

Modal verbs in Han period Chinese
Part II: Negative Markers in combination with the modal
auxiliary verbs *kě* 可 and *kě yǐ* 可以 *

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This article focuses on a synchronic analysis of the modal auxiliary verbs *kě* 可 and *kě yǐ* 可以 in Han period Chinese. The study reveals that in Han period Chinese *kě* 可 and *kě yǐ* 可以 predominantly express root possibility values, while deontic values are mainly restricted to the negated form of the construction. Propositional values (either epistemic or evidential) are almost non-existent and co-occur only with verbs that licence an evidential interpretation, a notion which is already present in Classical Chinese.

Key words : auxiliaries, modality, Han period Chinese.

Cet article présente une étude synchronique sur les verbes auxiliaires modaux *kě* 可 et *kě yǐ* 可以 dans le chinois de la période Han. La discussion montre que les verbes modaux *kě* 可 et *kě yǐ* 可以 y expriment le plus souvent la possibilité radicale, les valeurs déontiques étant rares dans les constructions affirmatives. Quant aux valeurs de modalité propositionnelle (modalité épistémique ou évidentielle) elles sont presque inexistantes, et restent limitées aux verbes permettant une interprétation évidentielle, notion qui existe déjà en chinois classique.

Mots-clés : auxiliaires, modalité, chinois de la période Han.

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1. INTRODUCTION

In part I of this article the syntax and the semantics of the modal auxiliary verbs *kě* 可 and *kě yǐ* 可以 in an affirmative sentence have been discussed (Meisterernst 2008b). This part, part II, is devoted to the analysis of the combination of these modal verbs with negative markers following the assumption (see *e.g.* de Haan (1997)) that the interrelation between modals and negatives is of particular relevance in linguistic studies on modality. Since according to Traugott (1989:52) “the older meanings tend to be maintained longer in negative environments”¹ it can be hypothesized that the negated modals are less disposed to change from indicating root modality to indicating epistemic modality.² Traditionally, two different categories of negatives are distinguished according to their initial consonant in the Pre-Classical and Classical Chinese language, all of which are still present in Han period Chinese.³ Of these two groups, the *p/f*-negatives express neutral negation without any modal values involved whereas the *m/w*-negatives usually indicate different modal values: these are predominantly deontic (root modal) values,

¹ To exemplify this hypothesis Traugott (1989:52) quotes Tottie (1985) who supports this hypothesis with evidence such as “the maintenance of the volitional sense of *will* in *We won't go*, and the relative paucity of epistemic (as opposed to deontic) *must not* and especially *mustn't* in British English.”

² As has been demonstrated in the first part of this study, a change from deontic or root modal values to propositional (epistemic and evidential) values cannot be confirmed for the Han period and epistemic values are still rare for *kě* 可 and *kě yǐ* 可以 in Modern Mandarin (Meisterernst 2008b:116).

³ According to their initial, the negatives are categorised into: (1) the so-called *p/f*-negatives, and (2) the so-called *m/w*-negatives. The first group consists of all negatives with a **p*-initial – reconstructed for Middle Chinese and earlier stages of Chinese – which partly develops into an *f*-initial; the second group consists of all negatives with an **m*-initial in Middle Chinese which develops into a *w*-initial.

but they can also express epistemic modality.⁴ Both, modally neutral negatives and negatives with a modal value, can appear to modify the modal predicate: these are in particular the neutral negative *bù* 不 ‘not’, the modal negative *wú* 無 ‘(do) not’, together with its variants, and the aspecto-temporal and modal negative *wèi* 未 ‘not yet’, ‘not at all, never’. The following two examples represent only the modally neutral negative and the aspectual/modal negative *wèi* 未:⁵

- (1) 終不可就,已而棄之。 *Shǐjì*: 112; 2961
 zhōng bù kě jiù, yǐ ér qì zhī
 finally NEG can finish, then abandon OBJ
 ‘... when eventually it could not be finished, they gave it up.’⁶
- (2) 是未可鞭而置也 *Shǐjì*: 33; 1532
 shì wèi kě biān ér zhì yě
 this NEG_{mod} can whip CON leave FIN
 ‘Someone like him cannot be whipped without consequences.’

In Classical and Han period Chinese, the modally neutral negative *bù* 不 ‘not’, the aspectual and modal negative *wèi* 未 ‘not

⁴ One of the anonymous reviewers pointed out that the negatives *bù* 不 and *fú* 弗 have to be distinguished according to their coda: A coda *-t has been reconstructed for *fú* 弗 whereas the negative *bù* 不 is reconstructed with either no coda, or, depending on the system of reconstruction of Old Chinese, a voiced velar coda. More relevant for the distinction between *fú* 弗 and *bù* 不, he/she adds that, according to a note of the Han scholar Hé Xiū 何休 in his commentary to the *Gōngyáng zhuàn* 公羊傳, the negative *fú* 弗 has to be considered an emphatic form of *bù* 不, which can indeed include a modal notion. However since no instances of the negative *fú* 弗 modifying *kě* (yǐ) 可 (以) are attested in the texts under investigation, this issue which is certainly of interest will not be pursued here.

