ON THE STRUCTURE OF THE CLAUSE IN PROTO-SINO-TIBETAN AND ITS DEVELOPMENT IN THE DAUGHTER LANGUAGES

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ABSTRACT

In Sino-Tibetan historical linguistics, much has been done in reconstructing the sound system of Proto-Sino-Tibetan and in reconstructing a large number of cognate lexical items assumed to have been part of Proto-Sino-Tibetan, and there has been considerable work in terms of what morphology can or cannot be reconstructed to Proto-Sino-Tibetan, but it is much harder to say that two syntactic patterns are cognate than to say that two morphological paradigms or particular words are cognate. Within the family we find that modern Sinitic varieties vary from most of the Tibeto-Burman languages in terms of basic clause structure. In this paper we look at information structure in Old Chinese to attempt to find a directionality to the changes found in the long period we think of as Old Chinese, and to look back to the starting point of those changes to see what the clause structure of the precursor of Old Chinese might have been. As it turns out to be more similar to the dominant patterns of Tibeto-Burman languages, it allows us to hypothesize what the patterns were in Proto-Sino-Tibetan.

KEYWORDS

Sino-Tibetan languages   Historical linguistics   Information structure
Syntactic reconstruction

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1. INTRODUCTION

In historical linguistics focused on the Sino-Tibetan language family, much has been done in reconstructing the sound system of the supposed ancestor of all of the modern languages, Proto-Sino-Tibetan, and in reconstructing a large number of cognate lexical items assumed to have been part of Proto-Sino-Tibetan (see for example Benedict 1972; Bodman 1980; Matisoff 2003, 2015), and there has been considerable work (and controversy) in terms of what morphology can or cannot be reconstructed to Proto-Sino-Tibetan (e.g., LaPolla 2004, 2005, 2017 and references therein), but not much work has been done on the nature of Sino-Tibetan syntax. This is for a good reason, as it is much harder to say that a syntactic pattern is cognate than to say that a morphological paradigm or members of a particular word family are cognate. But given that we assume the different branches of Sino-Tibetan are related, we must have an explanation for the divergent patterns of word order. Within the family we find that modern Sinitic varieties are generally verb-medial, with adjective-noun, genitive-head, relative clause-head, and number-measure/classifier-noun order; while on the Tibeto-Burman side we find that Karen and Bai are also generally verb medial and have relative clause-head and genitive-noun order, but have noun-adjective and noun-number-measure order, while the rest of the Tibeto-Burman languages are all verb-final, and generally have noun-adjective (and secondarily adjective-noun), genitive-head, relative clause-head, and noun-number-measure order.

In attempting to reconstruct Proto-Indo-European, we have a considerable body of old textual evidence in a large number of languages, and in some cases we even have parallel texts in different languages within the family (see Watkins 1989). While the time depth of Sino-Tibetan is comparable to that of Indo-European, roughly 6,000 years (Nichols 1992; Wang 1998, Zhang et al. 2019), only a few languages within Sino-Tibetan have been written for any length of time, and the development of writing even in those few languages is uneven, so, for example, the earliest texts of any Tibet-Burman language, Tibetan (7th century CE—Jäschke 1954), are much later than the earliest texts of Chinese (13th century BCE—Keightley 1978). It is also not possible to find parallel texts other than much later translations of Buddhist texts, as what was written about in the earliest attestations of Chinese was divinations, while the earliest Tibetan

texts were translations of Sanskrit Buddhist texts. What we need to do then is a sort of internal reconstruction, looking at the direction of attested changes in the languages and then look backwards from them to get an idea of what the language might have looked like before the changes occurred. We will look at the two major branches of the family individually, starting with Sinitic.

2. SINITIC

From Old Chinese up to Modern Mandarin Chinese the structure of the clause has been consistently topic-comment, though the particular constructions used in the different periods have changed considerably. What is important for our purposes is that even within the period that we refer to as Old Chinese (roughly 13th century BCE to 1st century CE) there were significant changes in the constructions used, such that we can determine a trend in the changes, and trace back through them to the earlier patterns. Unfortunately, due to many linguists working on Chinese operating with the mistaken assumption that the grammar of all Sinitic varieties is basically the same, there are few detailed descriptions of the grammars of non-Mandarin varieties. It is only recently that fieldwork on the grammar of non-Mandarin Sinitic varieties has begun to be carried out. In particular there has been little work on how information structure affects clause structure in the varieties other than Mandarin, aside from one study, Lee 2002, that showed that there are some differences between Mandarin and Hong Kong Cantonese in this regard.

