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Prosodically Motivated Passive *Bei* Constructions in Classical Chinese

This paper argues for a prosodic account of the origin of *bei* passives in Classical Chinese.[1] It shows that the [*bei*-V] passives in Archaic Chinese (before 206 BC) were born as Prosodic Words (PrWds) and compounds motivated by the disyllabic foot formation. When disyllabic verbs developed in the Eastern Han dynasty (25-221 AD), [*bei* VV] forms began to appear. The prosodic system, however, does not allow a [σ-σσ] verb-complement structure to be PrWd and compound. The [*bei* VV] forms were thus analyzed as phrases, giving rise to the [*bei* [VP]] and [*bei* [NP V]] structures. It concludes that prosody not only motivates but also advances and further constrains syntactic structures in natural languages.

1. Introduction

The passive *bei* sentences in Modern Chinese have recently been divided into two types of constructions (Huang 1997, Ting 1995), namely, a long passive (with an agent NP) as shown in (1a) and a short passive (without the agent NP) as seen in (1b).[2]

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[1] The term Classical Chinese is used here as a cover term referring to the literary language in Archaic and Ancient Chinese. Archaic Chinese refers to the language used before the Qin Dynasty (220-206 BC), and Ancient Chinese refers to the language from the Han Dynasty (206 BC-220 AD) to the Tang Dynasty (618-907 AD).

[2] The following abbreviations are used in the glosses: ADV - adverb; PRT - particle; ASP - aspect; PROG - Progressive.

(1)   a. Zhangsan bei   ren   pian   le.
           Zhangsan bei   person   cheat   ASP
           'Zhangsan was cheated by someone.'

       b. Zhangsan bei   pian le.
           Zhangsan bei   cheat ASP
           'Zhangsan was cheated.'

It has been argued that the long passives are derived by a syntactic operation involving a null operator movement (Feng 1990, Cheng, Huang, Li, and Tang, 1993; Chiu 1995, Ting 1995). The short passives are structured by an A-movement (Li 1990, Ting 1995, Huang 1997). Given the two types of Modern passives, diachronic questions arise. Why are two different passive sentences formed by one passive morpheme *bei* in Mandarin Chinese? How do they come about?

It is well known that the earliest passive *bei* sentences in Archaic Chinese were [*bei* V] short forms in which the agent NP was not allowed to appear between the *bei* and the V (Wang 1980:425, Peyraube 1996), as shown in (2):

(2)   萬乘之國被圍於趙. 《戰國策 · 齊策》   (*Zhanguoce.Qice*)
       Wan   sheng zhi guo   bei   wei   yu   Zhao.
       ten.thousand   chariot 's   country bei   surround   by   Zhao
       'A state with ten thousand chariots was surrounded by Zhao.'

The [*bei* V] sentences look very much like the passive sentence in English in that the logical object occupies the subject position and the logical subject is introduced by a preposition. By the end of the Eastern Han Dynasty (25-220 AD), the logical subject was no longer introduced by a preposition but was instead inserted before the V, giving rise to the long passives, as seen in (3).

(3)   臣被尚書召問。蔡邕《被收時表》   (Cai Yong: *Beishou Shibiao*)
       Chen bei   Shangshu   zhao-wen.
       I   bei   Minister   call-ask
       'I, the subject, was questioned by the Minister.'

The question then is: Why in the early form, must the agent NP be introduced by a preposition? How could it later come to appear between the *bei* and the verb? What is the mechanism of this change?

In this paper I will provide a prosodic-syntactic analysis for the origin of the short and long passive *bei* sentences in Classical Chinese. I will argue that the Archaic [*bei*-V] forms (before 220 BC) were PrWds or compounds motivated by the newly established disyllabic foot formation. After the Western Han, as various types of PrWds were idiomatized and lexicalized, there were more and more disyllabic compound verbs. As a result, what was once a monosyllabic verb used in the [*bei*-V] could be alternatively expressed by a disyllabic verb in the same environment: [*bei* [σσ]$_V$] expressions begin to make an appearance in the language. Since the prosodic system does not allow [σ-σσ] verb-complement structures to be PrWds and compounds, the new [*bei* [σσ]$_v$] forms were therefore analyzed as phrases, hence, the new [*bei* [VP]] and [*bei* [NP VP]] structures were born.

This paper is organized as follows. Section 2 reviews previous analysis and provides background for the development of *bei* sentences. Section 3 argues that the [*bei*-V] forms in Archaic Chinese were prosodically motivated PrWds and compounds. Section 4 discusses the origins of the [*bei* [VP]] and the [*bei* [NP V]] structures, and section 5 is a summary of this study.

2.   Background and Previous Studies

It has long been observed (Wang 1980; Zhang 1994) that *bei* was originally a verb meaning 'to get' or 'to receive' in Archaic Chinese, as exemplified in (4):

(4)   a.   （荆柯）被八傷 。《戰國策 · 燕策》   (*Zhanguoce.Qice*)
                 (Jing Ke)   bei   ba   shang.
                 Jing Ke   receive   eight   wound
                 'Jing Ke was wounded in eight places.'

b. 申生孝而被殃。《楚辭·七諫》　　(*Chuci. Qijian*)
Shensheng xiao　　　er　　bei　yang
Shensheng filial.peity but　get　disaster.
'Shensheng was obedient, but he met with disaster.'

In the earlier part of the Warring States Period (475-221 BC), *bei* commonly appeared within a structure of [*bei* Modifier N], as seen in (5).

(5)　a. 天下被其利。《墨子·尚賢》　　(*Mozi.Shangxian*)
Tianxia bei　　qi　li.
World　receive its　benefit
'The world benefitted from it.'

b. 身被三累。《韓非子》　　(*Hanfeizi*.2.3.52)
shen bei　　san　lei.
body receive three trouble
'You got into three troubles.'

About the same time or little later, more and more disyllabic *bei* sentences appeared in the language, that is, the *bei* took only a bare noun and the [*bei* N] could possibly be reinterpreted as a [*bei* V], as seen in (6).