⁵ These are the missing examples (4) and (5) in Part I.

⁶ Unless stated otherwise all translations of the Chinese examples are mine.

yet', 'not at all, never', and the modal negative *wú* 無 'not' can appear to modify the modal predicate. Although the negative marker *wèi* 未 has predominantly been analysed as an aspectual negative, it has been pointed out (Harbsmeier 1991, Meisterernst, 2008a) that it can also express modal notions depending on the semantics of the verb. In the following discussion, the syntactic and semantic constraints of a negated modal predicate will be analysed with particular regard to the position of the negative marker in relation to the modal auxiliary verb and to possible semantic differences evoked by the employment of a neutral or a modal negative marker. In the examples presented in the following section the different syntactic structures involved with the modal auxiliary *kě* 可 will not be distinguished since they all can, to the same extent, express different root modal values respectively, whereas epistemic modal values hardly ever turn up, as was shown in Part I.

2. THE MODAL VERBS *KĚ* 可 AND *KĚ Yǐ* 可以 IN COMBINATION WITH NEGATIVE MARKERS

2.1. Negation of 可 *kě* and 可以 *kě yǐ* by the modally neutral negative *bù* 不

The most important neutral negative – and the only one of relevance in the texts under consideration – is *bù* 不 (**pət*, **put*)⁷ which as a neutral negative simply denies the situation the verb refers to independently of the mode or the aspect of the verb. Although historically this negative was typical for intransitive verbal predicates establishing a descriptive relation between the subject and the predicate,⁸ in Classical and Han period Chinese it

⁷ All Middle Chinese reconstructions are taken from Pulleyblank (1991).

⁸ Djamouri (1991:15) remarks: "BU apparaît essentiellement dans des énoncés 'attributifs', s'appliquant soit à des verbes proprement intransitifs, soit à des caractérisants traduisant une propriété descriptive, en position prédicative, ...".

occurs with different kinds of verbal predicates. Two different positions are available for the negative *bù* 不: (1) preceding the auxiliary verb *kě* 可 and (2) preceding V2. Very frequent are instances of double negation, with the negative *bù* 不 both preceding the auxiliary verb and preceding V2, resulting in the expression of a strong deontic modality.

2.1.1. The negative *bù* 不 in the structure [*bù* 不 + *kě* 可 (以) + VP], *i.e.* [NEG V_{mod} VP]

Instances with a negative marker preceding *kě* 可 in general express the root modal (deontic) value of prohibition. They can refer to both an agent-oriented modality corresponding to an obligation in the affirmative: ‘must’, or a speaker-oriented modality, corresponding to permission in the affirmative: ‘may’.

a) [*Bù* 不 + *kě* 可 (以) + VP] expressing deontic modality, prohibition ‘CANNOT = must not’:

- (3) 以吾從大夫之後，不可以徒行。 *Shǐjì*: 67; 2210
 yǐ wú cóng dàifū zhī hòu, bù kě yǐ tú xíng
 because I follow dignitary SUB after, NEG can YI on.foot go
 ‘... since I follow the grand masters, I cannot / may not go on foot.’
- (4) 故君子不可須臾離禮，須臾離禮則暴慢之行窮外；
 gù jūnzǐ bù kě xūyú lí lǐ,
 therefore gentleman NEG can for.a.moment separate rite,
 xūyú lí lǐ zé bào màn zhī
 for.a.moment separate rite then cruel negligent SUB
 xìng qióng wài;
 behaviour exhaust outside;
 ‘Therefore the gentleman must not even for a while neglect the rites, if he neglects the rites even for a while, then cruelty

and negligence will be everywhere outside [from where the rites enter].’ *Shǐjì*: 24; 1237

In both examples the deontic modality of prohibition is expressed, corresponding in the affirmative to the agent-oriented modality of obligation. The matrix verb is intransitive in example (3) and transitive in example (4); in example (3) it is modally modified by *kě yǐ* 可以 and in example (4) by *kě* 可 alone. The agent in both examples is expressed and displays the feature [+human] and an adverbial phrase precedes the matrix verb. Contrastively, in the following example (5), which exhibits the same modal value as (3) and (4), the verb is passivized, and the patient displays the feature [-human].

- (5) 夷吾所居國國重，不可失也。 *Shǐjì*: 32; 1486
 Yíwú suǒ jū guó guó zhòng, bù kě shī yě
 Yiwu REL live country country important, NEG can neglect FIN
 ‘When Yiwu lives in a country, this country becomes important and must not be neglected.’

Examples (3)–(5) all exhibit agent-oriented modality and correspond to an obligation, whereas the determination of the following examples (6)–(8) as expressing agent- or speaker-oriented modality seems to be less straightforward.

