A Comparison of Verb Compounding in Old Japanese and Classical Chinese

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Abstract

This paper is dedicated to examining the formation of verb compounds in Old Japanese and Classical Chinese. The findings reveal that the syntax-lexical semantics interface mainly facilitates the formation of verb compounds in both languages. Verb compounds in Old Japanese are assigned to a relatively loose relation, giving rise to coordinate and successive patterns being prominent options. Moreover, conveying the result of an action via substantive verbs appears at a high frequency. In Classical Chinese, it is noticed that combinatory patterning seemed to favour successive and predicate-complete patterning. The coordinate device appeared later than the predicate-complement option. Successive patterning occurs far more prominently in Old Japanese than it does in Classical Chinese. Furthermore, verb weakening is observed in both languages.

Keywords: Old Japanese, Classical Chinese, Verb compounds, Verb weakening, Grammaticalisation

1. Introduction

The study of verb compounding in Old Japanese and Classical Chinese is of particular interest in relation to diachronic studies for at least two reasons. First, morpho-syntactically speaking, Modern Japanese and Chinese are quite distinct: Japanese is more agglutinating, while Chinese is more isolating. Japanese employs a versatile inflection system to convey tense, aspect, voice and modality, which, in Chinese, are expressed by particles or by word order. However, if attention is paid to a century ago, the Japanese language employed Chinese characters to represent on paper vernacular Japanese. It remains for us to ponder whether perhaps the two languages share certain similarities.

The syntax of Old Japanese (7th and 8th century AD) and Classical Chinese[1] has been studied a good deal (Baxter and Sagart 1998, Frellesvig 2010, Hashimoto 1987, Hyakutome 2001). Previous research particularly focuses upon word order, case system, etc. A few issues still remain unanswered; for instance, the combination of the multi-constituents in Old Japanese appears rather loose, appearing to receive equal syntactical and morphological weight. This brings us to the issue of whether multiple verbs in Old Japanese are assigned to an associate relation, rather than a compounding relation.

In Chinese, verb compounds have also come a long way from Old times; for example, many words that are considered resultative complements in Modern Chinese bear substantive content in Old and Classical Chinese. Furthermore, the vocabulary of the Chinese language has undergone a long-term evolution. From the warring states period (551 BC-479 BC) till the unification of Qin (221 BC), the Chinese language consisted of a monosyllabic root, to which affixes were attached. From the Han period (202 BC), disyllabic word roots appeared, such as nominal compounds, verbal compounds and compound particles. Example (1) is taken from *Han Shi Wai Zhuan* (韩诗外传 206 BC–9 AD), whereby 出 *chū* appears as a resultative complement to the action verb 走 zou.

(1) 莊公 　　　 **走² 出**， 踰 於　外牆

　　 Zhuanggong zou chu,　 yu yu　 waiqiang

　　 Zhuanggong run out cross over exterior wall

　　 'Zhuanggong ran out and crossed over the exterior wall.'

<div align="right">(Han Shi Wai Zhuan)</div>

A similar verb compound option is seen in Old Japanese, as exemplified by (2):

(2)大野山　　紀利 **多知和多流** 和何 那宜久 於伎 蘇乃 可是 尔　紀利 **多知和多流**

Ohno yama　　kiri **tachi wataru** waga nageku　oki　sono kaze　ni　kiri tachi tawaru

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[1] Classical Chinese is a language used from the Warring States Period (500–200 BC) to the Han Dynasty (206 BC–220 AD). This paper particularly focuses upon Classical Chinese, in that compound words developed a good deal during this era.

[2] 走 in Classical Chinese means 'run'. In contemporary Chinese, it means 'walk'.

Ohno mountain fog rise-spread   I NOM sigh   interval that wind PASS fog rise-spread.CONCL

'In the Ohno mountain, the fog rose up and spread. I sighed, and during this interval, the wind blew the fog and made the fog rise again.'

(MYS.5.799)

The multi-verb construction 多知和多流 *tachi-wataru* ('rise-spread') is composed of two unaccusative verbs. 多知 *tachi* and 和多流 *wataru* are all motion verbs.

Given this, the second issue that arises immediately is to what extent the two languages draw distinctions between and share similarities with respect to verb compounding.

This paper examines data from Old Japanese and Classical Chinese, to provide a better picture of the combinatory patterning of verb compounds across languages and shed light on three issues:

(a) Establishing which verbs tend to appear in preceding or later positions.

(b) Whether verbs that appear in the later position (i.e. V2) receive a certain degree of grammaticalisation. Wherever possible, we intend to measure the degree of their grammaticalisation.