In Modern Mandarin, constituent order is governed by information structure, with the basic clause structure being topic-comment, with topical elements appearing before the verb and non-topical and focal elements appearing after the verb, unlike in English, where constituent order is determined by the grammatical mood of the clause and syntactic relations such as subject and object (Chao 1968; Lü 1979; LaPolla 1995, 2009; LaPolla and Poa 2005, 2006). Givón (1979) has argued that languages develop from having more pragmatically based syntactic structures to having more syntactically based structures (as we assume now regularly in discussions of grammaticalization). If this is correct, then we might hypothesize that since syntax in Modern Mandarin is controlled by pragmatic factors, we should find the same or an even stronger tendency toward pragmatic control of

syntax in Old Chinese. And we do find support for this view. Wang Li (1985, 8ff), for example, argued that there were two periods in the history of Chinese, an earlier "not yet fixed grammar" period, when the grammar was loose, as if there was no grammar, and a "fixed grammar" era. W. von Humboldt (1863), Serruys (1981), Wang Li (1985), Wang Kezhong (1986), and Herforth (1987) all argue that Old Chinese is very much a discourse-based language, so much so that individual sentences very often cannot be interpreted properly outside the full context in which they appeared. W. von Humboldt comments that Chinese 'consigns all grammatical form of the language to the work of the mind' (1863[1988], 230). Serruys (1981, 356) states that in the oracle bone inscriptions (the earliest written Chinese), "there are no particles to mark either concessive or conditional subordinate clauses; *everything seems to be implied by context*" (emphasis added; see also Takashima 1973, 288–305). This radical ambiguity even extends to where, in NP$_1$ V NP$_2$ constructions, NP$_1$ and NP$_2$ can both be either actor or undergoer, depending on the context or knowledge about the referents represented by the referential phrase (Wang 1986, Shen 1992).[1] Compare the following two examples (as cited in Wang 1986, 53), where Yao is the ruler served by Shun and Yu in both examples:

(1)   a. 舜臣尧，宾于四门。（左转・文公十八年）
           shùn chén   yáo, bīn   yú sì   mén
           Shun be.official Yao   receive.guest LOC four   gate
           'Shun served (in place of) Yao, (and) received guests at the
           four gates (of the palace).' (*Zuozhuan:* Wen Gong, Year 18)

       b. 尧能则天者，贵其能臣舜禹二圣。（新论・正经）
           yáo néng zé   tiān   zhě,
           Yao can   principle   heaven NNLZ
           guì   qí   néng chén   shùn yǔ   èr   shèng
           valuable 3sg   able   be.official   Shun Yu   two   sage
           '(In terms of) Yao being able to take heaven as the principle (for
           ruling), the important thing is that he was served by the two
           sages Shun and Yu. (*Xin Lun:* Zheng Jing 32)

Gao Ming (1987, 295) gives examples from the oracle bone inscriptions in which the actor and the undergoer, and even the recipient, all appear after the verb (see also Shen 1992 on post-verbal actors). Shen Pei (1992) shows that temporal adverbial expressions in the oracle bone inscriptions could appear in initial, medial, or final position. Paek and Ryu (2017) show that in the oracle bone inscriptions preposition phrases representing an origin point and a terminus point could both appear after the verb, but this is not found in the later Zhou Dynasty texts, and they show that preposition phrases with the preposition *yú* 于 representing the re-ceiver of the action could appear before or after the verb in the earlier in-scriptions, but only occurred after the verb in the later texts. As Zhang (2015, 8) and Paek and Ryu (2017) point out, appearance in preverbal po-sition marked the preposition phrase with *yú* 于 or *yú* 於 as a contrastive focus, the part of the clause selected for emphasis. Paek and Ryu argue that the biggest change in terms of the preposition phrases from the Shang pe-riod (oracle bone inscription) to the Zhou period (texts) is the fixing of the word order of preposition phrases with *zì* 自 and *zhì(yú)* 至（于） in pre-verbal position, and those with *yú* 于 in post-verbal position (*yú* 於 also appeared mostly in postverbal position in the later period, but could still appear in preverbal position for contrastive focus). Jiang (1990) also makes the point about the position of preposition phrases and also shows how even adverbs, such as negators, could appear either before or after the verb in the inscriptions.

Discussions of word order in Old Chinese generally start out with a statement to the effect that the most common word order is verb-medial for transitive clauses, just as in Modern Mandarin, so word order has been ba-sically stable, but that there are a number of other word order patterns, particularly verb-final clauses (e.g., Wang 1980; Dai 1981; Gao 1987). Chou Fa-Kao (1961) and Dai Lianzhang (1981) analyze all clauses in Old Chinese as topic-comment structures. Dai Lianzheng (1981) and Shen Xiaolong (1986) both state that the alternate word order patterns are for setting off a particular element as either a topic or a comment. Although there is a lot of freedom of word order in Modern Mandarin as well, in Old Chinese there were even less restrictions on the word order patterns, for example, on what could appear as topic in the clause.