- (6) 雖急不可以驅，柰何棄之？ *Shǐjì*: 7; 322
 suī jí bù kě yǐ qū, nài hé qì zhī
 even.if urgent NEG can YI drive forward, what.about abandon OBJ
 ‘However urgent our situation be, we cannot / must not hurry [too much]; how could we possibly abandon them (the children) / and there is no way of abandoning the children?’
- (7) 晉不可假道也，是且滅虞。 *Shǐjì*: 39; 1647
 jìn bù kě jiǎ dào yě, shì qiě miè Yú

Jin NEG can lend way FIN, this FUT/MOD destroy Yu
 ‘Jin must / may not be given permission to pass [through our territory], this would certainly destroy Yu.’

- (8) 秦虎狼，不可信，... *Shǐjì*: 40; 1728
 Qín hǔ láng, bù kě xìn
 Qin tiger wolf, NEG can trust
 ‘[The king of] Qin is like a tiger or a wolf; he cannot / must not be trusted.’

All three instances clearly express the deontic modality of prohibition, and although an agent-oriented interpretation corresponding to an obligation in the affirmative seems to be quite feasible, an interpretation of the modal value as corresponding to the speaker-oriented modality of permission cannot be excluded; particularly in example (8).⁹ In example (6), the verb following *kě yǐ* 可以 remains intransitive, whereas in (7), the ditransitive verb *jiǎ* 假 ‘lend someone something’, and (8) the transitive verb *xìn* 信 ‘trust someone’ are passivized.

Examples (9) and (10) evidently indicate a speaker-oriented prohibition corresponding to permission in the supposed affirmative. In example (9) the transitive verb is passivized whereas in (10), a transitive verb follows *kě yǐ* 可以. Both the patient in (9), and the agent in (10) display the feature [+human]

⁹ *Kě xìn* 可信 ‘can / may be trusted’ is one of the more frequently occurring combinations of *kě* 可 with a state verb in the *Shǐjì* which occasionally licences an evaluative analysis. Another example of the combination *kě* 可 + state verb involving an evaluative notion has been presented in part I (Meisterernst 2008b: 99, example (13)).

- (9) 忍人也，不可立也 · *Shǐjì*: 40;
1698¹⁰
rěn rén yě, bù kě lì yě
relentless man FIN, NEG can establish FIN
'He is a relentless person and cannot / must not be
established [as heir apparent].'
- (10) 師在制命而已，稟命則不威，專命則不孝，故
君之嗣適不可以帥師 ·
shī zài zhì mìng ér yǐ, bǐng mìng zé bù
army be.at decide order CON finish, receive order then NEG
wēi, zhuān mìng zé bù xiào, gù jūn zhī
authoritative, claim order then NEG filial, therefore ruler SUB
sì dí bù kě yǐ shuò shī
offspring son NEG can YI lead army
'In the army it is all just about issuing orders; but if someone
has to accept orders, then he is not authoritative, and if he
gives orders himself, then he is not filial; therefore the son of
a ruler cannot / must not lead an army.' *Shǐjì*: 39; 1643

In the following two examples (11) and (12) both interpretations of *kě* 可, expressing deontic modality or expressing root possibility, are possible. The matrix verb is transitive and the agent, specified in (11) but non-specified in (12), is [+human].

- (11) 臣聞敗軍之將，不可以言勇，亡國之大夫，
不可以圖存 ·
chén wén bài jūn zhī jiàng, bù kě yǐ yán yǒng,
subject hear defeat army SUB general, NEG can YI speak bravery,
wáng guó zhī dàifū, bù kě yǐ tú cún
perish land SUB dignitary, NEG can YI plan exist

¹⁰ This instance is a quotation from *Zuǒzhuàn*, *Wén* 1 (*Shísānjīng zhùshū* 1837 中).

‘I have heard that the general of a defeated army may not speak about bravery and the dignitaries of a perished country may not devise plans for maintenance.’ *Shǐjì*: 92; 2617

- (12) 樂終不可以語，不可以道古 *Shǐjì*: 24; 1222¹¹
 yuè zhōng bù kě yǐ yǔ, bù kě yǐ dào gǔ
 music finally NEG can YI discuss, NEG can YI talk antiquity
 ‘When the music is finished one may not discuss, nor talk about antiquity.’

b) [*Bù* 不 + *kě* 可 (以) + VP] expressing root possibility ‘CANNOT=cannot, could not’:

- (13) 河決不可復壅，魚爛不可復全。 *Shǐjì*: 6; 292
 hé jué bù kě fù yǒng, yú làn bù
 river burst NEG can again block, fish overcook NEG
 kě fù quán
 can again complete
 ‘[It was as if] a river had burst its banks and these could not be repaired again and fish were overcooked and could not be made whole again.’

In this example, *kě* 可 apparently expresses root possibility; no external circumstances are present as enabling conditions for the completion of the situation referred to by the matrix verb. The verb is passivized. The following example (14) is structurally quite similar to example (13).

- (14) 妾切痛死者不可復生而刑者不可復續，
 qiè qiē tòng sǐ zhě bù kě fù shēng ér xíng
 I sharp pain die NOM NEG can again live CON punish
 zhě bù kě fù xù
 NOM NEG can again continue

¹¹ This instance is a quotation from *Lǐjì, Yuèjì* (*Shísānjīng zhùshū* 1540 中).

