutral negative marker bù 不 which  
by default follows adverbial bì 必 in not additionally marked sentences. Accordingly,  
the negative marker bù 不 in this position, too, argues for an analysis of bì 必 as a  
modal (auxiliary) verb. In the following examples (26) and (27) bì 必 is followed by a  

19 In the combination wèi cháng bù 未嘗不 cháng 質 certainly has to be analyzed as an adverb.
noun phrase. Since noun phrase predicates are usually negated by the negative copula *fēi* 非 and not by *bù* 不, the presence of *bù* argues for an analysis of *bì 必* as the main verb in this construction. Furthermore, if a negated noun phrase predicate is additionally modified by the assertive modal adverb *bì 必*, this adverb precedes the negative copula *fēi 非*.20

(26) 故禮也不必一道，而便國不必古。(Shiji: 43; 1810)
Gù lǐ yě bù bì yī dào,
therefore rites FIN NEG must be one way
ér biàn guó bù bì gǔ
CON serve state NEG must be antiquity
‘Therefore, regarding the rites, there must not be [merely] one way, and to serve the state, there must not be [the example of] antiquity.’

(27) 馬有千里，不必騏驎之駒；鳥有仁聖，不必鳳皇之鶵。
(Lùnhéng: 50.20.6)
Mǎ yǒu qiān lí, bù bì qílín zhī jū; niǎo yǒu horse have thousand mile NEG must unicorn SUB colt bird have rén shèng, bù bì fènghuáng zhī chú
benevolence wisdom NEG must phoenix SUB fledgling
‘A horse may run a thousand miles, however, it must not be the colt of a unicorn; a bird may be benevolent and wise, but it must not be the fledgling of a phoenix.’

In examples (28) and (29) *bì 必* is followed by a verbal complement and accordingly can be analyzed as a modal auxiliary verb.

(28) 漢得之不必待以全。(Shiji: 53; 2016)
Hàn dé zhī bù bì dài yǐ quán
Han get OBJ NEG must be wait in order to complete
‘Han may get hold of them, but it must not rely on them in order to be complete.’

(29) 簡子見之，若寢夢矣，空虛之象，不必有實。(Lùnhéng: 15.5.28)
Jiǎn zǐ jiàn zhī, ruò qǐn mèng yǐ, kōng xū zhī xiàng,
Jian zi see OBJ be like sleep dream FIN empty empty SUB semblance

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20 Unger (1987:100) presents two examples for this construction, one from *Xùnzì* and one from *Lâshi chânpī*. 

439
bù bì yǒu shí
NEG must have reality
‘When Jian zi saw them, it was like in a dream, they were empty semblances and need not have had any reality.’

In examples (30) and (31) bì 必 is preceded by the negative copula fēi 非 which is not confined to nominal predication. Modifying a verbal predicate, it negates the entire proposition and not the predicate alone. According to Harbsmeier (1981:19) who provides a comprehensive discussion of preverbal fēi 非, it expresses “a negative judgement, rather than a report that something did not happen or a straightforward description that something is or was not ‘thus’. ” Bì 必 in the instances presented certainly has to be analyzed as a verb; in example (30) it is followed by a formally nominalized full complement clause with an overt subject, and in (31) it is followed by a complement clause with an transitive verb and without an overt subject.

(30) 田乞及常所以比犯二君，專齊國之政，非必事勢之漸然也，蓋若遵厭兆祥云。(Shìjí: 46; 1903)
Tianqi and Chang REL with compare revolt two prince usurp Qi state SUB government NEG certain serve opportunity SUB gradual be.like FIN
gài ruò zūn yàn zhào xiáng yún rather be.like follow satiate omen auspicious FIN
‘[The reason] why Tianqi and Chang can be compared with the two revolting princes is that they usurped the government of the state Qin, and this need not be the case because the circumstances gradually became like that, but they rather followed and satisfied the prognostications.’

(31) 陳王起蕲，至陳而王，非必立六國後。(Shìjí: 89; 2575)
Chen king rise Qi  arrive Chen CON become.king NEG necessary establish six state descendant
‘The king of Chen started his uprising in Qi, and when he arrived in Chen he became king, it is not the case that one must enthrone a descendant of the Six Kingdoms.’
2.2.4 Modal *bi 必* in combination with different kinds of adverbs

In this section, the position of modal *bi 必* with respect to other adverbs, modal, and aspecto-temporal adverbs is analyzed. As already mentioned, in general, modal adverbs precede aspecto-temporal and manner adverbs in the hierarchy of adverbs. This hypothesis is based on the study of the position of aspecto-temporal adverbs within the verb phrase (Meisterernst 2009) — which most likely have to be generated within TP — which has to be confirmed with regard to the different modal adverbs and their combination and interrelation with other adverbs.