One word order pattern that has been given a lot of attention is where the undergoer or recipient appears immediately before the verb. In the oracle bone inscriptions, the reference to the relevant referent in this construction could be a full noun phrase or a preposition phrase or a pronoun, which appears in immediate preverbal position to mark it as being in contrastive focus. The oracle bone inscriptions were divinations made as statements, often in sets, each one testing a particular course of action (Keightley 1978; Serruys 1981). We see the contrastive use of word order, with contrastive focus position being immediately preverbal, in sets such as in (2) (Serruys 1981, 334), which is a single series of propositions testing whether it is to *Zǔ Dīng* or to some other ancestor spirit that the exorcism is to be performed, and it is clear that what is in focus is the one to whom the exorcism should be performed (the words in bold are the focal elements; Modern Mandarin forms in pinyin are used instead of reconstructions, as phonology is not at issue here):[2]

(2)　　　侑　　　　　　于　　祖　　　丁,
　　　　yù　　　　　　**yú**　**Zǔ**　　**Dīng**,
　　　　perform.exorcism　LOC　Ancestor　Ding
　　　　勿　　于　　祖　　丁　　侑。
　　　　wù　　**yú**　**Zǔ**　　**Dīng**　yù.
　　　　do.not　LOC　ancestor　Ding　perform.exorcism
　　　　于　　羌　　甲　侑,
　　　　yú　**Qiāng**　**Jiǎ**　yù,
　　　　LOC　Qiang　Jia　perform.exorcism
　　　　勿　　　于　　羌　　甲　侑。
　　　　wù　　**yú**　**Qiāng**　**Jiǎ**　yù
　　　　do.not　LOC　Qiang　Jia　perform.exorcism
　　　　'Perform an exorcism to Ancestor Ding, don't perform an exorcism to Ancestor Ding, perform an exorcism to Qiang Jia, don't perform an exorcism to Qiang Jia.'

In the Shang period this construction was not limited to pronouns, or negation contexts or interrogatives; complex referential phrases and preposition phrases could appear in the preverbal slot (see Jiang 1990, 27

for more examples), but in the Zhou period the use of the construction became more restricted, with the preverbal argument generally appearing only as a pronoun and largely in interrogatives and in negated clauses, as in the following, from the *Zuozhuan* (4th century BCE):

(3)   a. 我无尔诈，尔无我虞。（左传·宣公十五年）
        Wǒ wú **ěr** zhà,   ěr   wú **wǒ** yú.
        1sg NEG 2sg cheat   2sg NEG 1sg deceive
        'I didn't cheat you, you don't deceive me.' (Xuan Gong, Year 15)

       b. 君亡之不恤，而群臣是忧，惠之至也。（左传·禧公十五年）
        [Jūn wáng]$_i$ **zhī**$_i$ bù xū,   ér [qún chén]$_j$ **shì**$_j$ yōu,
        ruler exile   this NEG worry but group vassal this worry
        huì   zhī zhì   yě.
        compassion GEN utmost   ASS
        'The ruler is not concerned with his own banishment, yet is worried about his vassals; this is really the height of compassion.'
        (Xuan Gong, Year 15)

       c. 余虽与晋出入，余唯利是视。（左传·成公十三年）
        Yú sūi   yǔ   Jìn chūrù,
        1sg although COM PN   interact
        yú wéi lì   **shì** shì.
        1sg COP benefit this look.at
        'Although I have dealings with Jin, I only consider benefit (to me).' (Cheng Gong, Year 13)

    In this construction, the immediately preverbal NP is almost always a pronoun in the Zhou period texts and later (11th century BCE on). In (3a) we have the pronoun alone, but in (3b-c) the pronoun is resumptive, coreferential with the preceding referring expression. In both constructions the focus is narrow and contrastive. In the latter the event/thing to be focused on is first introduced and then commented on using the pronoun and predicate, much like in the English construction *What do I want? You coming to work on time, THAT is what I want!* The narrow focus and contrastive nature can be seen clearly in the parallelism of (3a-b) and in the use of the

copula *wéi* 惟 in (3c), which is a narrow focus cleft structure with the sense of 'only' (Takashima 1990; Cf. Herforth 2017, §5ff.). Jiang (1990, 28) argues that in the Shang period *wéi* 惟 was often used with the preverbal referential phrase to highlight its focal nature, and this continued into the Zhou period, but in the Spring and Autumn period (770-476 BCE) the construction with *zhī* 之 or *shì* 是 as a resumptive pronoun representing the focal element appeared, and then a hybrid of the two constructions ([*wéi* referential phrase *zhī/shì*] predicate, as in (3c)) appeared, and these two constructions continued to be used as fixed constructions.

In most academic work on this construction there is only discussion of when the construction is used, not of when the construction is not used (Matsue 2010[3] is a clear exception). The function of the construction becomes much clearer when we contrast this construction with clauses where the relevant referent is not in narrow focus, and here we see that the pronoun does not come before the verb, even in negative clauses:

(4)   有事而不告我，必不捷矣。《左传・襄公二十八年》
        Yǒu   shì   ér   bù   gào   wǒ,
        EXIST matter yet   NEG   tell   1sg
        bì   bù   jié   yǐ
        must NEG   succeed   ASP
        'If something comes up yet you don't tell me, (you) definitely won't succeed.' (*Zuozhuan:* Xiang Gong Year 28)

Yu Min (1980, 1981, 1987) also gives examples like (4) to show that the so-called "inverted"[4] clausal order of undergoer immediately before the verb is not limited to pronouns in negative and question constructions, and he argues that the function of this word order is to "emphasize" the undergoer or recipient. The constructions discussed here are better seen as narrow focus constructions, which of course includes the question-word questions, which by their very nature are narrow focus. Yu Min also argues that two of the deictic pronouns of Old Chinese, *shì* 是 (*djeʔ) and *zhī* 之 (*tjɨ), are cognate with Tibetan *de* 'that' and *ˊdi* 'this'[5] and that the word order exhibited by these pronouns in these sentences is the original Sino-Tibetan order. Wang Li (1980, 356) also suggests that with pronouns the preverbal order may have been the original standard order, "as it is in

French" but does not make the connection between this suggestion and the possibility that the order of pronouns may reflect an older general word order pattern, as it does in French.