‘I feel a sharp pain because the dead cannot be made alive again and those who have lost extremities by punishment (lit.: have been punished) cannot have them replaced.’ *Shǐjì*: 105; 2795

- (15) 頃襄王橫元年，秦要懷王不可得地， ...*Shǐjì*: 40; 1729
 Qǐng Xiāng wáng Héng yuán nián, Qín yāo Huái wáng
 Qing Xiang king Heng first year, Qin press Huai king
 bù kě dé dì
 NEG can get country
 ‘In the first year of Heng, king Qing Xiang, Qin put a lot of pressure on King Huai, but could not get the country.’

In this example, too, root possibility, maybe including a notion of ability, is expressed. The exact circumstances which prevent the situation from being completed are not determined. The specified agent, a state, can display both the features [-human] and [+human], since the name of a state can always also metonymically refer to the ruler of the state. The matrix verb following *kě* 可 is transitive.

Apparently all instances of *kě* (yǐ) 可 (以) negated by *bù* 不, the modally neutral negative, express root modal values. Negated by *bù* 不, the unambiguously deontic values in a narrower sense are more frequently represented than the root possibility values, in contrast to the same construction in the affirmative which predominantly represents root possibility values and less frequently deontic values in a narrower sense. Most of the examples indicate a clear prohibition which can either be agent-oriented, namely, corresponding to an obligation in the respective affirmative, or speaker-oriented, namely, corresponding to permission in the affirmative which agrees well with Peyraube’s analysis of the construction *bù kě* 不可 VP.¹² With the negated modal auxiliary *kě*

¹² Peyraube (1999: 40) “Of these four fundamental meanings of the auxiliary *kě*, the first one (expression of a permission, *i.e.* deontic modality) is the most

(yǐ) 可 (以), it can occasionally be difficult to draw a clear line between the agent-oriented and the speaker-oriented values.

2.1.2. The negative *bù* 不 in the structure [*bù* 不 + *kě* 可 (以) + *bù* 不 VP], i.e. [NEG V_{mod} NEG VP]

Double negation, namely, a negative marker preceding *kě* 可 and a negative marker preceding the matrix verb always expresses strong deontic modality. This usually codes a strong obligation ‘must’, while, in contrast to the affirmative construction, it never expresses root possibility.

(16) 故有國者不可以不知春秋， *Shǐjì*: 130; 3298
 gù yǒu guó zhě bù kě yǐ bù zhī chūn qiū
 therefore have state NOM NEG can YI NEG know spring autumn
 ‘Therefore, those who have a state / are responsible for a state must know the Spring and Autumn Annals ...’

(17) 大將軍尊重益貴，君不可以不拜。 *Shǐjì*: 120; 3108
 dà jiàngjūn zūn zhòng yì guì, jūn bù
 great general venerable important more honour, prince NEG
 kě yǐ bù bài
 can YI NEG bow
 ‘The great general is very important and is receiving more and more honours, you must show him your reverence.’

In examples (16) and (17) the agent of the strong obligation is specified and displays the feature [+human]. The title *jūn* 君 ‘prince’ refers to the addressee and corresponds to a polite second person pronoun. The verb is transitive in (16) and intransitive in (17). In the following example the agent is not specified, but it is

common one, especially this is always the meaning expressed by the negative form *bu kě VP, ...*”

quite obvious from the context that it is the addressee and corresponds to a second person pronoun. Between the second negative marker and the matrix verb an adverb and the reflexive pronoun *zì* 自 ‘self’ are inserted.

- (18) 旦日不可蚤自來謝項王 · *Shǐjì*: 7; 312
 dàn rì bù kě bù zǎo zì lái xiè Xiàng wáng
 morning day NEG can NEG early self come apologize Xiang king
 ‘You must come yourself early tomorrow morning and apologize to king Xiang.’

2.1.3. The negative *bù* 不 in the structure [*kě* 可 (以) + *bù* 不 VP],
i.e. [V_{mod} NEG VP]

Whereas examples (16) to (18) all exhibit double negation, in the examples (19) and (20) only the matrix VP is negated in a rhetorical question. The structure *kě* 可 NEG VP mainly appears in rhetorical questions, as has already been claimed for Classical Chinese by Liu (2000:94). Both examples clearly express the deontic modal value of obligation ‘must not?’ The agent in both instances displays the feature [+human], and the verb is an intransitive state verb.

- (19) 勢之於人也，可不慎與？ *Shǐjì*: 40; 1737
 shì zhī yú rén yě, kě bù shèn yú
 influence SUB at man FIN, can NEG careful FIN
 ‘And in using one’s power with regard to human beings, must one not be careful / one must be careful!?’