2.2.4.1 Modal adverbs preceding *bi 必*

Since *bi 必* as an adverb evidently belongs to the category of modal adverbs, its position with respect to other modal adverbs does not provide any evidence for the discussion on the syntactic status of *bi 必*. Nevertheless, it can be stated that *bi 必* by default follows the modal adverb *qí 其* ‘perhaps, possibly’ which expresses different modal values, and the adverb *yì 亦* ‘also, indeed, in fact’. But, since these two adverbs also regularly precede modal auxiliary verbs, their position cannot argue for either the status of *bi 必* as an adverb or as a modal auxiliary verb. The same also accounts for the modal adverb *dài 殆* ‘nearly, almost’, expressing probability and related meanings. Since it follows most other modal adverbs, *bi 必* — if analyzed as an adverb in this position — appears quite low in the hierarchy of modal adverbs.

(32) 天子曰兆民，諸侯曰萬民，今命之大，以從盈數，其必有眾。

(*Shìjī* 39; 1642)

天子曰兆民，諸侯曰萬民，今命之大，以從盈數，其必有眾。

The son of Heaven is named “A Million People”, the feudal lords are named “Ten-Thousand People”, one calls them grand now, and in order to conform to the correct proportion he will certainly possess the masses.’

(33) 而周武王克紂後，成王封叔虞于唐，其地阻險，以此有德與周衰並，亦必興矣。

(*Shìjī* 42; 1758)

而周武王克紂後，成王封叔虞于唐，其地阻險，以此有德與周衰並，亦必興矣。

CON Zhou Wu king conquer Zhou after Cheng king enfief Shuyu
And after king Wu of Zhou conquered Zhou, king Cheng gave Shuyu Tang as his fief, its land was inaccessible and dangerous, but it was on good terms with them and they shared Zhou’s decline, they will certainly also rise.

(34) 高子泣血，殆必有之。（Lünhéng: 26.10.10）
Gāo-ži qì xuè, dài bì yǒu zhī
‘That Gao-zi shed bloody tears has almost certainly been the case.’

2.2.4.2 Aspecto-temporal adverbs following bi  必

A comprehensive study of the syntax and the semantics of aspecto-temporal adverbs has demonstrated that they appear by default below modal adverbs in the hierarchy of adverbs (Meisterernst 2009). In those cases where a lexical item — which usually functions as a modal adverb — follows an aspecto-temporal adverb, it generally has to be interpreted differently, i.e. either as an (auxiliary) verb or as a manner adverb. Manner adverbs by default appear in the position closest to the verb and accordingly follow both modal and aspecto-temporal adverbs. Aspecto-temporal adverbs in general precede modal auxiliary verbs, only very few of them are attested in the position following a modal auxiliary. In this case the complement of the modal verb usually consists of an entire clause including an adverbially modified verb as in examples (22) and (23). According to the syntactic constraints of aspecto-temporal adverbs and auxiliary verbs, bi 必 evidently has to be analyzed as an adverb when it is followed by an aspecto-temporal adverb. Due to the fact that bi 必 predominantly appears in future contexts, it is most frequently attested in combination with the aspecto-temporal adverbs jiāng 將 and qiē 且 which locate a situation in the future, but it is not confined to them. Modal values are only secondary with these adverbs (Meisterernst 2004).

(35) 惠、懷無親，外內棄之；天未絕晉，必將有主，主晉祀者，非君而誰？（Shìjì: 39; 1662）
Huì, Huái wú qīn, wài nèi qì zhī; tiān wèi
Hui Huai not have close outside inside abandon OBJ heaven NEGasp
jué Jin, bì jiāng yǒu zhǔ, zhǔ Jin sì zhě, cut.off Jin certain FUT have master master Jin sacrifice NOM
NEG prince CON who

‘Hui and Huai have no one close, outside and inside one has abandoned
them; but Heaven has not yet cut off Jin [from its sacrifices], and it will
certainly have a ruler, and the one ruling over the sacrifices of Jin, who else
could it be than you, My Lord?’

(36) 足下必將戰勝然後略地, 攻得然後下城, 臣竊以為過矣。

Shǐjì: 89; 2575

sir certain FUT fight win afterwards annex land attack get
ránhòu xià  chéng, chén qiè yǐwéi guò yǐ
afterwards subdue city subject take.liberty consider mistake FIN

‘You, Sir, will certainly have to fight and win before you annex the country, to
attack and conquer before you subdue the cities, but I consider this wrong.’