(c) The constraint in the process of verb compounding.

To address the above issues, this paper is mapped out as follows. Section 2 gives a brief introduction to the languages in focus; this serves as the starting point of this study. Moreover, it provides an insight into the methodology as well as data collection. Section 3 uncovers the formation of verb compounds in Old Japanese, enumerating the possibilities of formation and grammaticalisation. Section 4 turns to Classical Chinese, looking at the combinatory patterning as well as constraints. Furthermore, it searches for the verb weakenings that lie in the language. Finally, Section 5 highlights the combinatory conditions of verb compounds and concludes the paper.

2. Methodology

This paper wanted to inquire into how similar or contrasting Old Japanese and Classical Chinese are when it comes to forming a verb compound. A thorough frequency analysis would be a great help in achieving the goal. This paper is primarily interested in the existence, use and frequencies of each combinatory pattern. The quantity between Old Japanese and Classical Chinese examples might be different due to fathoming the data of Classical Chinese handedly.

The data for Old Japanese come from: *Kojiki kayō* (古事記歌謡, AD 712), *Nihon shoki* (日本書紀, AD 720)，*Bussokuseki-ka* (仏足石歌, after AD 753), *Man'yōshū* (万葉集, after AD 759). The data for Old Chinese were collected from *Analects* (论语 BC. 700), *Mencius* (孟子

BC. 475-BC. 221), *Xunzi* (荀子 BC.313-BC.238), *Book of Rites* (礼记 BC. 475 – BC. 221),

Hanshu (汉书 BC. 206 – AD.23), *Han Shi Wai Zhuan* (韩诗外传 B.C.206 – AD. 9),

Shuoyuan (说苑 BC. 206-AD. 9), *The Book of Rites edited by Dai De* (大戴礼记 BC.206 –

AD. 220), *Shiji* (史记 BC104-BC91). This paper also uses the Oxford Corpus of Old

Japanese: http://vsarpj.orinst.ox.ac.uk/corpus/ that is provided by the Center of Japanese
Language and Linguistics, University of Oxford. The analysis and glossing of Old Japanese
examples follow Frellesvig (2010).

3. Old Japanese

Before attempting to see how a verb compound in Old Japanese is built, it seems appropriate to
provide an overview of Old Japanese syntax. Firstly, the word order had two variations: (i) A
bare object must appear strictly adjacent to the verb; (ii) A *wo*-marked object must move over
the subject (Yanagida 2006). Secondly, the writing system of Old Japanese needs particular
attention. The Japanese language employed Chinese characters to represent on paper
vernacular Japanese before the development of the purely phonetic script '*hiragana*' (in the
late 800s AD). *Kojiki*, the oldest extant chronicle in Japan, is written in a mixed
Chinese-Japanese script, which is termed *hentai-kanbun* 'variant Chinese'. Variant Chinese
refers to a script that is a combination of Chinese and a phonetic transcription of Japanese.
Nihon shoki is the second oldest book of classical Japanese. It was written in classical
Chinese, due to it being the official language at that time. *Man'yōshū* is the oldest collection
of Japanese poetry and was written in *man'yōgana,* where three patterns of the borrowing of
Chinese characters are used, i.e. solely borrowing semantic meaning, solely borrowing
phonological value, and borrowing both semantic and phonological values (c.f. Li 2012).

3.1 Verb compounding in Old Japanese

Given this background, this section discusses the formation of verb compounds in Old
Japanese. Our starting point is the combinatory possibilities. Then, we will move on to
exploring if there is a trend suggesting the development of verb compounding shifting from
one pattern towards another. It also intends to find out if grammaticalisation occurred as early
as Nara period (710-794).

A preliminary investigation (Li 2013) has observed that verb compounds in Old Japanese can
have the following variations:

(3) a. Coordinate V-V

    b. Successive V-V

    c. Modifier-predicate V-V (V1 modifiers V2)

    d. Predicate-modifier V-V (V2 modifiers V1)

e. Predicate-complement V-V

In light of this rough classification, we are now in a position to enumerate the combinatory possibilities.

