

## **A Syntactic Analysis of Modal *bì* 必: Auxiliary Verb or Adverb?**

Barbara Meisterernst (梅思德)

*Humboldt-University Berlin*

In this paper a syntactic analysis of the different words written with the character *bì* 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 *bì* 必 as both an auxiliary verb and a modal adverb. Although the evidence for a verbal analysis of *bì* 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 *bì* 必 as a modal adverb. Consequently, it is hypothesized that two different, but etymologically related words written *bì* 必 have to be assumed in the Han period literature according to the syntactic constraints *bì* 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, *bì* 必, hierarchy of adverbs, Han period Chinese

### **1. Introduction**

In this paper a syntactic analysis of the different words written with the character *bì* 必 in Han period Chinese is at issue with particular regard to its modal employments. The character *bì* 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 *bì* 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 *bì* 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 *bì* 必 in the sense of ‘decidedly, inevitably, of a certainty,’ etc. which can be negated by *wèi* 未 and by *bù* 不. The exact grammatical function of *bì* 必

is not specified. According to Shadick (1968:755ff), *bì* 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, *bì* 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’; *guǒ* 果 ‘after all, in the end’, and others. Additionally Shadick (1968:765) shows that *bì* 必 can function as a conjunction in a second clause, referring to “all possible occasions” in the meaning ‘necessarily, always’. Gassmann (1997:196) qualifies *bì* 必 as a modal verb ‘müssen (must)’ comparable to *néng* 能 ‘can’; equally the *Thesaurus Linguae Sericae* categorizes *bì* 必 as a (auxiliary) verb in different syntactic constellations. Unger analyses *bì* 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.<sup>1</sup> Unger argues for his analysis with the fact that quantifiers ‘Distributiva’ usually follow *bì* 必. As an adverb *bì* 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 *bì* 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 Hànyǔ xūcí cídiǎn* (2000:23) *bì* 必 is analyzed as an adverb and a conjunction. However, *bì* 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 *bì* 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.<sup>2</sup> The following discussion

---

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

<sup>2</sup> 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.<sup>3</sup> The study is based on data predominantly taken from the *Shiji* 史記 (ca. 100 BC), the *Hànshū* 漢書 (1<sup>st</sup> c. AD) and the *Lùnhéng* 論衡 (1<sup>st</sup> 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.<sup>4</sup>

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

<sup>3</sup> See in particular Peyraube (1999, 2001), Liu (2000), and Meisterernst (2008b, 2008c).

<sup>4</sup> 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) *bì* 必 is not glossed as a full verb, only its adverbial meanings are given.

In the first example presented *bì* 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… (Shiji: 92; 2622)  
 Qiě Hàn wáng bù kě bì, shēn jū Xiàng wáng  
 furthermore Han king NEG can secure person dwell Xiang king  
 zhǎngwò zhōng shù yǐ  
 jurisdiction middle few FIN<sup>5</sup>  
 ‘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) *bì* 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 *bì* 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。(Shiji: 7; 305)  
 Wú wén Qín jūn wéi Zhào wáng Jùlù,  
 I hear Qin army encircle Zhao king Julu  
 jí yǐn bīng dù Hé,  
 quick conscribe army cross river  
 Chǔ jí qí wài, Zhào yìng qí 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 *bì* 必 is employed as a transitive verb with the meaning ‘ascertain, make sure’, followed by a formally nominalized complement clause.

<sup>5</sup> The abbreviations for the grammatical glosses in the examples are: CON connector; FIN final particle; FUT future; MOD modality; NEG negator; NEG<sub>asp</sub> aspectual negator; NEG<sub>mod</sub> modal negator; OBJ object pronoun; PREP preposition; PRT particle; REL relativizer; SUB subordinator; YI weak transitive verb ‘take, assume’ (Meisterernst 2008b:104f).

- (3) 今媾，郝又以不能必秦之不復攻也。(Shǐjì: 76; 2372)

Jīn gòu, Shí yòu yǐ bù néng bì Qín zhī  
 now peace.treaty Shi again so NEG can secure Qin SUB  
 bú fù gōng yě  
 NEG again attack FIN

‘If we will have a peace treaty now, Shi will then still not be able to make sure that Qin does not launch another attack.’