(37) 王雖東取地於越, 不足以刷恥; 必且取地於秦, 而後足以刷恥於諸侯。

Shǐjì: 40; 1726

king even.if east  take land PREP Yue NEG suffice yi  wipe.off disgrace
bì qiě qū di yú Qin, ér hòu yǐ shuā
certain FUT take land PREP Qin CON afterwards suffice yi  wipe.off
dishgrace PREP feudal.lord
cóng yú zhūhuó
disgrace PREP feudal.lord

‘In the east Your Majesty may take land from Yue, but it will not suffice to
wipe off the disgrace; you certainly will have to take land from Qin, and
only then will it be enough to wipe off the disgrace among the feudal lords.’

In example (38) the auxiliary verb yù 欲 ‘which, want’ follows the modal and the
aspecto-temporal adverbs bì 必 and qiě 且.

(38) 秦不遺餘力矣, 必且欲破趙軍。(Shìjì: 76; 2371)

Qín bù yí yù lì yǐ, bì qiě yù pò Zhào jūn
Qin NEG leave surplus strength FIN certain FUT wish destroy Zhao army

‘Qin does not save himself from any additional pains, it will certainly wish
to destroy the army of Zhao.’

Example (39) represents one of the very infrequent instances in which an aspecto-
temporal adverb different from jiāng 將 and qiě 且 follows the modal adverb bì 必, i.e.
the adverb indicating the resultative and completive 已 ‘already’ which, although referring to a completed situation is not excluded from future tense contexts. The aspecto-temporal adverb is followed by the negative marker 不 which is its default position with regard to aspecto-temporal adverbs.

(39) 後當復出見之騫皇騏騏，必已不與前世見出者相似類。(*Lùnhéng*: 50.24.16)

Hòu dāng fù chū xiàn zhǐ fēnghuáng qílín, bì yǐ bàn yǔ qián shì xiàn chū zhě xiāng sìlèi

‘A phoenix or a unicorn which will become visible later do certainly not already resemble those which became visible in former generations.’

2.2.4.3 Other than aspecto-temporal adverbs following bi 必

In this section, quantifiers and manner adverbs following bi 必 will be discussed. Quantifiers following bi 必 have already been alluded to in the section on bi 必 in relation to negative markers. In the combination [NEG + bi 必 + Quantifier] bi 必 has been analyzed as a verb, and consequently the same analysis for bi 必 will be assumed for affirmative sentences with a quantifier following bi 必.

(40) 太子焉用孔悝? 雖殺之，必或繼之。(Shìjì: 37; 1601)

Tàizǐ yān yòng Kǒng Kuī? Suī shā zhī, bi huò ji zhī

‘How can the crown prince make use of Kong Kui? Even if he were to kill him, it is certain that someone would replace him.’

(41) 馮將以秦韓之兵東卻齊宋，馮因摶三國之兵，乘屈丐之獘，南割於楚，故地必盡得之矣。(Shìjì: 46; 1896)

Píng jiāng yǐ Qín Hán zhī bīng dōng què Qí Sòng, Píng yǐn tuán Píng FUT with Qin Han SUB army east attack Qi Song Ping then bundle sān guó zhī bīng, chéng Qū Gài zhī bì, nán gē yú Chǔ, three state SUB army utilize Qu Gai SUB ruin south cut.off PREP Chu gù di bì jìn dé zhī yǐ therefore land certain complete get OBJ FIN

‘… With the armies of Qin and Han Ping will attack Qi and Song in the East,'
and then Ping will unite the armies of the Three Kingdoms and, profiting from the ruin of Qu Gai, cut land off from Chu in the South, and regarding the land, it is certain that he will get it completely.’

In the following example $bi$ is followed by the manner adverb $dà$ ‘great’ which does not block the analysis of $bi$ as an adverb, since modal adverbs regularly precede manner adverbs.

(42) 今王已絕於齊而責欺於秦, 是吾合秦齊之交而來天下之兵也, 國必大傷矣。 $(Shìjì$: 40; 1724)

‘Now, Your Majesty has already broken off with Qi, and You blame Qin for its deception, this means that, if we enter into good relations with Qin and Qi and cause the armies of the empire to come, then the state will certainly suffer great damage.’

2.2.4.4 Aspecto-temporal adverbs preceding $bi$

The following is one of the infrequent examples with an aspecto-temporal adverb preceding $bi$.21 In most of the instances in which the order $jiāng bi$ 將必 or $qiě bi$ 且必 is attested, both $jiāng$ 將 and $qiě$ 且 may not be analyzed as aspecto-temporal adverbs, but a different analysis, i.e. the nominal analysis for $jiāng$ 將 and the analysis as a conjunctional adverb for $qiě$ 且, has to be assumed. However, even if evidence for this order is quite sparse, it evidently exists and provides additional arguments for the existence of an (auxiliary) modal verb $bi$ in the Classical and the Han period literature.