What is significant about this pattern is that (a) it is used in most instances for interrogative pronouns and contrastive focus; (b) the pronoun in question appears immediately before the verb, the usual focus position of verb-final languages (cf. Comrie's discussion of focus position in Hungarian [1981, 57]); and (c) it is a pattern that first was relatively free, involving lexical nouns and several different pronouns, then became more and more restricted (what Hopper 1991 refers to as "specialized"), then gradually disappeared over time from Chinese texts (see Yin 1985—in Modern Mandarin there are now only fossilized remnants, such as *hézài* 何在 [interrogative pronoun-locative verb] 'where'). It would seem from the phenomena presented here that immediate preverbal position was the focus position in Old Chinese—at least in contrastive sentences—whereas Modern Mandarin has a very strong postverbal focus position (see LaPolla 1995, 2009; LaPolla and Poa 2005, 2006).

In terms of phrase-internal constituents, the order in Old Chinese is generally modifier-modified (ATTRIBUTE-HEAD, GENITIVE-HEAD, DEMONSTRATIVE-HEAD, RELATIVE CLAUSE-HEAD, NEGATIVE-VERB), and also ADPOSITION-NOUN, NUMERAL-HEAD (or HEAD-NUMERAL-CLASSIFIER/ MEASURE), ADJECTIVE-MARKER-STANDARD, though there are a number of examples of HEAD-ATTRIBUTE order (e.g., *sāng róu* 桑柔 [mulberry-tender] 'tender mulberry'; *dào kě dào* 道可道 [path can speak] 'the Tao that can be spoken of' (cf. the 3rd cen translation of Wang Bi 王弼 using a pre-head modifier: "可道之道"); *yù wèi lǐ zhě* 玉未理者 [jade not.yet polish TOP] 'unpolished jade'; and many names, such as *Zǔ Dīng* 祖丁 'Ancestor Ding' and *Qiāng Jiǎ* 羌甲 in (2) above) and NOUN-ADPOSITION order as well (Wang 1980; Shen 1986; Dai 1981, Sun 1991).[6]

Sun Chaofen (1991) discusses the history and distribution of the adposition phrases with *yǐ* 以. He shows that the adpositional phrase (AP) can occur before or after the verb, and that the adposition itself can be prepositional or postpositional, the only restriction being that the postpositional AP does not appear post-verbally. Sun suggests that based on this pattern, the postpositional, preverbal AP is the archaic order. Based on topic continuity counts of the type used in Givón 1983, he argues that the

position of the prepositional AP before or after the verb is related to dis-course-pragmatic factors—the preverbal type is more likely to be used in contrastive contexts. Interestingly, he found that when it occurred with the deictic pronoun *shì* 是 'that', *yǐ* ONLY appeared postpositionally. Again we see what seems to be a more conservative sentence pattern with pronouns.

As with the NP-NP-V clauses, the frequency of these marked word order patterns decreased over time and finally disappeared completely (though traces of these patterns can be seen in the fixed expressions *suóyǐ* 所以 [pronoun-postposition] 'therefore', *héyǐ* 何以 [interrogative pro-noun-postposition] 'why, how', *shìyǐ* 是以 [pronoun-postposition] 'there-fore').

Yu Min (1980, 1981, 1987) argues that the other examples of marked word order, such as noun-attribute (as in *sāng róu* 桑柔 'tender mulberry', *Qū Xià* 區夏 'Xia District') and noun-adposition order (he gives examples with *yú* 於 *zài* 在, and *yǐ* 以), are also remnants of the original Sino-Tibetan word order. Qin and Zhang (1985) argue that the early Chi-nese expressions of '*yǒu* 有 + country name' (*Yǒu Shāng* 有商 'Shang Country', *Yǒu Xiā* 有夏 'Xia Country', etc.) should be seen as examples of noun-attribute order, with *yǒu* 有 meaning 'country'. They point out that noun-attribute order is not at all uncommon in the earliest Chinese, espe-cially in names of places and people, such as in *Qiū Shāng* 邱商 'Shang Hill', *Dì Yáo* 帝堯 'Emperor Yao', *Zǔ Yǐ* 祖乙 'Ancestor Yi'.