In example (4) the syntactic analysis of *bì* 必 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 *bì* 必 is followed by a nominal predicate. Nevertheless, if *bì* 必 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 *bì* 必 preceding a prepositional predicate; other adverbs which are attested in this position are the modal adverb *qí* 其 ‘perhaps, possibly’, the quantifier *gè* 各 ‘each’ and the negative marker *bù* 不 ‘not’. The fact that the negative marker *bù* 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.<sup>6</sup> If *bì* 必 is syntactically identical to the afore mentioned adverbs, the occurrence of the evident adverbs *qí* 其 and *gè* 各, in the same syntactic position as *bì* 必 could argue against the analysis of *bì* 必 as a verb in this position. However, since these adverbs differ considerably in their syntax and their semantics, only two of them, i.e. *qí* 其 and *bì* 必 have in common that they can precede both nominal and verbal predicates,<sup>7</sup> they do not necessarily have to be assumed to be syntactically identical to *bì* 必. Accordingly, *bì* 必 will be analyzed as a verb with the meaning ‘must be’ in this example.

- (4) 蓋天好陰，祠之必於高山之下，小山之上，命曰「峙」…(Shǐjì: 28; 1367)

Gài tiān hào yīn, cí zhī bì yú gāo shān zhī xià,  
 PRT heaven love Yin sacrifice OBJ must.be at high mountain SUB bottom

<sup>6</sup> 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 *bù* 不 rather have to be analyzed as cases of ellipsis (with a deleted verb) than as cases of predicative prepositional phrases.

<sup>7</sup> See Harbsmeier (1981:85) “Obviously, *ge* would be unthinkable in sentences with nominal predicates...”

xiǎo shān      zhī shàng, míng yuē: zhì...  
small mountain SUB height name say altar...

‘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 *bì* 必: adverb or verb, some syntactic evidence

In this section the syntactic arguments for the classification of *bì* 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, *bì* 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 *qiě* 且 which are the aspecto-temporal adverbs mostly attested in combination with *bì* 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 *bì* 必 which also usually qualifies situations in the future. In the following, a few examples for *bì* 必 in combination with the afore mentioned syntactic elements will be presented to reveal the syntactic status of *bì* 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.<sup>8</sup>

### 2.2.1 *Bì* 必 in combination with *wh*-words

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

---

<sup>8</sup> 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.

<sup>9</sup> 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* 亦, the syntactic status of which as an adverb is much more evident than that of *bì* 必 and which is usually followed by the *wh*-word. In examples (5) to (7), *bì* 必 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！(Shiji: 112; 2957)  
 Míng hé bì Tāng Wǔ, 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) 觀所以得尊寵及所以廢辱，亦當世得失之林也，何必舊聞？  
 (Shiji: 18; 878)  
 Guān suǒyǐ dé zūn chǒng jí suǒyǐ fèi rù, yì dāng  
 view whereby get honour favour and whereby abandon shame also at  
 shì dé shī zhī lín yě, hé bì jiù wén  
 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？(Shiji: 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 *bì* 必 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，何必讀書然後爲學！」  
 (Shǐjì: 67; 2212)  
 Zǐ Lù yuē yǒu mǐn rén yán, yǒu shè-jì yán,  
 Zi Lu say there.are people man there there.are spirits.of.land.and.grain there  
 hé bì dú shū ránhòu wéi xué  
 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。」 (Shǐjì: 126; 3205)  
 Gōngdiàn zhōng kě yǐ bì shì quán shēn, hé bì  
 palace middle can yi avoid world perfect personality how must  
 shēn shān zhī zhōng, hāo lú zhī xià  
 deep mountain SUB middle waste.away hut SUB below  
 ‘In the middle of a palace one can avoid the world and perfect one’s per-  
 sonality, 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，足以使蜚不見，何必食之？  
 (Lùnhéng: 20.3.51)  
 Rú kǒng zuǒyòu zhī jiàn, huái bǐng yǐn nì zhī chù,  
 if fear entourage SUB see worry screen hide hide SUB place  
 zú yǐ shǐ zhī bú jiàn, hé bì shí zhī  
 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？ (Lùnhéng: 20.7.5)  
 Fú Sòng rén fù zǐ xiū shàn rú cǐ, shén bào zhī,  
 fu Song man father son cultivate good be.like this spirit reward OBJ  
 hé bì shǐ zhī xiān máng hòu shì zāi  
 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 after-  
 wards be made seeing [again]?’