(43) 主君之子且必有代。 $(Shìjì$: 43; 1788)

‘The son of Your Rulership must have Dai in the future.’

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21 Unger (1992:48, 52) presents a few examples for $jiāng bi$ 將必 in the Classical literature.
3. Conclusion

As the examples have demonstrated the modal employments of *bi 必*, whether as a modal auxiliary verb or as a modal adverb are clearly closely related to its employment as an independent verb indicating certainty. Syntactically it differs considerably from many of the other modal adverbs and evidently shows constraints which argue for its status as an auxiliary verb. The arguments for an analysis of *bi 必* as an auxiliary verb or an adverb will be summarized in the following according to the tests applied.

– Auxiliary verbs are characterized by the following syntactic constraints:
  a) *Wh*-words precede auxiliary verbs.
  b) The relativizer *suǒ 所* precedes an auxiliary verb.
  c) Negative markers (other than *wèi 未*) precede auxiliary verbs.
  c′) The negative marker *wèi 未* precedes auxiliary verbs.
  d) Aspecto-temporal adverbs (usually) precede auxiliary verbs.
  e) Quantifiers precede or follow auxiliary verbs.

– Modal (and aspecto-temporal) adverbs are characterized by the following syntactic constraints:
  a) *Wh*-words by default follow modal and aspecto-temporal adverbs.
  b) The relativizer *suǒ 所* usually does not precede a modal adverb, but it can precede aspecto-temporal adverbs.
  c) Negative markers other than *wèi 未* usually follow modal and aspecto-temporal adverbs (in rhetorically un-marked sentences).
  c′) The negative marker *wèi 未* by default precedes the aspecto-temporal adverb *cháng 嘗* and its synonyms.
  d) Aspecto-temporal adverbs follow modal adverbs.
  e) Quantifiers follow modal adverbs and precede aspecto-temporal adverbs.

As the following two tables demonstrate, there is conclusive evidence for an analysis of *bi 必* as both an auxiliary verb and a modal adverb. Although the tests provide more arguments for the verbal analysis, its syntactic constraints with regard to aspecto-temporal adverbs and — to a certain extent to negative markers — conclusively argue for an additional analysis of *bi 必* as a modal adverb. Consequently, two different, but etymologically related words both written as *bi 必* have to be assumed in the Han period literature according to the syntactic constraints *bi 必* is subject to; one appears as a modal verb, employed independently or as auxiliary verb ‘must, need to’, and the other appears as a modal adverb ‘certainly’. However, it has to be conceded that fuzzy
A Syntactic Analysis of Modal bi

cases remain in which — because of the lack of additional syntactic evidence — no clear syntactic distinction can be made between auxiliary verb and adverb.

Table 1: Arguments for bi 必 as a modal auxiliary verb

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<th>Bi 必 precedes</th>
<th>Bi 必 follows</th>
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<td>Precedes wh-words</td>
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<tr>
<td>Follows suǒ 所</td>
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<tr>
<td>Follows NEG bù 不, wú 無, fēi 非</td>
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<tr>
<td>Follows NEG wèi 未</td>
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<tr>
<td>Follows aspecto-temporal adverbs(^{22})</td>
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<tr>
<td>Precedes or follows quantifiers</td>
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Table 2: Arguments for bi 必 as an adverb

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<th>Bi 必 precedes</th>
<th>Bi 必 follows</th>
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<td>Precedes suǒ 所</td>
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<tr>
<td>Precedes NEG bù 不, wú 無, fēi 非</td>
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<tr>
<td>Precedes NEG wèi 未</td>
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<td>Precedes aspecto-temporal adverbs</td>
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<td>Precedes or follows quantifiers</td>
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Although the data provides some evidence for a precise analysis of the syntactic status of bi 必, it simultaneously confirms the difficulties in distinguishing precisely between adverbs and auxiliary verbs in (Han period) Chinese in general. This is partly due to the fact that the precise picture of the syntax and the semantics of adjuncts in Han period Chinese has not yet been achieved, but is also due to the lack of any morphological and only a few syntactic distinctions between auxiliary verbs and adverbs in general, which both occupy a position to the left of the verb. Nevertheless, the following order of syntactic elements, which still has to be confirmed by more evidence, can be established with regard to adverbs and modal auxiliary verbs with bi 必 being permitted in both the position of ADV\(_{\text{mod}}\) and the position of AUX:

\[ \text{ADV}_{\text{mod}} (= bi 必) \text{ suo NEGasp ADVasp WH-Op NEG AUX}(= bi 必) V. \]

\(^{22}\) Brackets indicate that instances for this syntactic position are extremely infrequent.
References