3.1.1 Coordinate pattern [v' V [V-V]]

The coordinate type appears to be a common option for building verb compounds in our database. A typical example would be (4):

(4) 石橋　　　　**生　靡　留**　　玉藻　　　毛　　叙

　　ipapasi <u>ni</u>　　opwi-nabik-keru　　tamamo　　mo　　zo

　　stepping-stone grow-bow.ADN water-weeds FOC　FOC

　　'The gem weed that grows on the bridge of stone)'

(MYS.2.196)

The compound 生靡留 *opwi-nabik-yeru* is composed of two non-scalar [3] change morphemes, i.e. V1 *opwi* ('grow') and V2 *nabiku* ('wave'). The two morphemes bear similar meaning and scalar properties. They can be considered a synonymous lexicon. Furthermore, the events represented by V1 and V2 are classified as being in the same category (i.e. both of them are change-of-state events). Given this, syntactically and semantically, the two morphemes seem to receive an equal weight. This paper suggests that the verb compounds in (4) are of the coordinate type.

This option is also seen outside the *Man'yōshū*. In *Kojiki Kayō* (vol. 1.28), it occurs about six times, as exemplified below:

(5) 比登　佐　波　爾　　岐伊理袁理　比登　佐　波　爾　　伊理袁理　　登母...

　　 pito　sa　pa- ni　　**ki-iri-wori**　pito　sa　pa- ni　　**iri-wori**　　tomo

　　people ADV TOP COP come-exist.INF　people ADV TOP COP come-exist.CONC

　　'Many people come in. But no matter how many people come in.'

(KK. 10)

(6)　伊勢　能　宇美　能　意斐志　爾　　波比　母登富呂布

　　　ise　no　umi　no　opwisi　ni　**papi- motoporopu**

　　　Ise　COP　sea　GEN big rock　DAT crawl-around.CONCL

　　　'Like periwinkle, crawling around the big rock of Ise sea.'

(KK. 13)

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[3] According to Kennedy (2001) and Kennedy and McNally (2005), a scale is constituted by a set of degrees (points or intervals indicating measurement values) on a particular dimension (e.g. cost, depth, height, temperature), with an ordering relation.

(7)　許 能　　麻　　　用 母　　　伊由岐　麻毛良比

　　　ko no　　ma　　ywo mo　　**i- yuki- mamorapi**

　　tree GEN interval here and there　　PREF-go-see.INF

　　　'Shuttling in the intervals of trees, fight while keeping an eye on the enemy.'

　(KK. 14)

(8)　意能　　　　賀　袁　袁　　奴須美　斯勢牟　　登

　　　ono　　　　ga　wo　wo　**nusumi- sise-mu**　to

　　one's own GEN life　ACC　　aim-kill.CONJ　　COP

　　　'Does he try to kill himself?'

(KK. 22)

3.1.2 Successive pattern [v' V [V-V]]

The following example is an illustration of successive patterning, whereby V2 succeeds V1:

(9)　佐韋　賀波　用　久毛　　**多知　知多理**

　　　sawi　gapa　ywo　kumwo　**tati- watari**

　　　Sai　river　ITJ　cloud　　rise-cross.INF

　　　'Marry the older, and the first person who reaches the top of the mountain.'

(KK. 20)

This option can also be detected in *Man'yōshū*:

(10)　物乃布　能　八　十氏　河　尒　　玉藻成　　**浮倍　流　礼**

　　　mononopu　no　ya-　swoudi　gapa　ni　　tamamonasu　**ukabe-nagas-ere**

　　　Samurai　GEN many　clan　river　DAT　　seaweed　　float-flow.PASS

　　　'Many people throng into the river to work like seaweed.'
　　　　　　(MYS.1.50)

(11)　夏　　　能　能　　佐由利　**比伎宇恵空**

　　　natu　no　　now　no　sa-yuri　**piki-uwete**…

　　summer Gen　field Gen　　lily　　pick-plant

　　　'I plant a lily of the field in summer time.'

(MYS. 4113)

In (9)-(11), V1: 多知 *tati* ('rise'; unaccusative verb), 浮倍 *ukabe* ('float'; unaccusative verb), 比伎 *piki* ('pick'; transitive verb) and V2: 知多理 *wataru* ('cross'; unaccusative

verb), 流 *nagasu* ('low'; transitive verb), 宇恵空 *uwete* ('plant'; transitive verb) are assigned a successive relation. The successive patterning contains the following different argument structures:

(12) **Argument structure of successive V-V**

    a. unaccusative V + unaccusative V

    b. unaccusative V + transitive V

    c. transitive V + transitive V

The free combination yields the claim that the two constituents receive equal morphological and syntactic weight. This leads us to deduce that the verb compounds in Old Japanese probably assign to a loose relation than that in Early Middle Japanese, a stage of the Japanese language used in the Heian period (794–1185).

It is important to note that the successive option is declined in Modern Japanese. Instead, the V-Vs of the above in Modern Japanese are likely expressed in the form of a 'participle complex predicate (V-te-V)'. Incorporating this, it seems appropriate to posit that the change of writing system that occurred in Early Middle Japanese does have responsibility for it.