### 2.2.2 Modal *bì* 必 preceded by *suǒ* 所

Occasionally, modal *bì* 必 immediately follows the relativizer *suǒ* 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。(Shiji: 79; 2407)  
 Sǐ zhě, rén zhī suǒ bì bù miǎn yě  
 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)  
 Cǐ míng shèng suǒ bì jiā zhū yě  
 this bright wise suo must add punishment 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.<sup>10</sup> 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.<sup>11</sup> 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

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

<sup>11</sup> 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) *guǒ* 果 ‘really’ in Classical Chinese (Unger 1992:39f). But according to the examples presented in Unger, the adverb *guǒ* 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.<sup>12</sup> Furthermore some other adverbs, for instance, the modal adverb *yì* 亦 ‘also, indeed, in fact’<sup>13</sup> — 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* 無/毋 ‘(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 bú hèn  
 Shao 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.”’

<sup>12</sup> 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.

<sup>13</sup> 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.

- (15) 寡人雖不肖，必不能事秦。(Shǐjì: 69; 2253)  
 Guǎ rén suī búxiào, bì bù néng shì Qín  
 lonely man even.if unworthy certain NEG be.able serve Qin  
 ‘I may be unworthy, but I will certainly not be able to serve Qin.’
- (16) 諸學仙術，爲不死之方，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 shǐ bīng zhōng bú 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) 闔廬且死，告其子夫差曰：「必毋忘越。」(Shǐjì: 41; 1739)  
 Hé Lú qiě sǐ, gào qí zǐ Fúchāi yuē bì wú wàng Yue  
 He Lü FUT die tell his son Fuchai say certain NEG<sub>mod</sub> forget Yue  
 ‘When He Lü was about to die, he told his son Fuchai: “You must certainly  
 never forget Yue.”’
- (18) 君必勿聽也。(Shǐjì: 76; 2370)  
 Jūn bì wù tīng yě  
 prince certain NEG<sub>mod</sub> 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* 未 ‘not yet’ which almost never follows *bì* 必 in the Classical and Han period literature,<sup>14</sup> the neutral negative marker *bù* 不 ‘not’ and the negative marker *fēi* 非 ‘is not, unless’ which usually, but not exclusively, negates nominal predicates.<sup>15</sup> First, examples with *wèi* 未 will be discussed.<sup>16</sup> Since *wèi* 未 ‘not yet’ functions

<sup>14</sup> Two instances of *bì wèi* 必未 are attested in the *Mòzǐ* (3.3/21/27, 3.3/22/1), one in the *Zhànguó cè* (461/226/27), one in the *Huáinán zǐ* (10/83/16) preceding *wèi cháng* 未嘗, 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.

<sup>15</sup> Additionally, the negative quantifier *mò* 莫 ‘no one’ precedes *bì* 必 in one instance (*Shǐjì* 23; 1164) in which *bì* 必 clearly functions as a full verb.

<sup>16</sup> 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 *jì* 既 and *yǐ* 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 *bì* 必 argues for an analysis of *bì* 必 as a modal (auxiliary) verb. As has been demonstrated in Meisterernst (2008a, 2008c) *wèi* 未 frequently serves to modify modal auxiliary verbs, usually expressing a strong categorical denial (Meisterernst 2008c). In the *Gǔdài Hànyǔ xūcí cídiǎn*, the combination *wèi bì* 未必 is analyzed as an adverbially employed modifier-head construction with — according to the categorization of *bì* 必 (2000:23) therein — an adverb as its head. It seems to be of younger origin; it is not attested yet in the *Zuǒzhuàn*, the *Guóyǔ*, *Lúnyǔ* and in *Mèngzǐ* (Unger 1992:50f), the earliest examples presented in the *Gǔdài Hànyǔ xūcí cídiǎn* are from the *Zhuāngzǐ*. Although Unger discusses it under the label of *bì* 必 as a particle, he does not exclude that *bì* 必 originally has to be analyzed as a verb when combined with the negative marker *wèi* 未. However, according to him it is already grammaticalized as a combination of two function words in the examples presented. In example (19) *bì* 必 is followed by a complement clause which includes the modal auxiliary verb *néng* 能 ‘be able to’, whereas in (20) and (21) it is followed by a transitive VP.<sup>17</sup> In example (19) *bì* 必 evidently has to be analyzed as a full verb ‘make sure’.

- (19) 今遣少子，未必能生中子也，而先空亡長男，奈何？(Shǐjì: 41; 1753)  
 Jīn qiǎn shǎo zǐ, wèi bì néng shēng zhōng zǐ yě,  
 now send younger son NEG<sub>asp</sub> 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) 江河之決皆天事，未易以人力爲彊塞，塞之未必應天。(Shǐjì 29; 1409)  
 Jiāng Hé zhī jué jiē tiān shì, wèi yì yǐ rén lì  
 Jiang He SUB opening all heaven affair NEG<sub>asp</sub> easy with man strength  
 wéi qiáng sài, sài zhī wèi bì yìng tiān  
 make strong boundary boundary SUB NEG<sub>asp</sub> 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].’