(6)　被戮　bei lu　got killed;　got a death penalty
　　被辱　bei ru　got insulted;　got an insult
　　被侵　bei qin　got invaded;　got an invasion

In the later part of the Warring States Period (475-221 BC), the agent NP was introduced by a preposition *yu*, as in (7):

(7)　a. 萬乘之國被圍於趙.《戰國策·齊策》　　(*Zhanguoce.Qice*)
Wan　　　sheng zhi guo　bei wei　　yu Zhao.
ten.thousand chariot 's　country bei surround by Zhao
'A state with ten thousand chariots was surrounded by Zhao.'

b. 被服於成俗。《史記 · 歷書》   (*Shiji.Lishu*)
  bei   fu   yu   cheng-su.
  bei   subdue   by   existing-custom
  '(people) were subdued by traditional customs.'

By the Han Dynasty (206 BC-25 AD), more and more trisyllabic *bei* forms had appeared in the language. For example (taken from *Shiji* (100 BC) and *Lunheng* (100 AD)):

(8)   被棺斂   bei guanlian   'was buried in a coffin'
         被毀謗   bei huibang   'was slandered'
         被累害   bei leihai   'was implicated'

Only starting from the Eastern Han (25-220 AD), could adverbs be used before the complement of the *bei*, indicating that the complement of *bei* became an independent VP. For example:

(9)   a. 橫被暴誅。 《吳越春秋 · 闔閭內傳》   (ca. 50 A.D.)
         heng   bei   **bao**   **zhu**.
         unexpectedly get   **violently**   **kill**
         'got violently killed for no reason.'
         (*Wuyuechunqiu.Helyuneizhuan*)

      b. 多被陰害 《太平經 · 樂怒吉凶訣》   (ca. 100 AD)
         duo   bei   **yin**   **hai**
         frequently get   **conspiratorially harm**
         'frequently got conspiratorially harmed.'
         (*Taipingjing.Lenujixiongjue*)

Only after the appearance of [*bei* ᵥₚ[Adv V]] (27-97 AD), was the long passive *bei* structure [*bei* ₁ₚ[NP V]] born (132-192 AD), as seen in (3). In other words, the postverbal oblique argument (i.e., the Agent NP) in (2) became a preverbal core argument in (3).

Considering the development of *bei* sentences outlined above, Wang (1980) first pointed out that the evolution of passive *bei* sentences started by Late Warring State Period (475-221 BC), as seem in (2), and was completed after the Han (200 AD) as seen in (3). Even though Wang noticed that the complement of *bei* has changed its syntactic category from an NP in (4) to a VP in (9), he

does not explain how the complement of *bei* could change its syntactic category from a noun to a verb or what might be the mechanism of the change.

Bennett (1981) argues that since nouns in Classical Chinese can be used as a verb without any overt morphological changes, if the NP in [*bei* NP] is formed by a bare noun, then the N will be interpreted as a V. Hence, the [*bei* NP] changes into a [*bei* V], as seen in (6) above and (10) below.

(10)   今兄弟被侵⋯知友被辱。《韓非子 · 五蠹》   (*Hanfeizi.Wudu*)
　　　　Jin   xiongdi bei   qin...   zhiyou   bei   ru...
　　　　Now   brothers get   invasion... friend   get   insult.
　　　　'Now brothers got invaded/invasions...friends got insulted/disgraces.'

In (6) & (10) *bei* with its complements can be analyzed as either a [*bei* N] or a [*bei* V]. What is important, Bennett (1981) argues, is that the ones that exhibit the property of being alternatively interpreted as either a [*bei* N] or a [*bei* V] are the ones formed only by the *bei* with an X^0 element. In other words, it is impossible for examples in (11) to have an alternative interpretation.

(11)   (荊柯)被八傷 。《戰國策 · 燕策》   (*Zhanguoce.Qice*)
　　　　(Jing Ke)   bei   [ba   shang]$_{NP}$.
　　　　Jing Ke   receive   eight   wound
　　　　'Jing Ke receive eight wounds.'
　　　　'*Jing Ke was wounded eight times.'

The complement of *bei* in (11) is an NP, but not an N. The argument made by Bennett can be formally captured by a principle of category changing. Category changing is a change of lexical head (i.e., X^0). The maximal projection could, and eventually will, change (from an NP to a VP, for example) if and only if the head X^0 changes first (from an N to a V, for example). This is to say that an XP cannot change first into a YP with the YP then forcing the head to change from X to Y. Theoretically, an XP is projected by its head; hence, the syntactic category XP is determined by its head X^0, rather than the other way around. Given Bennett's argument and the

Category Changing Principle, the [*bei* NP] forms in (11) can never be reanalyzed as [*bei* VP] directly. It follows that the actual change from examples in (4) to examples in (9) must have taken the following pathway:

(12) [*bei* NP]   →   [*bei* N/V]   →   [*bei* VP]
     Stage-1   Stage-2   Stage-3

Stage-2 is necessary for the transition from Stage-1 (i.e., (4)) to Stage-3 (i.e. (9)), because it is an N, rather than an NP, that functions as either a noun or a verb in the environment where the change takes place. In other words, the change from Stage-1 to Stage-3 is conditioned on a specific environment where the N/V alternation is structurally licensed.

Even though Bennett has correctly pointed out the necessity of Stage-2 for the change from NP to VP, he gives no explanation to how the necessary environment (i.e., [*bei* N/V]) is structurally licensed. According to Bennett the change from [*bei* N] to [*bei* V] is due to an arbitrary chance: when the NP in [*bei* NP] happens to be a bare N, the N will automatically be reanalyzed as a V. However, it is impossible, theoretically, to assume that the Category Changing Principle could apply wherever an X^0 element appears in the language. Empirically this is not true either. For example, the verb *ai* (meaning 'to receive', 'to suffer', exactly like *bei* in Classical Chinese) could form a passive sentence in Modern Chinese with an N complement, but the N cannot be reinterpreted as a V.