- (20) 子孫驕奢忘之，以亡其家，為人子可不慎乎！
 zǐ sūn jiāo shē wàng zhī, yǐ wáng
 son grandson arrogant extravagant forget OBJ, so forget
 qí jiā, wéi rén zǐ kě bù shèn hū
 its family, be man son can NEG careful FIN

‘The sons and grandsons are arrogant and extravagant and forget them (= the achievements of their ancestors) and so they ruin their families; [therefore], if one is someone’s son, is it then permissible not to be careful? = one has to be careful.’
Shǐjì: 33; 1520

2.2. Negation with the aspectual-modal negative *wèi* 未 in the structure [*wèi* 未 + *kě* 可 + VP], *i.e.* [NEG V_{mod} VP]

According to most grammars, the basic notion of *wèi* 未 is to denote a situation in the past which has not yet started or reached its completion at the reference time, usually glossed in Modern Mandarin by *méiyǒu* 没有.¹³ In this function as an aspectual negative marker *wèi* 未 selects, similar to *méiyǒu* 没有 in Modern Mandarin, an event as its complement.¹⁴ But for some occurrences, particularly in combination with modal verbs such as *néng* 能 ‘can, be able to’, *kě* 可 ‘can’, and *zú* 足 ‘suffice’, it is glossed by *bù* 不 and often denotes a situation which will never be completed or even occur.¹⁵ In these cases it can imply a tenseless categorical judgement¹⁶ which to a certain extent conforms with Harbsmeier’s (1981) analysis, who demonstrates that *wèi* 未 can adopt a logical function besides its so-called temporal or aspectual functions.¹⁷ As a modal negative, *wèi* 未 predominantly

¹³ A detailed analysis of the negative marker *wèi* 未, also in combination with modal verbs has been presented in Meisterernst (2008a).

¹⁴ The same has been shown for *méiyǒu* 没有 in a comprehensive study by Lin (2003).

¹⁵ Examples for this structure can be found *e.g.* in He *et al.* (1985) and in *Gǔdài Hànyǔ xūcí cídiǎn* (2000).

¹⁶ A similar analysis is provided in Dobson (1959: 43) who describes the difference between *bù* 不 and *wèi* 未 as follows: “The difference is between particular denial (an envisaged instance), and universal denial (all envisaged instances).” Accordingly, *wèi* 未 in these cases could be considered a universal negative.

¹⁷ Harbsmeier (1981:42): “In this section I want to demonstrate that there also is a non-temporal ‘gnomic’ use of *wei* which is naturally related to but clearly distinct from the basic *temporal* ‘not yet’. In this ‘gnomic’ sense, *wei* comes to mean ‘not

expresses a strong categorial denial. Instances with the negative *wèi* preceding *kě* 可 are quite frequent, but the negative is confined to the auxiliary verb, no instances of *wèi* 未 preceding V2 exist.

a) *Wèi* 未 expressing deontic modality ‘CANNOT = must not’:

In examples (21) and (22), the speaker-oriented deontic value of prohibition is expressed which would correspond to permission in the respective affirmative. They both refer to a context in which the prognostication of an oracle has to be considered and they both include an aspectual notion due to the situation type of the matrix verb. Both examples representing a deontic notion are quotations from Classical texts. Genuine Han period examples negated by *wèi* 未 expressing a deontic modal value are very difficult to find.

- (21) 未可以戚我先王 · *Shǐjì*: 33; 1516¹⁸
 wèi kě yǐ qī wǒ xiān wáng
 NEG can YI approach I former king
 ‘I must not approach our former kings (yet).’
- (22) 鼎之輕重，未可問也 · *Shǐjì*: 40; 1700¹⁹
 dǐng zhī qīng zhòng, wèi kě wèn yě
 tripod SUB light heavy, NEG can ask FIN
 ‘One must not ask (yet) about the heaviness / importance of the tripods.’

necessarily’, ‘not quite’, etc. like the non-temporal ‘still’ ... Gnomical *wei* will be seen to refer to a ‘logical’ rather than a temporal progression.”

¹⁸ This instance is a quotation from *Shàngshū, Zhōushū, Jǐnténg* 尚書 · 周書 · 金縢 (*Shísānjīng zhùshū* 196 上).

¹⁹ This instance is again a quotation from *Zuǒzhuàn, Xuān 3* (*Shísānjīng zhùshū* 1868 下).

b) *Wèi* 未 expressing root possibility ‘CANNOT=cannot, could not’:

In the following example *kě* 可 apparently expresses root possibility. External circumstances still deny the non-specified agent the expected knowledge expressed by the verb *zhī* 知 ‘know’. The matrix verb is passivized and the patient has the feature [+abstract]. According to the semantics of the verb *zhī* 知 ‘know’, a possible evidential notion of the modal cannot be completely excluded. However, in the negated structure, an interpretation as expressing root possibility is certainly more conclusive. Examples of the verb *zhī* 知 negated by *wèi* 未 are comparably frequent.

- (23) 客謂相國曰：秦之輕重未可知也。 *Shiji*: 4; 168²⁰
 kè wèi xiàng guó yuē: Qín zhī qīng zhòng wèi kě
 guest mean chancellor state say. Qin SUB light heavy NEG can
 zhī yě
 know FIN
 ‘The guest told the chancellor: “Whether Qin takes you lightly or seriously cannot be known (yet).”’