<sup>17</sup> In Meisterernst (2008a:140f) *bì* 必 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 Lǚ hòu zhī bēng, wèi bì yù léi yě  
 regarding Lü lady SUB pass.away NEG<sub>asp</sub> 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  
 regarding antiquity people ruler subject distress exhaust afterwards get  
 dá tōng, wèi bì chū yǒu è, tiān huò qí  
 reach.to penetrate NEG<sub>asp</sub> must first have bad heaven misfortune its  
 qián; zú yǒu shàn, shén yòu qí hòu yě  
 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* 嘗 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.<sup>18</sup>

- (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 zhī dì, wèi bì cháng  
 if rely great peace great peace SUB emperor NEG<sub>asp</sub> must regularly  
 zhì fèng niǎo yǔ Hé tú yě  
 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.’

<sup>18</sup> 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 fù zuì yě  
 at time district county SUB official NEG<sub>asp</sub> 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 *néng* 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.<sup>19</sup> 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  
 NEG<sub>asp</sub> 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

<sup>19</sup> In the combination *wèi cháng bù* 未嘗不 *cháng* 嘗 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 *bi* 必 as the main verb in this construction. Furthermore, if a negated noun phrase predicate is additionally modified by the assertive modal adverb *bi* 必, this adverb precedes the negative copula *fēi* 非.<sup>20</sup>

- (26) 故禮也不必一道，而便國不必古。(Shǐjì: 43; 1810)  
 Gù lǐ yě bú bì yī dào,  
 therefore rites FIN NEG must.be one way  
 ér biàn guó bú 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，不必鳳皇之鷦。  
 (Lùnhéng: 50.20.6)  
 Mǎ yǒu qiān lǐ, bú bì qílín zhī jū; niǎo yǒu  
 horse have thousand mile NEG must unicorn SUB colt bird have  
 rén shèng, bú 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) *bi* 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。(Shǐjì: 53; 2016)  
 Hàn dé zhī bú 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

<sup>20</sup> Unger (1987:100) presents two examples for this construction, one from *Xúnzǐ* and one from *Lǚshì chūnqū*.

bú 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。(Shiji: 46; 1903)

Tiānqǐ jí Cháng suǒ yǐ bǐ fàn èr jūn, zhuān Qí guó  
Tianqi and Chang REL with compare revolt two prince usurp Qi state  
zhī zhèng, fēi bì shì shì zhī jiàn rán yě,  
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) 陳王起蕪，至陳而王，非必立六國後。(Shiji: 89; 2575)

Chén wáng qǐ Qí, zhì Chén ér wàng,  
Chen king rise Qi arrive Chen CON become.king  
fēi bì li liù guó hòu  
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 *bì* 必 in combination with different kinds of adverbs

In this section, the position of modal *bì* 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 *bì* 必

Since *bì* 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 *bì* 必. Nevertheless, it can be stated that *bì* 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 *bì* 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, *bì* 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。

(*Shǐjì*: 39; 1642)

Tiān zǐ yuē zhào mín, zhūhóu yuē wàn mín,  
heaven son say million people feudal.lord say ten-thousand people

jīn mìng zhī dà, yǐ cóng yíng shù,  
now name OBJ grand in.order.to follow full number

qí bì yǒu zhòng  
MOD certain have multitude

‘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。(Shǐjì: 42; 1758)

Ér Zhōu Wǔ wáng kè Zhòu hòu, Chéng wáng fēng Shúyú  
CON Zhou Wu king conquer Zhou after Cheng king enfief Shuyu

yú Táng, qí dì zhǔ xiǎn, yǐ cǐ yǒu dé yǔ  
 at Tang its land inaccessible dangerous with this have good.term and  
 Zhōu shuāi bìng, yì bì xīng yǐ  
 Zhou decline common also certain rise FIN  
 ‘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。(Lùnhéng: 26.10.10)

Gāo-zǐ qì xuè, dài bì yǒu zhī  
 Gao-zi cry blood almost certain have OBJ

‘That Gao-zi shed bloody tears has almost certainly been the case.’