In Old Chinese all adverbial quantifiers generally appeared in pre-verbal position, as in (5a) (*Zuozhuan:* Zhuang Gong, Year 10). In Modern Mandarin some quantifiers still appear in preverbal position, but more of-ten those composed of a numeral and verbal classifier appear in postverbal position, as in (5b):

(5)   a. 齐人三鼓. （左传·庄公十年）
          Qí   rén   sān   gǔ
          PN   person   three   drum
          'The Qi army drummed three times'
      b. 齐国军队敲了三次鼓。
          Qíguó   jūndùi   qiāo-le   sān-cì   gǔ
          PN   army   hit-PFV   three-times   drum
          'The Qi army drummed three times'

As a verbal quantifier is generally used when the assertion is about the number of times one does something, it would follow that a change of focus position from immediate preverbal position to postverbal position would entail a corresponding change in the position of such quantifiers when they are focal.

In Modern Mandarin the order of elements in nominal quantifier phrases is always (except in listings/catalogues) 'number + measure/classifier + noun'. In Old Chinese, the order was [noun + number + measure] (there were few classifiers) or [number + noun]. Takashima (1985, 1987) gives a pragmatic explanation for the variation: the former is used when the number is focal and the latter when it is not. It is significant that the common order with measures (noun + number + measure) is the same as that of most Tibeto-Burman languages (see below and LaPolla 2002, 2017).

Relative clauses (clausal noun modifiers) in the earliest Chinese (which, according to Chen 1956, 133 and Gao 1987, 283, is based on, and close to, the spoken language of the day—13th century BCE) do not have any overt relational marking; they are simply placed before the noun, with no additional marking (Serruys 1981, 356), and this continued for some time after as well:

(6)   a. 敷前人受命《尚书・周书・大诰》
           fū   [[qiánrén   shòu]$_{MOD}$ mìng]$_{NP}$
           transmit   forbearer   receive   order
           'Transmit the order received by Zhou Gong' (*Shangshu:* Zhou Shu, Dagao)

       b. 夏（...）南越献驯象、能言鸟。《汉书・纪・武帝纪》
           Xià (...) Nányuè xiàn   xùn-xiàng,
           summer Nanyue presented tamed-elephant
           [[néng   yán]$_{MOD}$ niǎo]$_{NP}$
             able   speak   bird
           'Summer [194 A.D.] (...) the Southern Yue presented a tamed elephant and a bird capable of speaking.' (*Han Shu:* Ji, Wu Di Ji)

This is a common pattern found in verb-final languages (cf. Greenberg 1966) and the only pattern reconstructable to Proto-Tibeto-Burman (see LaPolla 2002, 2008, 2017).

Aside from this, the position of certain clause particles at the end of the clause and the position of adverbs within the clause in Old Chinese is generally more similar to what we would expect from a verb-final language.

These are just a few of the facts that suggest that Old Chinese was very likely even more pragmatically based than Modern Mandarin, and that there was a change in word order, from verb-final to verb-medial, at least partially related to a change in focus position, but possibly also related to language contact, as in the case of Bai and Karen (see below, and LaPolla 2001).

3. TIBETO-BURMAN

Karen and Bai manifest the same pattern as in Old Chinese in terms of the major constituents: unmarked verb-medial order but NP-NP-V as a marked word order possibility. What is significant is that the conditions on the use of the marked word order pattern in Bai are very similar to those of Old Chinese: it is used when the second NP is a contrastive pronoun or when the sentence is negative or a question (Xu and Zhao 1984). Also interesting about the use of the different word order patterns in Bai is the fact that the older people prefer the verb-final order, whereas the younger and more Sinicized people prefer the verb-medial order (Xu and Zhao 1984). This would seem to point to the change in word order as being relatively recent.[7]

Karen (e.g., Solnit 1997) has similar word order patterns, with genitives and nominal modifiers coming before the noun, and number and classifier following the noun, while adjectival and verbal modifiers follow the noun. Karen does not appear to have a preverbal focus position; from the data in Solnit (1997), it seems that focus position is sentence-final, as in Modern Mandarin. Karen possibly changed to verb-medial order because of the influence of the surrounding Tai and Mon-Khmer languages.[8] In terms of phrase-internal order, Karen is very similar to Old Chinese, dif-fering mainly in terms of having HEAD-ATTRIBUTE order as the unmarked word order, as opposed to Old Chinese, which has it only as a marked or-der.

Karen and Bai differ from most of the rest of the Tibeto-Burman languages mainly in terms of the position of unmarked focus and in terms of having prepositions. At the phrasal level there is variety among the Tibeto-Burman languages, but there are clear dominant patterns. Table 1 lists the number of languages with the dominant (most frequent) pattern in the leftmost column, followed by that of the minority pattern and then the number of languages with two or more patterns. The last column is the total number of languages for which data was available on that particular category.

Table 1 Phrase patterns in Tibeto-Burman languages

Most frequent order	Less frequent orders	Mixed orders	Total languages
dem-h (60)	h-dem (29)/dem-h-dem (7)	17	113
h-att (66)	att-h (25)	31	122
rel-h (65)	h-rel (7)	10	82
h-num (97)	num-h (14)	14	125
neg-v (69)	v-neg (39)	12	120
gen-h (121)	h-gen (Ø)	Ø	121
st-(m)-att (74)	att-(m)-st (Ø)	Ø	74

Note: att = attribute, dem = demonstrative, gen =genitive, h = head, m = marker (in comparative), neg = negation, num = numeral, rel = relative clause, st = standard (in comparative), v = verb.