Altogether, most of the examples with *wèi* 未 clearly involve a temporal interpretation and express deontic modality, namely, a prohibition and almost all of them express the modal value of root possibility.

2.3. Negation with the modal negative *wú* 無 / 毋 in the structure [*kě* 可 + *wú* 無 + VP], i.e. [V_{mod} NEG VP]

The most important modal negative marker and the only one relevant in this context is *wú* (**mu*ǎ) 無 with its variants *wú* 毋 and *wú* 无 which originally represented two distinct morphemes: (1) a modal negative, correctly written *wú* 毋, and (2) a verb meaning

²⁰ *Wèi kě zhī* 未可知 is a very common phrase in Classical and Han period Chinese. It occurs frequently in the Classical literature.

‘not have’, correctly written *wú* 無 (or *wú* 无).²¹ As a modal negative it can express either root modal values or epistemic modal values.²² In the texts under consideration, most examples with the combination *wú kě* 無可 are followed by *zhě* 者. In these instances, *wú* 無 has to be analysed as verbal ‘not have’. The only instances relevant here are those with the structure *kě* 可 NEG VP. Whereas, the same structure *kě* 可 NEG VP with the negative marker *bù* 不 predominantly expresses rhetorical questions, as already mentioned, with the modal negative marker *wú* 無 statements are equally possible. In general, examples with the negative *wú* 無 (and its variant *wú* 毋) are quite rare.²³

a) *Wú* 無 / 毋 expressing deontic modality (obligation) ‘CANNOT = must / may not’:

The following two examples (24) and (25) both show the deontic modal value of strong obligation: in a rhetorical question in (24), only the matrix verb is negated, while in an affirmative sentence in (25), both the modal auxiliary verb and the matrix verb are negated. Similar to the examples doubly negated by the negative marker *bù* 不, in this instance, too, double negation implies a strong obligation. In example (24), the matrix verb is passivized, whereas in (25), following *kě yǐ* 可以, it is not. The agent in (25) is specified and [+human].

²¹ Regarding these variants, Pulleyblank (1995:107) notes that “The morphemes were already homophonous in late Zhou times and are confused in many texts such as the *Mencius*, but were very likely pronounced differently at an early period.”

²² This is the original function of the negative *wú* 毋 according to Djamouri (1991: 54). According to Takashima (1996), the *p*- and the *m*-negatives are historically distinguished (in the inscriptions) by the involvement of the will and the ability to control of human beings.

²³ The three examples in the *Shǐjì* with *wú lǐ* 無禮 will be left out here (with *kě yǐ* 可以: *Shǐjì*: 32; 1488 and 70; 2284; and with *kě* 可 *Shǐjì*: 42: 1765), since *wú* 無 in combination with *lǐ* 禮 very likely has to be analysed as verbal.

- (24) 楚雖無道，有臣若是，可無存乎！ *Shǐjì*: 66; 2177
 Chǔ suī wú dào, yǒu chén ruò shì, kě wú
 Chu even.if not.have way, have subject like this, can NEG
 cún hū
 preserve FIN
 ‘Chu may not have the right way, but it has subjects like
 these, is it possible that it may not be preserved / it must be
 preserved!’
- (25) 人果不可以無學，觀黯之言也日益甚。
 rén guǒ bù kě yǐ wú xué, guān àn zhī yán yě
 man really NEG can YI NEG learn, watch An SUB word FIN
 rì yì shèn
 day more bad
 ‘Men really must learn, according to your words it is getting
 worse daily.’ *Shǐjì*: 120; 3109²⁴

In the following example (26), the verb following *kě* 可 is intransitive, again, the deontic modal value of obligation is expressed: ‘you are obliged not to go’, but regarding the attitude of the speaker, an evaluative notion is certainly involved. Apparently, the notion of obligation in this example is secondary, i.e. a reanalysis of the notion of advice or exhortation which belongs to the (speaker oriented) deontic modal value of permission; the speaker does not have the official right to directly oblige the crown prince.²⁵

- (26) 界盜見太子白旄，即殺太子，太子可毋行。

²⁴ There are only five instances of *kě yǐ wú* 可以無 in the *Shǐjì*. This instance appears almost identically in *Hànshū*: 50; 2320 as one of only two instances. But the phrase *kě yǐ wú xué* 可以無學 also occurs in *Zuǒzhuàn*, Zhāo 18 (*Shísānjīng zhùshū* 2086 中).