In addition, successive patterning is also productive in Classical Chinese. This is to be tackled in detail in Section 4.

3.1.3 Modifier-predicate pattern [v' V [M-V]]

The following examples are illustrations of modifier-predicate verb compounds:

(13) 佐吉母利　能　保理江　**己芸豆流**　伊豆　手夫祢

    Sakimori   no   Poriye   **kogiduru**   Idu   tebune.

    frontiersman Gen   horie row-go-out   izu   boat

  'The boat of the Izu style that the frontiersmen row down from Horie.'

                                    (MYS. 4336)

(14) 用流　能　伊昧仁　越　**都伎提**　　**美延許層**

    Yworu no   ime-ni   wo   **tugite**   **miye-koso**.

   Night GEN dream-in ACC continue.CONT appear.EXCL

  '(I hope) you will appear in a dream in the darkness of the night.'

                                    (MYS. 3108)

A salient property of this formation patterning is that it involves two verbal forms: a main verb, denoted by V2, and an adverbial verb denoted by V1. This option appears relatively productively in Old Japanese: we found 15 examples in the *Man'yōshū*, and 10 in the *Kojiki*.

3.1.4 Predicate-modifier pattern [v' V [V-M]]

There is another variation of modifier-predicate V-V, almost equally as preferably used and productive as the above one, i.e. the predicate-modifier V-V.

(15) 引 馬　　野 尓　仁保布　　榛原　　　**入乱**

　pikuman　wo　ni　nipopu　paripara　**iri-midare**

　Hikuma Plain　DAT beautiful bush-clover push through-freely

　　'Pushing freely through the bush-clovers, flowering on Hikuma plain.'

(MYS.1.57)

In (15), V2 乱 *midareru* ('freely') plays the role of modifying the action verbs conveyed by V1s 入 *iru* ('push through').

3.1.5 Predicate-complement pattern [v' V [V-C]]

In the following illustrations, result is conveyed in a complement relation pattern of V-V, which is composed of a cause verb V1, denoting an action, and a stative verb V2, expressing a state or the result of the action.

(16)和賀　意富岐美 阿良多麻 能　　登斯　賀　　**岐布禮　婆**　阿良多麻能　都紀　波 **岐閇由久**

　　wa ga　opo-kimi　aratama no　tosi　ga　**ki-pure　ba**　aratama　no　tukwi　pa **ki-pe-yuku**

　I GEN　lord　　uncut gem COP　year GEN come-pass.PROV uncut gem COP moon TOP come-go

　　'Oh, my lord, if the year comes and passes…'

(KK. 28)

(17)　奈尓波刀 乎　**己歧 泥弓**　美例 婆

　Nanipatwo　wo　**kogi-dete**　　mire-ba

　Naniwa Bay ACC　row-out　see-CONJ

　'When (we) row from Naniwa Bay…'

(MYS. 4380)

(18)　四　　　　舶　　　早　**還　来**　　　　等　　白香

　yu-tu no　pune　　paya　**kapyeri-ko**　　　　to　　　shiraka

　four COP　boat　　fast　return-come.IMP　COMP　perfume

　著　　朕　　　裳　　　裙　　尓　**鎮而**　　将帯

tuke waga   mo   no   suswo   ni   ipapite   matamu

attach   I GEN   skirt   GEN   hem   DAT   pray   wait CONJ

'Four boats come back fast, attaching perfume on my skirt, I will wait praying.'

(MYS. 4265)

The above verb compounds indicate motion events. They are composed of a main verb and a directional complement [v' [C+V]]. The following illustration is a change-of-state event, whereby the compound *furimagau* ('fall-scatter') is composed of an unergative verb and an unaccusative verb. V1 *furu* 'fall' contributes to the action and V2 denotes the result *magau* ('scatter').

(19) 矢釣 山   木 立 不見   **落 乱**

    Yatsuri yama   ko   dachi momiezu   furi magau

    Yatsuri mountain tree stand see-NEG.INF   fall-scatter

    雪   驪   朝 樂 毛

    yuki ni sawakeru ashita tanoshi mo

   snow.DAT enjoy   morning happy.CONCL

'The snow is falling down and it scatters. It must be a happy thing to see the trees of Yatsuri mountain being covered by snow tomorrow morning.'