(13) a. *Zhangsan ai da   le   san   ci
        Zhangsan ai hit   ASP   three time
        'Zhangsan was hit three times.'

    b. *Zhangsan ai mama   da-zhe   ne.
        Zhangsan ai mother hit-PROG   PRT
        'Zhangsan is being hitting by his mother.'

    c. Zhangsan ai mama   de   da.
       Zhangsan ai mother 's   hit
       'Zhangsan was hit by his mother.'

In (13a-b), the complement *da* cannot take a frequency phrase or a progressive aspect, but ordinary verbs can. On the other hand, ordinary verbs cannot be modified by a possessive modifier, but the complement *da* can, as seen in (13c). This indicates that the complement of *ai* cannot be reinterpreted as a V, even though it appears as an X^0 category. It follows that the Category Changing Principle only provides a necessary but not sufficient condition for the change from [*bei* NP] to [*bei* VP].

In short, previous analyses have contributed important chronologies for the development of [*bei* V] and [*bei* NP V], and they also provide a necessary condition (i.e., the [*bei* X^0]) for the development of N→V in *bei* passives in Classical Chinese. However, they provide neither structural analyses for the mechanism of the change nor internal explanations for the emergence of the [*bei* VP] and [*bei* IP] structures. Most importantly, examples in (8) and (9) are ignored in previous studies. As we will see below, these examples are extremely important for a structural analysis in which the internal mechanism of the syntactic change can be properly captured. Moreover, they are crucial in explaining why one can find the [*bei* Adv V] structure only after the Western Han and why the [*bei* IP] appeared only after the [*bei* VP].
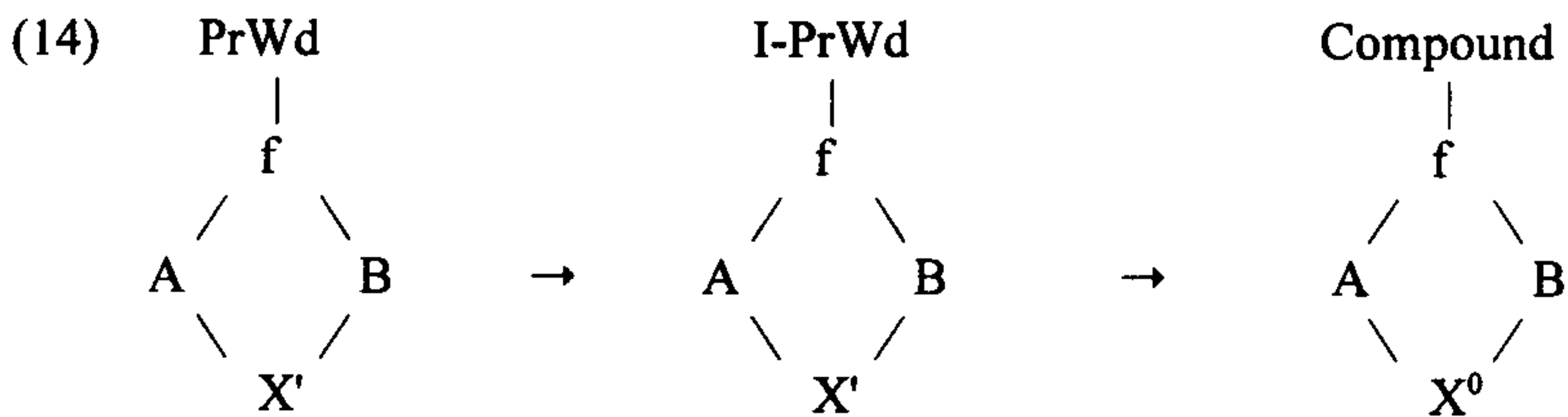
3.   PrWd and [*bei*-V] Compound in Archaic Chinese

Although previous analysis has captured the category change from N to V in [*bei* N/V], one fact seems not to have received enough attention in the literature: examples that can be alternatively interpreted as either a [*bei* N] or a [*bei* V] are all disyllabic, as seen in (6) and (10). In other words, only disyllabic [*bei* X] ('X' stands for either a noun or a verb) forms are recognizable for an alternative

interpretation of [*bei* N/V].[3] Based on this fact, I argue in this section that the disyllabic [*bei* V/N] forms were not formed arbitrarily but are a result of a PrWd or a compound motivated by the prosodic system of the language. This can be seen from the following analysis.

First, it has been widely recognized that disyllabic forms began to appear in the language during the Warring States Period. The development of disyllabicity, according to Feng (1995, 1997a), was chiefly due to the newly established disyllabic foot formation, which is caused by the loss of bimoraic feet in Old Chinese (c. 1000 BC). This is to say that the disyllabic [*bei* V] forms are merely instances of a more general development of disyllabicity in the language.

Second, according to Feng (1997a), compounds in Classical Chinese are instances of PrWds; hence, a compound must first be a PrWd, even though a PrWd is not, by necessity, a compound. This is shown in the following tree diagrams (The 'I-PrWd' stands for Idiomatized PrWd; see Feng (1997a: 239)).

(14)

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     PrWd                    I-PrWd                   Compound
      |                        |                         |
      f                        f                         f
    /   \                    /   \                     /   \
  A       B      →        A       B        →        A       B
    \   /                    \   /                     \   /
     X'                       X'                        X⁰
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A PrWd must be realized on a foot according to the Prosodic Hierarchy (McCarthy & Prince 1993), and a standard foot in

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[3] There were trisyllabic [*bei* N] forms before the Han, however, they are not recognized as [*bei* V]. For example:

厚者入刑罰，薄者被毀醜。《墨子・貴義》

Hou zhe ru xingfa,   bo zhe bei huichou.

thick one enter punishment, thin one get condemnation

'The ones who are kind get punishments and the ones who are mean get condemnations.'

As pointed out by Wang (1980:425), the *huichou* is a noun, rather than a verb.

Classical Chinese is disyllabic; therefore PrWds must also be disyllabic and so must be compounds. Given the prosodic requirement of disyllabicity and the resulting PrWds and compounds, the [*bei* X] forms can therefore be considered a result of PrWd development in the language, because they meet the prosodic morphological requirement to be a PrWd.