²⁵ This analysis is owed to one of the anonymous reviewers of the article.

jiè dào jiàn tài zǐ bái máo, jí shā
 frontier brigand see crown prince white banner, then kill
 tài zǐ, tài zǐ kě wú xíng
 crown prince, crown prince can NEG leave
 ‘If the brigands at the frontiers see your white banner, they
 will kill you, you must not go.’ *Shǐjì*:37; 1593²⁶

b) *Wú* 無 / 毋 expressing root possibility ‘CANNOT=cannot, could not’:

Occasionally, modal predicates negated with the negative marker *wú* 無 can also indicate root possibility, but this notion is confined to the structure [*kě* 可 NEG VP]; double negation exclusively expresses strong deontic modality:

(27) 為敵弱，用力少而功多，可以毋盡百姓之
 勞，而序往古之勳。
 wèi dí ruò, yòng lì shǎo ér gōng duō, kě yǐ
 for enemy weak, use strength few CON success many, can YI
 wú jǐn bǎi xìng zhī láo, ér xù
 NEG complete hundred clan SUB effort, CON continue
 wǎng gǔ zhī xūn
 go antiquity SUB merit
 ‘Therefore my enemies are weak and without much effort the
 success will be great, and it will be possible without
 exhausting the strength of the people to continue the great
 merits of antiquity.’ *Shǐjì*. 43; 1806²⁷

²⁶ This is the only instance in the *Shǐjì*.

²⁷ This is the only instance in the *Shǐjì*, there is none in *Hànshū*. This instance is an almost literal quotation from *Zhànguó cè* 221/116/19.

3. CONCLUDING REMARKS ON THE MODAL AUXILIARY *Kĕ* 可 / *Kĕ Yǐ* 可 以 IN COMBINATION WITH NEGATIVES

This analysis of negative markers in combination with the modal verbs *kĕ* 可 and *kĕ yǐ* 可 以 has shown that three different structures involving negation are available for a modal predicate with *kĕ* 可: (1) [NEG V_{mod} VP]; (2) [V_{mod} NEG VP]; and (3) [NEG V_{mod} NEG VP]. Quite obviously, in the first structure the negative marker has wide scope, including the complete modal predicate, whereas in the second structure it has narrow scope, only including the matrix verb:

- (1) NOT [POSSIBLE that VP]
- (2) POSSIBLE [that NOT VP]

These distributions correspond to what Cormack and Smith label Pol[Neg], and Adv[Neg], roughly corresponding to sentential negation and verb phrase negation. (Cormack and Smith (2002:136f). In the first case, the entire proposition is denied whereas in the second case, only the VP is denied. The speaker-oriented modalities (speaker-oriented prohibition corresponding to permission in the respective affirmative) can only be expressed by the first structure: [NEG V_{mod} VP]. This leads to the hypothesis that speaker-oriented modalities always refer to the entire proposition, a hypothesis which has to be verified for the other modal auxiliary verbs in Chinese as well. Agent oriented modalities (agent-oriented prohibition corresponding to obligation in the respective affirmative), obligation, and root possibility, can in general be expressed by all three structures, but they are subject to certain constraints regarding the negative marker employed. With the third structure, the doubly negated structure [NEG V_{mod} NEG VP], only strong obligation can be indicated.

	<i>bù</i> + <i>kě</i> (<i>yǐ</i>)+V	<i>bù</i> + <i>kě</i> (<i>yǐ</i>) + <i>bù</i> +V	<i>kě</i> (<i>yǐ</i>)+ <i>bù</i> +V	<i>wèi</i> + <i>kě</i> (<i>yǐ</i>)+V	(<i>bù</i>) <i>kě</i> (<i>yǐ</i>) + <i>wú</i> +V
Root modality	+	+	+	+	+
Deontic: Prohibition (<>obligation)	+		+		+
Deontic: Prohibition (<> permission)	+			+	*
Deontic: Agent- oriented (obligation)		+ (strong)	+ (strong)		+
Root possibility	+			+	+
Epistemic					

Table 1. Structures involving negation of modal predicates with *kě*

Table 1 shows that although all structures with *kě* 可 and *kě yǐ* 可以 involving a negative marker exclusively express root modal values, most of them in the narrower sense of deontic values, they differ in the details. Most widely employed are structures with the simple neutral negation with *bù* 不 modifying the modal auxiliary verb: NEG V_{mod} VP (structure 1), since they can refer to agent-oriented and speaker-oriented values of prohibition and additionally to root possibility. Whereas in the affirmative, *kě* 可 and *kě yǐ* 可以 predominantly express root possibility values, and only exceptionally deontic values in a narrower sense, in the negative they predominantly express the deontic value of prohibition. According to the examples presented, the structure with a double neutral negative marker: [NEG V_{mod} NEG VP] (structure 2) exclusively expresses agent-oriented strong obligation, it never expresses root possibility. The structure with the neutral negative *bù* 不 modifying the matrix verb: [V_{mod} NEG VP] (structure 3) usually represents agent-oriented deontic values. The structure with the aspectual negative *wèi* 未 : [NEG V_{mod} VP] (structure 1) expresses speaker-oriented deontic modal values, but apparently in Han period texts the root possibility values, particularly with the

verb *zhī* 知 ‘know’, are more frequent. Structures with the modal negative *wú* 無 [(NEG) V_{mod} NEG VP] (structure 2 and 3) are in general quite rare and usually express agent-oriented modal values, *i.e.* the deontic value of obligation and occasionally root possibility.²⁸