(MYS.3.262)

Crucially, a verb weakening is seen in the second constitute *furimagau* 'fall-scatter'. Incorporating this, it seems appropriate to posit that V2 is a resultative complement. Therefore, we tentatively propose that change-of-state verbs that indicate result of an action, goal of a motion, are likely to become grammaticalised, and thus appear in the later position, exhibiting verb weakening. Their meanings are metaphorised, i.e. either indicating a resultative state or spatial motion.

3.2 Verb weakening in Old Japanese

The phenomenon of verb weakening is worth commenting upon. It is noticed that the following verbs are likely to appear in the later position: いづ *idu* ('exit'), 渡す *watasu* ('cross'), 来る *kitaru* ('come'), ゆく *yuku* ('push'), 紛う *magau* ('scatter'), 付く *tsuku* ('stick to').

The frequencies of the above verbs appearing in the preceding or the later position are given in Table 1.

Table 1. Frequency of idu, etc. appearing in the preceding/later position

Lexicon	Preceding position	Later position	Total	Percentage of Later position
ゆく *yuku* 'push'	25	48	73	66%
来る *kitaru* 'come'	2	37	39	95%
渡す *watasu* 'cross'	6	30	36	83%
付く *tsuku* 'stick to'	5	21	26	81%
いづ *idu* 'exit'	4	24	28	86%
紛う *magau* 'scatter'	9	29	38	76%

Table 1 indicates the following issue: verbs that are likely to appear in the later position are grammaticalised, i.e. either indicating a resultative state or spatial motion. In this regard, we might draw a conclusion that grammaticalisation could have the following two variations:

(I) Verbs that are grammaticalised and thus indicate a spatial motion:

いづ *idu* ('exit'), 渡す *watasu* ('cross'), 来る *kitaru* ('come'), ゆく *yuku* ('push')

(II) Verbs that are grammaticalised and thus indicate a resultative state:

紛う *magau* ('scatter'), 付く *tsuku* ('stick to')

The following verbs are likely to appear in the proceeding position: 打つ *utsu* ('hit'), 引く *hiku* ('pull'), 過ぎ *sugi* ('pass'). The frequency of these verbs appearing in the preceding position as well as the later position are the given in Table 2.

Table 2. Frequency of utsu, etc. appearing in the preceding / later position

Lexicon	Preceding position	Later position	Total	Percentage of Proceeding position
過ぎ *sugi* 'pass'	12	6	18	67%
引く *hiku* 'pull'	21	5	26	81%
打つ *utsu* 'hit'	27	8	35	77%

As seen from the frequency, verbs such as 過ぎ *sugi* ('pass'), etc. are likely to appear in the preceding position, which further indicates that their agentivities are somehow reduced. Li (2013) observes that when it comes to Early Middle Japanese, the degree of their grammaticalisation was deepened, and they generally bore null agentivity and often appeared as prefixes. More intriguingly, in Modern Japanese, these prefix-like lexicons are 'degrammaticalised' as they are used as action verbs, coming to bear relatively strong agentivities.

3.3 Summary

This section was devoted to the formation of verb compounds in Old Japanese. The finding reveals that verb compounding mainly occurs at the syntactic level. A variety of combinatory patterning has been identified. The patterning and their frequencies are given in Table 3:

Table 3. Variation of combinatory patterning of verb compounds in Old Japanese[4]

Combinatory patterning	MYS	KK	NSK	BS
a. Coordinate V-V	32	15	6	4
b. Successive V-V	14	8	9	6
c. Modifier-predicate V-V	15	10	0	0
d. Predicate-modifier V-V	9	11	0	0
e. Complete relation V-V	12	9	0	0
Total	82	53	15	10

Table 3 reveals that the frequency of coordinate patterning is considerably higher in comparison to other devices of combinatory. Use of the successive device is seen in all of the documents, although it is rather more limited. This directs our attention towards an assumption that the combination of the two constituents in Old Japanese appears relatively loose. The two constituents, in other words, seem to receive equal weight syntactically and morphologically. With this in place, we can pause and draw a preliminary conclusion here: due to the writing system (i.e. Old Japanese employs Chinese characters to represent vernacular Japanese on paper before the development of the purely phonetic hiragana script), verb compounding appears to resemble Classical Chinese in some way. And along with the emergence of the purely phonetic script hiragana in Early Middle Japanese, 'variant Chinese' and man'yōgana gradually disappeared, with the syntactic similarities between Chinese and Japanese declining.

4. Verb compounding in Classical Chinese

During the Han Dynasty, compound words developed extensively; this, perhaps, has to do with the development of the disyllabic foot. And this is the main reason that Classical Chinese is focused on in this paper. In this section, we first take a brief look at previous studies on Classical Chinese linguistics, then move on to verb compounding patterns. Finally, the section investigates the grammaticalisation.