Third, given the development of compounds from PrWds in (14), it is natural to expect that when the [*bei* X] PrWds are repetitively used in the language, the two elements (*bei* and X) will be fixed, forming an Idiomatized PrWd. This will further lead to Lexicalization under which the [*bei* X] becomes a compound. Given this, we can conclude that the sufficient condition for the change from [*bei* N] to [*bei* V] is the prosodic morphological operation, i.e., the formation of PrWds and Compounds. This operation involves not arbitrary chances but a structurally categorized environment where the complement of *bei* is forced to be of the X^0 category. In this circumstance the Category Changing Principle could apply constantly, and the reanalysis of the N as a V, as seen in (12), could take place naturally during the processes of idiomatization of a PrWd and lexicalization of a compound. In sum, the new requirement of disyllabicity forces the [*bei* N] phrase into a PrWd (one foot). In the [*bei* N] PrWd, the N may first be idiomatized and then lexicalized with *bei*. The former results in a fixity of the two elements, and the latter observes the Lexical Integrity Hypothesis — no intervention is allowed between the parts of a word.[4] The idiomatization and lexicalization together give rise to the [*bei* N] disyllabic units. Within the idiomatized PrWd and compound, the N is always a monosyllabic element and hence guaranteed to be an N^0 category structurally. Under this analysis it is natural to expect the reanalysis of [*bei* N] as [*bei* V] because the 'category changing through head' is now licensed by the prosodic morphological structure.

There is strong evidence supporting this analysis. First,

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[4] The LIH can be formally stated as follows: No phrasal-level rule may affect a proper subpart of a word. (Huang, 1984: 60).

theoretically, the X in [*bei* X] must initially become a V (or at least a gerund), thereafter an adverb can be used in front of it, as in (9). If so, the [*bei* X] forms in (6) must have been interpreted as either a noun or a verb. Note that without the alternative stage of [*bei* N/V], it would be impossible for new generations to come up with a different (i.e., the [*bei* V]) grammar from the old ones (i.e., the [*bei* N]). It is also difficult to conceive how an adverb could suddenly be allowed in the [*bei* N]. In short, there must be an intermediate stage in which the [*bei* X] forms can either be interpreted as a [*bei* N] or a [*bei* V]. The necessary [*bei* N/V] alternation supports the analysis given above, because the alternative interpretation can only be observed in disyllabic, not trisyllabic [*bei* X], environments, as seen in (10) and footnote (3). The disyllabic environment can therefore be formalized as a condition under which the change from [*bei* N] to [*bei* V] takes place:

(15) $N \rightarrow V$ / [*bei* __]$_{PrWd/Compound}$

It follows that the [*bei* N/V] forms must be PrWds or compounds, otherwise there is no way to license the disyllabic [*bei* N/V] environment.

The examples given in (16) also provide evidence for the present analysis. In Classical Chinese we find that in some [*bei* N/V] forms, no modification of either kind (adjectival or adverbial) is allowed between the *bei* and the following element.

(16) a. 被圍於趙。《戰國策·齊策》   (*Zhangguoce.Qice*)
          bei   wei   yu   Zhao.
          'was surround by   Zhao'

      b. *被趙之圍
          *bei   Zhao zhi   wei.
          'receive Zhao 's   surrounding'

c. *被末圍於趙。

*bei	wei	wei	yu	Zhao
'was	not	surround	by	Zhao'

The non-existent (16b) shows that *bei wei* 'got surrounded' may have been lexicalized as a [*bei* N] compound, otherwise there is no reason why adjectival modifiers are not found within *bei wei*. Of course, one may argue that *bei wei* may have changed into a [*bei* V] structure and that adjectival modifiers are therefore not allowed before the V. If this is so, it is still difficult to explain why no adverbs are found between *bei* and the following V, as shown in (16c). Actually, no adverbs of any kind have been found inside these disyllabic [*bei* X] forms before the Warring States Period (or even before the Eastern Han), which indicates that these forms were compounds or at least idiomatized PrWds.

Third, as pointed out by Jiang (1994), the sentence given in (17) is different from the one given in (7).

(7) 萬乘之國被圍於趙. 《戰國策 · 齊策》　　(*Zhanguoce.Qice*)

Wan	sheng	zhi	guo	bei	wei	yu	Zhao.
ten.thousand	chariot	's	country	bei	surround	by	Zhao

'A state with ten thousand chariots was surrounded by Zhao.'

(17) 邾婁人常被兵于周。《左傳 · 昭公 · 30》　　(*Zuozhuan.Zhao.30*)

Zhulou	ren	chang	bei	bing	yu	Zhou.
Zhulou	people	often	bei	army	at/by	Zhou

'The Zhulou people often are invaded by Zhou.'

These two sentences are alike, yet, as Jiang (1994: 224) pointed out, whereas *wei* in (7) functions more like a verb, *bing* in (17) is a noun. However, if the syntactic structures of (7) and (17) are identical, as Jiang argued (i.e., [[*bei* X]$_V$ PP]), and if *bing* can also be used as a verb (see (18)), the question is why *wei* in (7) functions more like a verb but *bing* in (17) does not.

(18)   兵其從兄。《左・昭・1》   (*Zuozhuan*, 400 BC)
       bing   qi   congxiong.
       attack   their cousins
       '(Someone) attacks their cousins.'

While the non-verbal interpretation of *bing* here may be attributed to a variety of reasons, there is a clear structural reason for its nominal usage in (17). Note that *bei wei* in Classical Chinese was always used as a PrWd, but *bei bing* was not, as seen in (19).

(19)   a.   被吾甲兵。《左・桓・31》   (*Zuozhuan.Huan.31*)
            bei   wu   jia   bing.
            receive my   armor   weapon
            '(I) will wear my armor and carry my weapon.'

       b.   將軍市被圍公宮。《史記》   (*Shiji.*1557-2)
            Jiangjun   Shi   bei   wei   gong   gong.
            General   Shi   get   surround   Lord's   palace
            'The General Shi was surrounded at the Lord's palace.'