Overall, there is an obvious constraint on the position of the negative marker regarding speaker-oriented modal values, namely, permission: these have to be represented by structure 1, [NEG V_{mod} VP], to the effect that the negative marker has scope over the entire modal proposition.²⁹ But evidently the modality of the negative marker in general does not seem to be indicative for the modal value of the predicate, although it must be admitted that – as is to be expected – the neutral negative *bù* 不 displays the widest range of employment of the negative markers under consideration. Additionally, the table shows that, although the deontic modal values are predominant in combination with negative markers as would be expected according to Traugott’s assumption that “older meanings tend to be maintained longer in negative environments” (1989:52), root possibility values are also attested and are even more frequent with *e.g.* the negative marker *wèi* 未. Neither a development from agent-oriented to speaker-oriented, nor from ability to root possibility, or from root to epistemic values, as has been claimed in Bybee *et al.*

²⁸ Example (26) can be regarded as a possible exception, since according to one of the reviewers, the modal value of obligation has to be considered a reanalysis of the modal value of permission; but the fact that the negation marker only has scope over the verb rather argues against an analysis as indicating a speaker-oriented modal value and supports the analysis of the example of indicating obligation.

²⁹ This corresponds well to what Cormack and Smith assume for their Modal₁ and Modal₂ contrast in English (2002:138): “In English, we find that the main division between Modal₁ and Modal₂ corresponds to the contrast between necessity and possibility, where obligation patterns with the former, and permission with the latter.” The position of the respective modals, with regard to the two different negation markers they represent is as follows (*ibidem*, (13)): “CT (Modal₁) Pol(POS/NEG) (Modal₂) (Adv[NEG]) ...” This means that in structures indicating permission the modal proposition is in the scope of the sentential negative which is exactly the case in structure 1 in Han period Chinese: [NEG V_{mod} VP].

(1994:240f) as the general paths of grammaticalization can be evidenced by the data from Han period Chinese in comparison with the data presented in Peyraube (1999).

As has been demonstrated in the first part of this study (Meisterernst 2008b), for affirmative sentences in Han period Chinese the predominant number by far of the instances of the verb *kě* 可 and its variant *kě yǐ* 可 以 expresses root modal values. Deontic values, both agent-oriented (obligation) and speaker-oriented (permission) are comparatively rare which does not necessarily argue against their status as being more basic than the other notions expressed; epistemic values are almost non-existent.³⁰ With *kě* 可, in the structure *kě* 可 *V*_{pass}, both values, obligation and permission, are simultaneously attested, whereas with *kě yǐ* 可 以, in the structure *kě yǐ* 可 以 *V*_{tr./itr.}, mainly the speaker-oriented value of permission is attested. In the structure *kě* 可 *V*_{tr./itr.}, similar to the structure *kě* 可 *V*_{pass}, again both deontic modal values, obligation and permission, are similarly attested. But by far the most instances of *kě* 可 and *kě yǐ* 可 以 equally express the root modal value of root possibility. This notion is apparently not derived from the notion of ability which also, but only occasionally, can be expressed by *kě* 可 / *kě yǐ* 可 以. The different modal values of *kě* (yǐ) 可 (以) in an affirmative sentence are represented in Table 2.

³⁰ In order to confirm this hypothesis, a detailed study of the semantics of *kě* 可 and *kě yǐ* 可 以 from the time of their first appearance would be required which goes beyond the purpose of the present study which focuses rather on a synchronic analysis of *kě* 可 and *kě yǐ* 可 以.

	<i>Kě</i> 可 + VP _{pass}	<i>Kě yǐ</i> 可 以 + VP _{tr/itr}	<i>Kě</i> 可 + VP _{tr/itr}
Deontic: agent-oriented (obligation)	+	(+) ³¹	+
Deontic: speaker-oriented (permission)	+	+	+
Root possibility (strong, weak): agent-oriented	+	+	+
Root: evaluative	(+)	(+)	(+)
Epistemic: Evidential, confined to evidential verbs	—	(+)	(+)

Table 2. The modal values of *kě* 可 and *kě yǐ* 可 以 in an affirmative sentence

According to the data, with the modal auxiliary verb *kě* 可 / *kě yǐ* 可 以 a development from the modal notion of ability to the modal notion of root possibility which in Bybee *et al.* (1994:240f) has been assumed to be the general path of grammaticalization cannot be confirmed. Interestingly, the synchronic data for *kě* 可 and *kě yǐ* 可 以 conform well with the synchronic data for CAN in English as presented in Coates (1983). In English as well, the predominant number of instances of CAN indicates root possibility (Coates 1983:25). In some of the instances presented, an evaluative notion is involved which according to Palmer (1986:121) belongs to the deontic modal values widely defined. Regarding epistemic

³¹ A plus sign in parentheses (+) indicates that a particular modal value is extremely rare, if existent at all. The modal value of obligation is extremely rare. This statement can be supported by Liu (1994: 384) who does not give any examples which express obligation for *kě yǐ* 可 以 + V.

notions, they hardly ever occur in Han period texts. Only a few instances, mainly in combination with verbs that licence an evidential interpretation, permit an epistemic interpretation, always confined to this evidential interpretation. Since this notion is already present in Classical Chinese, no development can be attested from deontic to epistemic notions from Classical to Han period Chinese.

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