In the historical study of Old Chinese, a key figure must be mentioned: Bernhard Karlgren. He pioneered the application of western historical linguistics to Chinese. His reconstruction of the language of the Qieyun rhyming dictionary of 601 AD (1915-26) led to the discovery of the relations between morphology and syntax in Classical Chinese. Another dominant figure is Shengli Feng, who contributes to a discussion on Chinese compound words in Packard's (1998) book *New Approaches to Chinese Word Formation: Morphology, Phonology and the Lexicon in Modern and Ancient Chinese*.

4.1 Successive verb compounds [v V-V]

In light of this background, we are now in a position to consider the combinatory patterning of verb compounds in Classical Chinese. Based upon the database, at least four variations

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[4] This paper has to admit that the *Man'yoshuu* consists of over 4,400 poems of varying length. For the moment, 82 verb compounds are gathered.

seem available for building a verb compound: (a) successive pattern, (b) predicate-complement pattern, (c) coordinate pattern and (d) modifier-predicate pattern.

Successive type appears to have the largest applicability of all multi-verb constructions in Classical Chinese. An illustration is given in (20):

(20) 聞　　君　　好　　士，　故　　**走　來　見**。

　　　Wen　jun　　hao　shi,　gu　　zou　lao　jian

　　　Hear　you.HON　be fond of　person　therefore　run　come　meet

　　　'I have heard that you are fond of wise person, therefore I run here to meet you'

(Shuoyuan)

In (21), the complex construction 走來見 is conveyed by serial verbs, i.e. *zou* ('run'), *lai* ('come'), and *jian* ('meet'). Crucially, three constituents in this construction appear to be assigned an equal semantic, syntactic and morphological status. This comes to resemble a piece of data from *Man'yōshū*, as in (21).

(21)　安礼 乃 埼　　**榜 多味　行之**　棚　　無　　　小舟.

　　　are　no　saki　**kogi-tamwi- yuki-si**　tana　na-si　　wo-bune

　　　Are　GEN　cape　row-turn around-go.SPST　tana　have-NEG　boat

　　　'That little tana-less boat coasted round the cape of Are.'

(MYS.1.58)

(21) is conveyed by serial verbs, i.e. a transitive verb, *kogu* ('row'), a transitive verb, *tamu* ('turn around'), and an unaccusative verb, *yuku* ('go').

Another example for this patterning would be:

(22) 昔　　　衛獻公　　**出走**，　　反　　　國.

　　　xi　　Weixiangong　chuzou　　fan　　　guo

　　past　Weixiangong　　exit-run　　betray　motherland

　　　'Once upon a time, Weixiangong left and run away, aiming to betray his motherland.'

(Han Shi Wai Zhuan)

In (22), the two constituents are involved in a succession relation, and both of them, i.e. an unaccusative verb, 出 *chu* ('exit') and an unergative verb, 走 *zou* ('run'), are independent motion verbs and equally render the motion information. Furthermore, their location can be reversed[5]. This might suffice to support the conclusion that, in Classical Chinese, the multiple

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[5] The location of 出走(exit-run) can be reversed, thus we have 走出(run-exit). Still, it should be considered as a successive type of V-V. However, it is essential to note that the meaning of 走出 in contemporary Chinese is

verbs are assigned to a relatively loose compounding relation.

4.2 Predicate-Complement Type [v' V [V-C]]

In the following illustration, result is conflated in a predicate-complement V-V. The compound is composed of a cause verb V1, denoting an action and a stative verb V2, expressing the result of an action. This feature mainly occurs at the end of the Late Archaic and the beginning of the early Medieval period.

(23) 齊桓公　　出　獵，　逐　　鹿　而　**走　入**　　山谷　　之　　　中.

　　Qihaungong　chu　lie, zhu　　lu　er　　zou　ru　　shangu　zhi　zhong

　　Qihuangong　exit hunt chases　deer and　run　enter　mountains GEN inside

　　'Qihuangong went hunting. He ran and entered into the mountains for chasing a deer.'

(Shuoyuan)

As confirmed from the database, the predicate-complement V-V appears quite productive. So far, 16 tokens of 走入 have been identified in the document of *Shuoyuan*. Another piece of this option would be in (24):

(24) 田子　　愧慚，　　**走　　出**.

　　Tianzi cankui,　　zou　chu

　　Tianzi (feel)ashamed run　out

　　'Tianzi felt ashamed and ran out.'