#### 2.2.4.2 Aspecto-temporal adverbs following *bì* 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, *bì* 必 evidently has to be analyzed as an adverb when it is followed by an aspecto-temporal adverb. Due to the fact that *bì* 必 predominantly appears in future contexts, it is most frequently attested in combination with the aspecto-temporal adverbs *jiāng* 將 and *qiě* 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？(Shǐjì: 39; 1662)

Huì, Huái wú qīn, wài nèi qì zhī, tiān wèi  
 Hui Huai not.have close outside inside abandon OBJ heaven NEG<sub>asp</sub>  
 jué Jin, bì jiāng yǒu zhǔ, zhǔ Jin sì zhě,  
 cut.off Jin certain FUT have master master Jin sacrifice NOM

fēi jūn ér shuí

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，臣竊以爲過矣。

(*Shǐjì*: 89; 2575)

Zúxià bì jiāng zhàn shèng ránhòu lüè dì, gōng dé

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)

Wáng suī dōng qǔ dì yú Yuè, bù zú yǐ shuā chǐ;

king even.if east take land PREP Yue NEG suffice yi wipe.off disgrace

bì qiě qǔ dì yú Qín, ér hòu zú yǐ shuā

certain FUT take land PREP Qin CON afterwards suffice yi wipe.off

chǐ yú zhūhóu

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。(Shǐjì: 76; 2371)

Qín bù yí yú 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 *yǐ* 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 *bù* 不 which is its default position with regard to aspecto-temporal adverbs.

- (39) 後當復出見之鳳皇騏驎，必已不與前世見出者相似類。(Lùnhéng: 50.24.16)

Hòu dāng fù chū xiàn zhī fènghuáng qílín, bì  
 afterwards ought again go.out visible SUB phoenix unicorn certain  
 yǐ bù yǔ qián shì xiàn chū zhě xiāng sīlèi  
 already NEG with before generation visible go.out NOM mutually resemble  
 ‘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 *bì* 必

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

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

Tàizǐ yān yòng Kǒng Kuī? Suī shā zhī,  
 crown.prince how use Kong Kui? Even.if kill OBJ  
 bì huò jì zhī  
 certain someone continue OBJ

‘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，馮因搏三國之兵，乘屈丐之弊，南割於楚，故地必盡得之矣。(Shǐjì: 46; 1896)

Píng jiāng yǐ Qín Hán zhī bīng dōng què Qí Sòng, Píng yīn tuán  
 Ping 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 dì 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 *bì* 必 is followed by the manner adverb *dà* 大 ‘great’ which does not block the analysis of *bì* 必 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。(Shiji: 40; 1724)

Jīn wáng yǐ jué yú Qí ér zé qī yú Qín,  
 now king already break.off PREP Qi CON blame deception PREP Qin  
 shì wú hé Qín Qì zhī jiāo ér lái tiān xià  
 this I join Qin Qi SUB relation CON come heaven below  
 zhī bīng yě, guó bì dà shāng yǐ  
 SUB soldier FIN state certain great damage FIN

‘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 *bì* 必

The following is one of the infrequent examples with an aspecto-temporal adverb preceding *bì* 必.<sup>21</sup> In most of the instances in which the order *jiāng bì* 將必 or *qiě bì* 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 *jiàng* 將 and the analysis as a conjunctive 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 *bì* 必 in the Classical and the Han period literature.

- (43) 主君之子且必有代。(Shiji: 43; 1788)

Zhǔ jūn zhī zǐ qiě bì yǒu Dài  
 Ruler prince SUB son FUT must have Dai

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

<sup>21</sup> Unger (1992:48, 52) presents a few examples for *jiāng bì* 將必 in the Classical literature.

### 3. Conclusion

As the examples have demonstrated the modal employments of *bì* 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 *bì* 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 *bì* 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 *bì* 必 as a modal adverb. Consequently, two different, but etymologically related words both written as *bì* 必 have to be assumed in the Han period literature according to the syntactic constraints *bì* 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

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

	<i>Bi</i> 必 precedes	<i>Bi</i> 必 follows
<b>Precedes <i>wh</i>-words</b>	+	
<b>Follows <i>suǒ</i> 所</b>		+
<b>Follows NEG <i>bù</i> 不, <i>wú</i> 無, <i>fēi</i> 非</b>		+
<b>Follows NEG <i>wèi</i> 未</b>		+
<b>Follows aspecto-temporal adverbs<sup>22</sup></b>		(+)
<b>Precedes or follows quantifiers</b>	+	

**Table 2:** Arguments for *bi* 必 as an adverb

	<i>Bi</i> 必 precedes	<i>Bi</i> 必 follows
<b>Follows <i>wh</i>-words</b>		–
<b>Precedes <i>suǒ</i> 所</b>	–	
<b>Precedes NEG <i>bù</i> 不, <i>wú</i> 無, <i>fēi</i> 非</b>	+	
<b>Precedes NEG <i>wèi</i> 未</b>	(+)	
<b>Precedes aspecto-temporal adverbs</b>	+	
<b>Precedes or follows quantifiers</b>	+	

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  $ADV_{mod}$  and the position of  $AUX$ :

[ $ADV_{mod}$  (= *bi*) *suǒ*  $NEG_{asp}$   $ADV_{asp}$   $WH-Op$   $NEG$   $AUX$ (= *bi*)  $V$ ].