The non-disyllabic environment excludes [*bei...bing*] from being a PrWd and hence gives it no chance to become a compound. *Bei bing* does **sometimes** appear as a disyllabic unit, however, unlike *bei wei*, *bei bing* was not **always** used as a disyllabic unit (19a). The occasional co-occurrence of *bing* with *bei* may have made *bei bing* difficult to be idiomatized and may have blocked it from being a morphological category. Hence, *bing* did not undergo the process of category changing from an N to a V in [*bei* __]. The difference between *bei bing* and *bei wei* is not that *bing* cannot be used as a verb and *wei* cannot be used as a noun, but crucially because they have two different syntactic structures in our analysis:

(20)   a.   [[*bei-wei*]$_V$ [yu Zhao]$_{PP}$]$_{VP}$
       b.   [[*bei bing*]$_{V'}$ [yu Zhou]$_{PP}$]$_{VP}$

Bei-wei is a PrWd and compound, while *bei bing* is still a V' category. This may be the reason why *wei* in [*bei* __] functioned like a verb, but *bing* did not.

The last piece of evidence comes from Modern Chinese. In Mandarin Chinese, there are many [*bei*-V] passive compounds (Ting 1995), for example:

(21) a. bei-bu   'be arrested'
      b. bei-po   'be forced'
      c. bei-dao   'be stolen'
      d. bei-dong   'be moved, passive'
      e. bei-gao   'be accused, defendant'

However, there are no passive compounds that are formed by other passive morphemes such as **jiao-bu* 'be arrested', **rang-po* 'be forced', **ai-gao* 'be accused'. Why cannot other passive morphemes form a compound? Where does the unique property of *bei*-compound come from? Given the PrWd and compound origins of the Archaic *bei* forms as seen above, the question can be answered naturally. The modern [*bei*-V] compounds are remnants of classical compounds. Note that even though the modern [*bei*-V] compounds can be explained in terms of remnants, a question still remains: why are there no remnants of other type of passive compounds, but only *bei*? The peculiar behavior of *bei*-compounds in Modern Chinese implies that there must be a historical stage that *bei* developed independently from other passive morphemes in terms of their morphology and syntax. Precisely the [*bei*-X] forms must have been structured as a compound once in the history, so that in Modern Chinese [*bei*-V] compounds can be formed according to the old prosodic morphological structure. In that case, we must find out where, when, and how *bei* is able to form a compound with its complement. Given the chronological order of *bei* developments, i.e., [*bei* NP] → [*bei* N/V] → [*bei* [VP]], it is natural to see that the compound status of *bei* forms was established during the change from [*bei* N] to [*bei* V]. That is, the *bei* passive was born as a PrWd or a compound.

Based on all the evidence above, I conclude that the [bei N/V] Archaic forms are PrWds or Compounds.

4. Prosodically motivated [*bei* NP V] structure

We have seen in section 2 that the [*bei* [NP V]] structure started to appear in the Eastern Han. A question we must ask now is how the Archaic [*bei*-V] compounds developed into the Ancient [*bei* NP V] structure. Since the [*bei*-V] is a PrWd or a compound, how, after the Western Han, is the agent NP allowed to be inserted into a compound? In other words, what motivates the change from a compound ([*bei*-V]) to a phrase ([*bei* [NP V]])?

Traditionally, the new Post-Han structure [*bei* $_{IP}$[Agent V]] has always been considered a result of deleting the possessive marker *zhi* in the old form [*bei* NP's N].[5]

(22) 被眾口之譖   被眾口譖

bei	zhongkou	zhi	chan	→	bei	zhongkou	chan
get	mass-mouth	's	libel		get	mass-mouth	libel

'receive people's libel.'   'was libeled by people.'

While this seems an easy way to relate the two constructions, there are good reasons to reject such an analysis. First, the [*bei* $_{NP}$[NP's N]] and the [*bei* $_{VP}$[NP V]] are two different structures, even though their surface order looks similar. Structurally, the [NP's N] is headed by a noun, while the [NP V] is headed by a verb. Dropping the possessive marker *zhi* in [NP's N] would not change a noun-headed category into a verb-headed category. Second, examples given in (13) show clearly that it is impossible for *da* 'hit' in *ai mama de da* 'got mom's hit' to become a verb in *ai mama da* 'get mom hit'. Thus it is highly unlikely that the [*bei* IP] was derived

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[5] See Wang (1980) and Yakhotove, S. E. (1986). Shimura also proposes that (Translated by S.-L. Feng):

In *Liang zi bei Sujun hai* (亮子被蘇峻害 《世說・方正》)
"Liang's son got Sujun harm", Sujun is a proper noun, hence has more property of being a noun, so that *hai* 'harm' can be understood as a verb and become a predicate, giving rise to the [*bei* NP V]. (Shimura 1974: 20)

However, it is not clear at all why *hai* 'harm' should be understood as a verb when a proper noun modifies it.

directly from the [*bei* ₙₚ[NP's N]].

In order to see how the [*bei* IP] comes about, it is worthwhile to look again at the diachronological development of *bei* sentences (see examples (3-9)):

(23)   ca. 400 BC   (i)   [*bei* NP]
       ca. 300 BC   (ii)   [*bei* N/V]$_{PrWd/Compound}$
                      (iii)   [[*bei*-V] PP]
       ca. 100 BC   (iv)   [*bei* VV]
       ca. 100 AD   (v)   [*bei* ᵥₚ[Adv V]]
       ca. 200 AD   (vi)   [*bei* ᵢₚ[NP V]]