(Han shi wai zhuan)

(24) is composed of an unergative verb V1 走 zou 'ran', and an unaccusative verb V2 出 chu 'exit'. It appears that 上, 入，出 most frequently appears as a V2 in tokens.

Furthermore, complement relation type V-V has another variation, i.e. both morphemes are unaccusative, as in (25) and (26).

(25) 百　日　而 **餓 死**。

　 Bai　ri　er　**e　si**

100 day　CONJ starve die

'After one hundred days, (he) starved to death.'

(Shiji 79, Fan Ju)

(26) 如此，則　國　　之　**滅 亡**　　無日　矣。

　　ruci,　ze　guo　　zhi　mie　wang　wuri　yi

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quite different from 出走(exit-run), that is, 走出 in contemporary Chinese falls into the predicate-complement V-V, whereby, 出 is grammaticalsied and became a direct complement. 出走 is a coordinate V-V.

thus,   then country GEN destroy perish soon   INT

'Thus, the country would soon perish.'

(Book of Rites)

In example (26), the two verbs 滅 'destroy' and 亡 'perish' denote an event and its result relatively.

It is also important to notice that it is not usual for the compound verb (of the unaccusative verb + unaccusative verb pattern) to take an object at the stage of Classical Chinese.

Perhaps the complement relation type has the largest applicability of all multi-verb constructions in the database of Classical Chinese. We provisionally identify 107 tokens of the predicate-complement device in documents of Han Dynasty (*Zhanguoce*, *Shij, Hanshu*). (27) is another typical illustration, which is composed of a transitive verb 殺 *sha* 'kill' and an unaccusative verb 死 *si* 'dead'.

(27) 上   少時   依   許氏。及 即位   而   許后   已   **殺死**.

   Shang   shaoshi yi   Xushi, ji jiwei   er   Xuhou   yi   shasi

(Xuan) childhood rely on Queen Xu until take the throne but Queen Xu   already kill-dead

'When the Emperor Xuan was young, he relied on the Queen Xu, when he took the throne, the Queen Xu had been killed. '

(Hanshu)

4.3 Coordinate pattern

There is another option that a good deal of tokens comes thanks to, i.e. the coordinate pattern, as exemplified by (28):

 (28) **殺 戮**   刑罰,   民   之   所   惡   也。

   Sha lu   xinfa,   min zhi suo wu   ye

   kill, massacre punishment   nation GEN things hate   IJP

   'The punishment of massacre is what the nation hates.'

(Han Shi Wai Zhuan)

4.4 Modifier-predicate V-V

Having drawn a picture of the most prototypical patterning, the following data present a further picture: the modifier-predicate option is also an option for building a V-V in Classical Chinese.

(29) **射 殺** 一 魚。

   She sha yi yu

shoot kill   one   fish

'(He) shot and killed a fish.'

<div align="right">(Shiji 6, Qin Shihuang)</div>

(29) is composed of a main verb, denoted by V2 杀 *sha* ('kill'), and an adverbial verb denoted by V1 射 *she* ('shoot'). Bear in mind that 杀 *sha* 'kill' in Modern Chinese merely indicates an action, bearing no result of the action. In Old Chinese and Classical Chinese, it contained both causativity as well as a result. Given this, the sentence should be considered telic. A further example is given in (30).

(30)遂　　率　　天下　　　諸侯，　　　　　　執　豆籩，　　逡　　**奔走**.

　　Sui　shuai　tianxia　zhuhou　　　　　zhi dou bian,　qun　benzou

　　Then　lead　the world　ruler of state　　carry container　retreat run-walk

　　'The led all the rulers of states, carrying containers that are made of bamboo, walk fast.'

<div align="right">(Book of Rites）</div>

It should be noted that the modifier-predicate device in Classical Chinese is less productive than the modifier-predicate device in Old Japanese.

4.5 Verb Weakening in Classical Chinese

The examples in (24)-(27) inspire us to ponder if verb weakening perhaps exists as early as in the 3rd century BC. A closer look at the verb weakening of multi-verb constructions giving a comparison of the two languages is necessary.

Our pilot investigation shows the following words tend to appear in the later position in quite high frequency: 上 *shang* ('ascend'), 入 *ru* ('entre'), 出 chu ('exit'), 下 *xià* ('descend'), 过 *guò* ('cross'). The frequency of these verbs appearing in the preceding position as well as the later position is given in Table 4.