<sup>22</sup> Brackets indicate that instances for this syntactic position are extremely infrequent.

## References

- Alleton, Viviane. 1972. *Les adverbos en chinois moderne*. Paris: Mouton.
- Chinese Academy of Social Sciences, Institute of Linguistics. 1999. *Gudai Hanyu Xuci Cidian [Dictionary of Function Words in Ancient Chinese]*. Beijing: The Commercial Press.
- Cinque, Guglielmo. 1999. *Adverbs and Functional Heads: A Cross-Linguistic Perspective*. Oxford & New York: Oxford University Press.
- Dobson, W. A. C. H. 1959. *Late Archaic Chinese*. Toronto: University of Toronto Press.
- Dobson, W. A. C. H. 1964. *Late Han Chinese*. Toronto: University of Toronto Press.
- Gassmann, Robert H. 1997. *Grundstrukturen der antikchinesischen Syntax*. Bern & New York: Peter Lang.
- Harbsmeier, Christoph. 1981. *Aspects of Classical Chinese Syntax*. London & Malmö: Curzon Press.
- Li, Renzhi. 2004. *Modality in English and Chinese: A Typological Perspective*. Boca Raton: Dissertation.com.
- Liu, Jian. 1960. Lun zhudongci [On auxiliary]. *Zhongguo Yuwen [Studies of the Chinese Language]* 1960.1:1-4.
- Liu, Li. 2000. *Xianqin Hanyu Zhudongci Yanjiu [A Study of Auxiliary Verbs in Pre-Qin Chinese]*. Beijing: Beijing Normal University Press.
- Meisterernst, Barbara. 2004. The future tense in Classical and Han period Chinese. *Meaning and Form: Essays in Pre-Modern Chinese Grammar*, ed. by Ken'ichi Takashima & Shaoyu Jiang, 121-146. München: Lincom Europa.
- Meisterernst, Barbara. 2008a. The negative *wei* 未 in Han period Chinese. *Journal of Chinese Linguistics* 36.1:121-154.
- Meisterernst, Barbara. 2008b. Modal verbs in Han period Chinese, Part I: the syntax and semantics of *kě* 可 and *kěyǐ* 可以. *Cahiers de Linguistique – Asie Orientale* 37.1:85-120.
- Meisterernst, Barbara. 2008c. Negative markers in combination with the modal auxiliary verbs *kě* 可 and *kěyǐ* 可以. *Cahiers de Linguistique – Asie Orientale* 37.2:197-222.
- Meisterernst, Barbara. 2009. *Temporality in the Shǐjì*. Manuscript.
- Peyraube, Alain. 1999. The modal auxiliaries of possibility in Classical Chinese. *Selected Papers from the Fifth International Conference on Chinese Linguistics*, ed. by H. Samuel Wang, Feng-fu Tsao & Chinfa Lien, 27-52. Taipei: Crane.
- Peyraube, Alain. 2001. On the modal auxiliaries of volition in Classical Chinese. *Sinitic Grammar: Synchronic and Diachronic Perspectives*, ed. by Hilary Chappell, 172-188. Oxford & New York: Oxford University Press.



- Pulleyblank, Edwin G. 1991. *Lexicon of Reconstructed Pronunciation in Early Middle Chinese, Late Middle Chinese and Early Mandarin*. Vancouver: UBC Press.
- Pulleyblank, Edwin G. 1995. *Outline of Classical Chinese Grammar*. Vancouver: UBC Press.
- Shadick, Harold Ernest, and Chien Ch'iao. 1968. *A First Course in Literary Chinese*. Ithaca: Cornell University Press.
- Unger, Ulrich. 1987-97. *Grammatik des Klassischen Chinesisch*. Münster (unpublished).
- Yang, Shu-da. 1928[1959]. *Ci Quan [Annotation of Words]*. Taipei: The Commercial Press.