Among the languages with mixed patterns, from the use of the different patterns it was sometimes possible to determine which of the two possible orders was dominant or older within that language, and in most cases (all categories except for demonstrative and head order) the dominant order was the same as that in the leftmost column in Table 1.

Based on these numbers, plus the distribution and conditions on occurrence of the different phrase internal word order pat terns, I believe the original order of these elements in Proto-Tibeto-Burman was DEMONSTRATIVE-HEAD, HEAD-ATTRIBUTE, RELATIVE-HEAD, HEAD-NUMBER, NEGATIVE-VERB, NOUN-ADPOSITION, GENITIVE-HEAD, STANDARD-(MARKER)-ADJECTIVE.

These may also have been the dominant orders in Proto-Sino-Tibetan as well. The most controversial of these orders is DEMONSTRATIVE-HEAD, as it would seem from some factors that the opposite order is more

archaic (e.g., the oldest written language, Tibetan, has HEAD-DEMONSTRATIVE order), yet given the numbers presented in Table 1, and the fact that the other old written languages (Burmese, Newari, Tangut) in Tibeto-Burman, and also Old Chinese, all have DEMONSTRATIVE-HEAD order, I am forced to conclude that the latter is probably the older order.

In terms of position of auxiliaries, the dominant pattern in Tibeto-Burman is for the auxiliary verbs to follow the main verb, though there are a number of languages that have the opposite order, as in Sinitic and Karen. Change of auxiliary position from postverbal to preverbal can come about from serial, clause chaining constructions (see Young and Givón 1990 for an example of this in Chibchan [Panama/Costa Rica]), such as are common in Sino-Tibetan languages.

4. CONCLUSIONS

It has been shown in languages outside Tibeto-Burman that even in otherwise verb-final languages there is a tendency for at least some types of focus to appear postverbally (see for example Herring and Paolillo 1993). This has been used as an argument for a universal sentence final focus position (e.g., Hetzron 1975). Whether or not sentence final focus is universal, there is evidence from Tamang, an otherwise verb-final Tibeto-Burman language, of a postverbal contrastive focus position (Taylor 1973, 100–101), and it may exist in other languages within Tibeto-Burman as well. If in Proto-Sinitic postverbal focus was one possibility, and this originally marked pattern came to be so frequent that it became the unmarked pattern, then it would cause a change in the unmarked position of the undergoer, as the NP representing the undergoer is most often in focus position cross-linguistically (see Sun and Givón 1985 for data on Mandarin Chinese).

As postverbal focus in verb-final languages is generally a discourse phenomenon (i.e., does not show up in canonical sentences), the rareness of this construction in the literature may simply be because it does not turn up in the usual elicited sentences on which most of the sources on Tibeto-Burman languages are based, or is only used for particular rare types of marked focus, as in Tamang. This is again one reason when doing fieldwork we should always record a large amount of naturally occurring text, rather than simply record sentences out of context.

Given all the facts discussed here, there is a strong case for the view, originally proposed by Terrien de Lacouperie (1887, Chapter 1) and Wolfenden (1929, 6–9), that Proto-Sino-Tibetan word order was verb-final, and that it was Sinitic, and not Tibeto-Burman, that was the innovator in terms of word order, and it is very likely this change came about at least partially because of a change in the unmarked focus position.

NOTES

1. Y. R. Chao (1968, 69–70) has also argued that this is the case in Modern Mandarin. See also Lü (1979, 72–73).

2. Abbreviations used in the examples: 1 first person, 2 second person, 3 third person, ASS assertive, COM comitative, COP copula, GEN genitive, LOC locative, NEG negative, NMLZ nominalizer, PN proper name, PFV perfective, sg singular.

3. Matsue's study of this phenomenon is very detailed and tries to cover all angles. He tries to correlate the postverbal position of the representation of the relevant referent with the Aktionsart of the clause as eventive or stative, and while there does seem to be such a correlation, and a correlation with the use of the final particles *yǐ* 矣 vs. *yě* 也, the correlation is not as strong as one might like and is not explanatory. That is, why would the difference in Aktionsart cause a difference in word order? His dismissal of an information packaging approach is based on the problematic analysis of Fu and Xu 2009, in which the information categories of (non)-identifiability and focus are conflated. The two categories are different and should be kept distinct, as one is about the status of the referent in the mind of the addressee, and one is about the role of the information in a pragmatic assertion (see Van Valin and LaPolla 1997, Ch. 5 for discussion). There is in fact no constraint on the representation of identifiable referents appearing in focus, and in fact in contrastive focus the referents involved are often identifiable.

4. As Wang Li argues (1980, 366), this name implies it is a marked order. It is in fact the unmarked order for pronouns.

5. Coblin (1986, 149) lists Chinese *shí* 时 (*djɨ(ʔ)) 'this' and *shì* 是 'this, that' with Tibetan *ʼdi* and *de* but does not include *zhī* 之, while Yu Min

(1981, 83) equates *shí* 时 with *zhī* 之. (The reconstructed forms are from Baxter 1992.) The pronoun *shì* 是 does not appear in the oracle bone inscriptions, and so may not be the best cognate for the Tibetan form. Yu Min (1987, 39) also equates the Old Chinese copula *wéi* 惟/唯 (*wjij) with the Modern Tibetan copula *red*, but in this I think he is mistaken, as *red* does not appear in Old Tibetan texts, so is probably a late development.