Considering (ii) and (iv), it is clear that while the V in [*bei*-V] of (ii) is a part of a PrWd and compound, the [*bei* VV] is not a PrWd and hence cannot be a compound (see (14)). In (v), an adverb was used before the [V], indicating that the [Adv V] is a VP embedded under *bei*. Given (v), I argue that the [*bei* ᵢₚ[NP V]] in (vi) is not derived from (ii) by inserting an Agent NP in the [*bei*-V] forms; instead, (vi) is developed on the bases of [*bei* ᵥₚ[Adv V]], i.e., the Agent NP is inserted before the VP. In fact, the Agent NP is not allowed to be inserted before the V in (ii) because, in our theory, the [*bei*-V] is a compound, thus the Agent NP must be introduced as an oblique argument by a preposition as in (iii). On the other hand, since the VP is an independent active clause embedded under *bei* (see Feng, 1997b), the only way for the VP to have an Agent is to form a [NP VP] structure. First, Agent theta role is thematically higher than other theta roles in the Thematic Hierarchy. Second, according to the Linear Correspondence Axiom (Kayne 1994), the Agent NP must appear in a Spec VP position, i.e., to the left of the VP. Thus, the Agent NP, if it appears, must occur before the VP in the [*bei* VP] phrasal passives, giving rise to the [*bei* [NP V]] structure.[6] Under this analysis, the question we must now ask is not why the agent NP could appear before the embedded VP (it must), but how the V — a part of compound in (ii) — becomes an independent VP clause, as in (v). This question is dealt with in the

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[6] I would like to thank one of the reviewers for pointing out this question.

next section.

4.1. The Origin of the *[bei* VP] structure

In this section, I will propose that it is the [*bei* [σσ]$_V$]] structure that motivates the syntactic change from [*bei*-V] compounds to [*bei* [VP]] phrases. The argument made here claims that prosody determines what can and what cannot be a morphological category. As seen above, the development of compounding in Classical Chinese is due to the newly established disyllabic foot formation. Under the prosodic system of Classical Chinese, the number of VV compounds, together with other types of compounds (i.e., NN, MH and VO compounds, see Cheng 1981) developed rapidly after the Han. However, there were no trisyllabic verb compounds that were found at that time. It is also true that no trisyllabic V-C(omplement) compound has been found in the language, even if three syllable V-C phrases are very common. There is no length constraint on phrases. This indicates that although there was a strong force to create disyllabic verb compounds in the language, trisyllabic verb compounds were disallowed by the prosodic system.[7] It follows that the prosodic system has a dual function. First, it forces disyllabic V-C phrases to become PrWds and compounds. Second, it prevents trisyllabic V-C phrases from being PrWds and compounds.[8] This, as seen below, is exactly what has happened in the *bei* passives in Classical Chinese.

We have seen that the disyllabicity requirement created the [*bei*-V] as a compound and that the prosodic system has produced not only [*bei*-V] but also other VV compounds during the Western Han. A remarkable consequence of the disyllabicity is an entirely new set of vocabulary: a great number of ordinary monosyllabic verbs now have a disyllabic counterpart (Feng 1997a). This

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[7] In Modern Chinese there are no VVV compounds either (see Feng 1997a).

[8] The reader is referred to Feng (1995a: Ch-3; 1996) for a detailed explanatory analysis on this topic.

happened especially during the Eastern Han Dynasty (25-220 AD).
For example:

(24) a. 被謗   bei bang   'got slandered'   (*Shiji*,2482.4)
          被毀謗   bei huibang   'got slandered'   (*Lunheng*, 2.4.13)

      b. 被刑   bei xing   'got executed'   (*Hanfeizi*,14.4.48)
          被刑戮   bei xinglu   'got executed'   (*Lunheng*, 80.13.2)

      c. 被戮   bei lu   'got executed'   (*Shiji*.31.32.2)
          被刑戮   bei xinglu   'got executed'   (*Shiji*, 2566.4)

As a result, what was expressed by a [*bei*-V] form before can now
be expressed by a new [*bei* VV] pattern. However, the [*bei* VV] and
the [*bei*-V] are two different prosodic structures, as shown in (25)
(the V stands for 'verb' and C for 'complement').

(25)   PrWd   *PrWd
              /   \   /   \
             V   C   V   C
            bei   hai   bei   huo-hai
             | | | /   \
             σ   σ   σ   σ   σ

More importantly, the two prosodic structures, as seen before,
represent two different grammatical categories: The [*bei*-V] is a
morphological category because it is a PrWd and hence a legitimate
compound. Yet the [*bei* VV] cannot be PrWd and compound; rather
it can only be a phrasal category. As a result, the [*bei* VV] forms are
forced by the prosody to give rise to a new [*bei* VP] structure. This,
I argue, is what allows the [*bei*-V] passives to be developed into
[*bei* VP] phrases. Of course, another crucial question is: Is it really
true that trisyllabic V-C structures cannot be compounds but can be
only phrases? As seen below, there is strong evidence from both
Modern and Classical Chinese supporting this analysis.

First, in Modern Chinese a monosyllabic verb with a disyllabic
complement can never form a compound. There are no [σ-σσ]$_V$
compounds that have been attested in the language, though there are

many $[[\sigma]_V [\sigma\sigma]]$ forms that look like compounds. For example:

(26) a. kai   wanxiao
       make   joke
       'make jokes.'

    a' kai   ta   de   wanxiao
       make   he   's   joke
       'make fun of him.'

    a" *kai   wanxiao   ta
       make   joke   him
       'make fun of him.'

    b. pao   mogu
       soak mushroom
       'dawdle.'

    b' Ni   yijing pao le   san tian mogu   le.
       you already soak ASP three day mushroom ASP
       'You were dawdling for three days already.'

In (26), although the Vs with their complements are highly idiomatized, all the V-C expressions must be analyzed as idiomatized phrases rather than as compounds, given that modifiers can easily be inserted before the complements, which is an obvious violation of the LIH (Huang 1984). On the other hand, disyllabic V-C compounds are very common in Chinese. For example:

(27) a. de-zui
       get-guilt/blame
       'get guilt/blame (to offend).'

    b. Ta   de-zui   le   laoban.
       he   get-guilt/blame ASP boss
       'He offended his boss.'

    c. *He de   le   yici zui.
       He   get ASP once guilt/blame
       'He caused offense (to someone) once.'

Dezui must be considered a compound, because it can take an object and cannot be separated. Why then do trisyllabic V-C forms in (26) behave differently from the disyllabic ones in (27)? The answer is clear: Only disyllabic V-C forms (PrWds) are possible to become a compound, while the trisyllabic ones (non-PrWds) cannot. The prosodic system determines whether a V-C string can or cannot become a compound, because a compound must first be a PrWd in Chinese (Feng 1995).