Table 4. Frequency of shang, etc. appearing in the preceding / later position

Lexicon	Preceding position	Later position	Total	Percentage of Later position
入 *ru* 'entre'	11	31	42	89%
出 chu 'exit'	6	41	47	97%
上 *shang* 'ascend'	10	55	65	97%
下 *xià* 'descend'	12	29	41	71%
过 *guò* 'cross'	14	17	31	55%

It is essential to note that the above morphemes are partially grammaticalised in the stage of Classical Chinese and hence are not yet to be considered directional complements. They may still be capable of taking a ground NP (noun phrase) as object, making the whole structure like a verb phrase.

4.6 Summary

This section has highlighted four combinatory options for verb compounds in Classical Chinese. To briefly summarise, unlike Old Japanese, whereby the modifier-predicate V-V is extensively employed among the motion and change-of-state events, Classical Chinese seems to favour successive as well as predicate-complete patterning. It is also necessary to note that, during the Han Dynasty, many action verbs (especially those denoting a spatial meaning) that used to be substantive verbs in Old Chinese have their verbal nature weakened. The relevant grammatical elements and their composition methods, as well as possible argument structures, are summed up in Table 5.

Table 5. Combinatory patterning in line with composition methods, argument structures in Classical Chinese

Combinatory patterning	Composition methods	Argument structure
1. Successive	$V_{main} \ V_{main} V_{main}$	no constraint
2. Predicate-complement	$V_{main}C$	a. unerg.V + unacc.V[6]
		b. tran. V + unacc. V
3. Coordinate	$V_{main}V_{main}$	a. unerg.V + unerg.V
		b. tran. V + tran. V
		c. unacc.V + unacc.V
4. Modifier-predicate	$V_{modifier} V_{main}$	V1 could be any, V2 must be transitive

5. Conclusions

This paper is dedicated to examining the formation of verb compounds in Old Japanese and Classical Chinese. The findings reveal that the syntax-lexical semantics interface mainly facilitates the formation of verb compounds in both languages. Verb compounds in Old Japanese are assigned to a relatively loose relation, giving rise to coordinate and successive patterns being prominent options. Moreover, conveying the result of an action via substantive verbs appears at a high frequency. In Classical Chinese, it is noticed that combinatory patterning seemed to favour successive and predicate-complete patterning. The coordinate device appeared later than the predicate-complement option. Successive patterning occurs far more prominently in Old Japanese than it does in Classical Chinese. Furthermore, verb weakening is observed in both languages. The conclusion emerging from our contrast of verb compounding in the languages is that Old Japanese shares similarities with Classical Chinese in the extensive employment of successive and coordinate compounding devices.

Acknowledgement

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[6] Unerg. V: unergative verb; tran. V: transitive verb; unacc. V: unaccusative verb.

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Old Japanese Data Source

仏足石歌 *Bussokuseki-ka* (after AD. 753)

古事記 *Kojiki* (AD. 712)

万葉集 *Manyoshu* (AD. 759)

日本書紀 *Nihon shoki* (AD.720)

The Oxford Corpus of Old Japanese: http://vsarpj.orinst.ox.ac.uk/corpus/

Old Chinese data source

论语 (*Analects* BC. 700)

孟子 (*Mencius* BC. 475-BC. 221)

荀子 (*Xunzi* BC.313-BC.238)

礼记 (*Book of Rites* BC. 475 – BC. 221)

汉书 (*Hanshu* BC. 206 – AD.23)

韩诗外传 (*Han Shi Wai Zhuan* B.C.206 – AD. 9)

说苑 (*Shuoyuan* BC. 206-AD. 9)

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史记(*Shiji* BC104-BC91)

List of Symbols and Abbreviations   (based on Frellesvig 2010))

ACC   accusative

ACOP   adjectival copula

AND   adnominal

ADV   adverb

ABL   ablative

ALL   allative

BM   boundary marker

COMP   complementiser

CONC   concessive

CONCL   conclusive

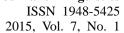COND   conditional

CONJ   conjectural

CONT   continuous

COP   copula

COS   change-of-state

DAT   dative

DEM   demonstrative

EMPH   emphatic

ETOP	emphatic topic
EXCL	exclamatory
FOC	focus
GER	gerund
HON	honorific
IMP	imperative
INF	infinitive
INT	interjection
IJP	interjectional particle
MPST	modal past
NEG	negative
NLZR	nominaliser
NMNL	nominal
OPT	optative
PASS	passive
PART	participle
PCONJ	present conjectural
PLUR	plural
PREF	prefix
PREV	preverb
PROG	progressive
PRON	pronoun
PROV	provisional
Q	interrogative
QUA	quantity
RESP	respect
SPST	simple past
SVC	serial verb construction
TOP	topic