6. All of the Old Chinese adpositions are in some contexts predicative, and so this order is really just a subtype of verb-final word order.

7. If, as brought up by Feng Wang (汪锋) at the conference, Bai is actually a Sinitic variety or at least closer to Sinitic genetically than the Tibeto-Burman languages (Wang 2013), then the pattern should be an older one, and then it also isn't a case of coincidence but shared history.

8. Tai and Mon-Khmer languages have also been discussed as influences on southern Sinitic varieties as opposed to Altaic influence in the north (e.g. Hashimoto 1976, 1984, both reprinted in LaPolla, ed. 2018). See LaPolla 2001, 2018 for discussion.

REFERENCES

BAXTER, William H. 1992. *A Handbook of Old Chinese Phonology.* (Trends in Linguistics, Studies and Monographs 64.) Berlin: Mouton de Gruyter.

BENEDICT, Paul K. 1972. *Sino-Tibetan: A Conspectus,* James A. Matisoff, Contributing Editor. Cambridge: Cambridge University Press.

BODMAN, Nicholas C. 1980. Proto-Chinese and Sino-Tibetan: Data towards establishing the nature of the relationship. In *Contributions to Historical Linguistics,* ed. by F. Van Coetsem and L. R. Waugh, 34–199. Leiden: E. J. Brill.

CHAO, Yuen Ren. (1959)1976. How Chinese logic operates. In *Aspects of Chinese Sociolinguistics: Essays by Yuen Ren Chao,* ed. by Anwar S. Dil, 250–259. Stanford: Stanford University Press.

———. 1968. *A Grammar of Spoken Chinese.* Berkeley: University of California Press.

CHEN, Mengjia 陈梦家. 1956. *Yinxu Buci Zongshu* 殷墟卜辞综述 (A Survey of Yin Oracle Bone Inscriptions). Beijing: Kexue chubanshe.

CHOU, Fa-Kao 周法高. 1961. *Zhongguo Gudai Yufa, Zaoju Bian* 中国古代语法：造句篇 (A Historical Grammar of Archaic Chinese, Part I: Syntax). Taipei: Academia Sinica.

COBLIN, Weldon South. 1986. *A Sinologist's Handlist of Sino-Tibetan Lexical Comparisons (Monumenta Serica Monograph Series XVIII).* Nettetal: Steyler Verlag.

COMRIE, Bernard. 1981. *Language Universals and Linguistic Typology.* Oxford: Blackwell.

DAI, Lianzhang 戴琏璋. 1981. Gudai Hanyu de yuxu bianhuan 古代汉语的语序变换 (Word order permutations in Old Chinese). *Proceedings of the International Conference on Chinese Studies, August 15–17, 1980.* Taipei: Academia Sinica.

FU, Jingqi 傅京起, and Dan Xu 徐丹. 2009. SVO yuyan li de binyu qianzhi SVO 语言里的宾语前置 (The placing of the object in initial position in SVO languages). *Minzu Yuwen* 民族语文 no.3: 3–15.

GAO, Ming 高明. 1987. *Zhongguo Guwenzixue Tonglun* 中国古文字学通论 (A Conspectus of Chinese Graphology). Beijing: Wenwu chubanshe.

GIVÓN, Talmy. 1979. From discourse to syntax: Grammar as a processing strategy. In *Discourse and Syntax. Syntax and Semantics,* Vol. 12, ed. by T. Givón, 81–112. New York: Academic Press.

GREENBERG, Joseph H. 1966. Some universals of grammar with particular reference to the order of meaningful elements. In *Universals of Language,* ed. by J. H. Greenberg, 73–113. Cambridge: MIT Press.

HASHIMOTO, Mantaro J. 1976a. Language diffusion on the Asian continent: Problems of typological diversity in Sino-Tibetan. *Computational Analyses of Asian and African Languages* 3: 49-66.

HASHIMOTO, Mantaro J. 1984. Origin of the East Asian linguistic structure - latitudinal transitions and longitudinal developments of East and Southeast Asian languages. *Computational Analyses of Asian and African Languages* (National Inter-University Research Institute of Asian and African languages and cultures, Tokyo) 22: 35-42.

HERFORTH, Derek D. 1987. A case of radical ambiguity in Old Chinese: Some notes toward a discourse-based grammar. *Suzugamine Joshi Tanki Daigaku Bulletin of Humanities and Social Science Research* 34: 31–40.

———. 2017. Old Chinese syntax: The left periphery. In *Encyclopedia of Chinese Language and Linguistics,* General Editor Rint Sybesma. Leiden: Brill. http://dx.doi.org/10.1163/2210-7363_ecll_COM_000248

HERRING, Susan C., and John C. Paolillo. 1995. Focus position in SOV languages. In *Word Order in Discourse,* ed. by P. Downing and M. Noonan, 163–198. Philadelphia: John Benjamins.