Second, the following *bei* passive forms in Modern Chinese provide further evidence for the hypothesis that only disyllabic, not trisyllabic, V-C strings can be lexicalized as compounds:

(28) a. Zhangsan bei   bu   le.
          Zhangsan bei   arrest   ASP
          'Zhangsan was arrested.'

      a'. *Zhangsan bei   jingcha bu   le.
          Zhangsan bei   police   arrest   ASP
          'Zhangsan was arrested by the police.'

      b. Zhangsan bei   bu-huo   le.
          Zhangsan bei   arrest-catch   ASP
          'Zhangsan was arrested.'

      b'. Zhangsan bei   jingcha bu-huo   le.
          Zhangsan bei   police   arrest-catch   ASP
          'Zhangsan was arrested by the police.'

bei-bu in (28a') is a disyllabic form, and hence it respects the LIH (no intervention is allowed between *bei* and *bu*). Yet the LIH is totally ignored in the trisyllabic ones. The fact is, only (if not all) disyllabic [*bei* V] forms obey the LIH. In contrast, all trisyllabic [*bei* VV] forms can be intervened by an agent NP. This shows, once again, that only disyllabic [*bei* V] forms are qualified to be a compound, while the trisyllabic [*bei* VV] forms are incapable of being a PrWd, let alone a compound.

Third, the argument that trisyllabic V-C forms are phrases but not compounds is also supported by the Classical example in (9).

(9)   横被暴誅。《吳越春秋‧闔閭內傳》   (*Wuyue Chunqiu*)
       heng   bei   bao   zhu.
       unexpectedly get   violently   kill.
       'was violently killed for no reason.'

It is clear that the [*bei* [Adv V]] forms are [*bei* VP] phrases, because an adverb can freely appear before the V. This indicates that the [Adv-V]$_{oo}$ must be an independent VP. Accordingly, the trisyllabic [*bei* [Adv V]] cannot be a lexical, but a phrasal, category.

Given all the evidence from both Classical and Modern Chinese, there is no doubt that the disyllabic [*bei*-V] forms are different from the trisyllabic [*bei* VV] forms in the language. The difference can be captured in terms of a morphological category (PrWd and compound) versus a syntactic category (phrase). The [*bei* VV] and [*bei* Adv V] structures will thus be considered as newly developed [*bei* VP] structures, and hence the development of [*bei* NP V] could be further motivated.

4.2. Further Remarks

Given the theory presented here, we can now explain why it took so long (about 400 years, from 300 BC to 100 AD) for the phrasal passives to develop. The long process is necessary. For one thing, the [*bei*-V] disyllabic compounds were motivated by the prosody; hence, they were also protected by the prosody. For another, unless some new prosodic factors developed a role in the language, the PrWd would not allow the monosyllabic V to be separated from the *bei*. As expected, the separation is indeed triggered by a new prosodic factor, namely, the newly developed trisyllabic [*bei* VV] forms that are triggered by the sharply increased disyllabic verbs at the time of the Eastern Han. Since the prosodic system disallows a trisyllabic V-C structure from being a compound, a separation of the disyllabic VV from the *bei* is inevitable under the development of [*bei* VV] forms. Obviously, for such a new prosodic factor to take effect, the separation-process must wait for the full development of disyllabic verbs. This is why it took so long for phrasal passives to evolve and this is why the separation-process

could only emerge by the Eastern Han.

Interestingly, contrary to the slow progress from the morphological passive ([*bei*-V], ca.400 BC) to the phrasal passive ([*bei* [Adv V]], ca.100 AD), the long passive structure [*bei* [NP V]] (200 AD), as seen in (3), was established soon after the appearance of the phrasal passive [*bei* [Adv V]]. This is also expected. When the V becomes a VP in [*bei* [Adv V]], as seen before, the Agent NP cannot be introduced by a preposition; instead, it must appear before the VP, yielding the [*bei* [NP VP]] structure. In other words, it is the [*bei* VP] that gives rise to the [*bei* [NP VP]]. This is why the [*bei* [NP VP] must wait for the rise of the [*bei* VP], and it is why once the [*bei* VP] emerges, the [*bei* [NP VP]] is developed.

There is also another reason why the Agent NP is favored in the [*bei* VP] structure. The Agent NP could create a clear structural boundary between the *bei* and its complement and hence could add more prosodic weight to the embedded predicate in order for the VP to be completely independent of *bei*. For one thing, the Agent NP could enable the embedded clause to form an IP,[9] making the [*bei* VP] structurally distinguishable from the compound passive. For another, the Agent NP could force the verb to be deeply embedded under and linearly separated from the *bei*, making the [*bei* VP] prosodically impossible to be reanalyzed as compound when the embedded VP is formed by a single monosyllabic verb (see footnote (10) below). Given the structural possibility and the prosodic preference of the appearance of the Agent NP in [*bei* VP], the quick development of the [*bei* IP] after the [*bei* VP] is therefore expected.

Although phrasal passives, including the long passive, can be attested as early as the late Han dynasty (ca. 100-200 AD), they were not productive until 300-400 years later, in the Six Dynasties (420-581 AD) (see Tang, 1987; Mei, 1990). They did not become the dominant passive construction until the 10th Century (the Tang-

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[9] The embedded IP is indeed what has been proposed for the long passive sentences in Modern (and Classical) Chinese in terms of an A'-movement analysis (see Huang 1997).

Song Dynasties). Why was this? While the lower productivity and slower progress may be attributed to a variety of reasons (see Wei, 1994), there is a clear internal reason for their further developments, given the assumption that phrasal passives were triggered by prosody and hence should also be accelerated by prosody.

We have seen that heavier verbs are the triggers for phrasal passives. We also know that a phrase with a complex structure is prosodically heavier than one with a simple structure (see, Rickford, Wasow, Mendoza-Denton, & Espinoza, 1995). Thus, if the language developed a more complex verbal predicate after the birth of the [*bei* VP] and [*bei* NP V], the phrasal passives would be more satisfied and hence more productive. What is interesting is that (i) only by the Six Dynasties did the Verb-Resultative (and other complex) predicates begin to appear in the language as seen in (29-I) and (ii) the phrasal *bei* passives also started to be more productive during the Six Dynasties, as pointed out by Wei (1994).

(29) **I. VR verbs**

a. 二師并皆打死。《旌異記・珠林・85》
   er shi bing jie   da-si. (*Jinyijizhulin.85*)
   two master all   hit-death
   'The two masters were both hit to death.'

b. 乃打死之。幽明彔《太平廣記・438》
   nai   da-si   zhi. (*Taipingguangji.438*)
   then hit-die   him.
   'then killed him.'

II. *bei* passives

a. 樹被風吹倒。(闍那崛多譯《佛本行集經》727)
   shu   bei   feng chui-dao. (*Fobenxingjijing.727*)
   tree   get   wind blow-fall
   'The tree was uprooted by the wind.'

b. 禰衡被武帝謫爲鼓吏。《世說・言語》

Mi Heng   bei   Wu   Di   zhe   wei   gu-li.
Mi Heng   get   Wu   emperor   relegate become   drum-officer
'Mi Heng was relegated by Emperor Wu to become a drum-officer.'
(*Shishuo Xinyu. Yanyu*)

The parallel appearances of phrasal passives and complex predicates (V-R, V-NP, V-PP, V-NP-VP...etc., see Wei, (1994)) show clearly that the heavy predicates have advanced the development of phrasal passives. Under the hypothesis that phrasal passives favor a heavy verbal predicate, and given the fact that by the Six Dynasties verbal predicates were more complex than before, it is not surprising that there were more phrasal passives in the language.

As many new complex predicates developed during the 10th Century (aspectural markers, [V-*de* S] structures, and *ba* constructions...etc.), the *bei* passives were produced more extensively and finally became the dominant passive construction in the language. As a consequence, the heavy predicate requirement resulted in a general ban on monosyllabic verbs in the [NP *bei* NP V] long passive construction.[10] Even though it is difficult to date exactly when this happened, in Modern Chinese a monosyllabic verb is clearly banned in [NP *bei* NP V] long passive construction, as seen in (30).

(30) a. *Ta   bu   xiang   bei   ren   da
        he   not   want   bei   one   hit.
        'He does not want to be hit by someone.'

     b. Ta   bu   xiang   bei   ren   piping.
        he   not   want   bei   one   criticize
        'He does not like to be criticized by someone.'

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[10] The [*bei* VP] will not be affected by a monosyllabic verb simply because if the VP is consisted of a monosyllabic verb only, the result would be a [*bei* σ] disyllabic unit which is prosodically indistinguishable from the [*bei* V] (PrWd) and hence could be a perfect compound passive.

In our theory, the ban on monosyllabic verbs in long passives is a natural result of the historical development of the [*bei* V] structure. Originally the V in the [*bei*-V] compound passive had to be heavier than a monosyllabic verb in order to become a phrasal passive [*bei* VP] structure. When the Agent NP was introduced into the embedded VP, the VP was forced to be even stronger. Since the newly developed VR structure and other complex predicates satisfy this requirement, there were more phrasal passives in the language. By 10th century, when aspectual markers, [V-*de* S] structures and the Ba-constructions were born, the V-predicate was syntactically guaranteed to be more complex than ever. The phrasal passives thus became dominant and a ban on monosyllabic V in long passives was inevitable.

5.   Summary

In this paper I have argued that the [*bei*-V] forms in Archaic Chinese were born as a PrWd or compound motivated by the prosodic requirement of disyllabicity. The disyllabicity, in turn, motivated the [*bei* VV] and [*bei* Adv V] phrases, giving rise to the [*bei* VP] structure. The VP in [*bei* VP] had to be prosodically heavier in order to be an independent active clause. The requirements for heaviness and independence of the VP finally motivated the [*bei* [NP VP]] structure where the complement [NP VP] was an IP and hence obviously heavier than a VP.

Based on this analysis, [*bei*-V], [*bei* VP] and [*bei* NP VP] structures can all be viewed as prosodically motivated syntactic structures. It was the prosody that forced the [*bei* N/V] into a compound, and it was also the prosody that separated [*bei* VV] into phrases. The higher productivity of phrasal passives was provoked by prosody, and the ban on monosyllabic verbs in long passives also resulted from prosody.

Since both the compound passive ([*bei*-V]) and the phrasal passive ([*bei* VP] and [*bei* NP VP]) are prosodically motivated, both are constrained by the prosody. The phrasal passives cannot contain a verb of less than two syllables, otherwise either (i) an

ungrammatical sentence will be caused in long passives as seen in (30), or (ii) an indistinguishable structure will result between the [*bei*-V] compound and the [*bei* VP] phrase (see footnote (10)). On the other hand, the compound passive cannot have a verb of more than two syllables as seen in (28), otherwise it will become a [*bei* VP] structure. The present analysis is consistent with the fact that only disyllabic [*bei* V] forms are accessible to the process of lexicalization; hence trisyllabic [*bei* VV] passives should all be considered a phrasal category.[11]

To sum up, the present study not only offers a diachronic explanation for the origin of the *bei* passives but also provides historical evidence for synchronic analyses of *bei* passives, explaining why the [*bei* VV] forms are better to be treated as a phrasal category and why there is a general ban on a monosyllabic verb in long passive constructions in Modern Chinese. The present study also shows that syntactic explanations must be combined with a prosodic analysis in order to account for the grammar of natural sentences and the syntactic changes of natural languages.

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[11] In traditional analysis lexical passives in Modern Chinese are all disyllabic forms and no one has claimed that trisyllabic forms such as *bei pi-ping* 'be criticized', *bei dai-bu* 'be arrested'...etc. are compounds. The traditional treatment confirms my analyses given here. (see McCawley (1992), Feng (1997b) for different accounts of the short passives.)

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