HETZRON, Robert. 1975. The presentative movement, or why the ideal word order is VSOP. In *Word Order and Word Order Change*, ed. by C. N. Li, 347–388. Austin: University of Texas Press.

HOPPER, Paul J. 1991. On some principles of grammaticization. In *Approaches to Grammaticalization*, Vol. 1, ed. by E. Traugott and B. Heine, 17–35. Philadelphia: John Benjamins.

HUMBOLDT, Wilhelm von. 1988. *On Language: The Diversity of Human Language-Structure and Its Influence on the Mental Development of Mankind.* Translated by Peter Heath. Cambridge: Cambridge University Press. Originally published as *Über die Verschiedenheit des menschlichen Sprachbaues und ihren Einfluss auf die geistige Entwickelung des Menschengeschlechts*, 1836. Berlin: Gedruckt in der Druckerei der Königlichen Akademie der Wissenschaften.

JÄSCHKE, H. A. 1954. *Tibetan Grammar*. New York: Fredrick Ungar. (Reprint of 3rd ed., Berlin 1929)

JIANG, Baochang 姜宝昌. 1990. Yinxu jiagu keci jufa yanjiu 殷墟甲骨刻辞句法研究 (Study on the syntax of the oracle bone inscriptions of the Yin ruins). *Yindu Xuekan* 殷都学刊 no.3: 21–29.

KEIGHTLEY, David N. 1978. *Sources of Shang History: The Oracle-Bone Inscriptions of Bronze Age China.* Berkeley: University of California Press.

LAPOLLA, Randy J. 1995. Pragmatic relations and word order in Chinese. In *Word Order in Discourse*, ed. by P. Downing and M. Noonan, 297–329. Philadelphia: John Benjamins.

———. 2001. The role of migration and language contact in the development of the Sino-Tibetan language family. In *Areal Diffusion and Genetic Inheritance: Case Studies in Language Change*, ed. by R. M. W. Dixon and A. Y. Aikhenvald, 225–254. Oxford: Oxford University Press.

———. 2002. Problems of methodology and explanation in word order

universals research. In *Dongfang Yuyan yu Wenhua* 东方语言与文化 (Languages and Cultures of the East)*,* ed. by Pan Wuyun 潘悟云, 204–237. Shanghai: Dongfang chuban zhongxin.

———. 2004. On nominal relational morphology in Tibeto-Burman. In *Studies on Sino-Tibetan Languages: Papers in Honor of Professor Hwang-cherng Gong on his Seventieth Birthday,* ed. by Ying-jin Lin, Fang-min Hsu, Chun-chih Lee, Jackson T.-S. Sun, Hsiu-fang Yang, and Dah-an Ho, 43–74. Taipei: Institute of Linguistics, Academia Sinica.

———. 2005. The inclusive–exclusive distinction in Tibeto-Burman languages. In *Clusivity: Typology and Case Studies on Inclusive/Exclusive Oppositions,* ed. by Elena Filimonova, 289–310. Philadelphia: John Benjamins.

———. 2008. Relative clause structures in the Rawang language. *Language and Linguistics* 9(4): 797–812.

———. 2009. Chinese as a topic-comment (not topic-prominent and not SVO) language. In *Studies of Chinese Linguistics: Functional Approaches,* ed. by Janet Xing, 9–22. Hong Kong: Hong Kong University Press.

———. 2017. Overview of Sino-Tibetan morphosyntax. In *The Sino-Tibetan Languages,* Second edition, ed. by Graham Thurgood and Randy J. LaPolla, 40–69. London and New York: Routledge.

———. 2018. Introduction to volume II: Language contact and area features. In LaPolla, ed. 2018, 1–17.

———, ed. 2018. *Sino-Tibetan Linguistics: Critical Concepts in Linguistics, Volume II: Language Contact and Areal Features.* London and New York: Routledge.

LAPOLLA, Randy J., and Dory Poa. 2005. Jiaodian jiegou de leixing ji qi dui Hanyu cixu de yingxiang 焦点结构的类型及其对汉语词序的影响 (The typology of focus structures and their effect on word order in Chinese). In *Jiaodian Jiegou he Yiyi de Yanjiu* 焦点结构和意义的研究 (Studies on the Structure and Semantics of Focus), ed. by Liejiong Xu 徐烈炯 and Haihua Pan 潘海华, 57–78. Beijing: Beijing waiyu jiaoxue yu yanjiu chubanshe.

———. 2006. On describing word order. In *Catching Language: The Standing Challenge of Grammar Writing,* ed. by Felix Ameka, Alan

Dench, and Nicholas Evans, 269–295. Berlin: Mouton de Gruyter.

LEE, Edith Yuet Ying. 2002. *The Influence of Information Structure on Word Order in Cantonese*. Master's thesis, City University of Hong Kong.

LÜ, Shuxiang 吕叔湘. 1979. *Hanyu Yufa Fenxi Wenti* 汉语语法分析问题 (Questions in the Analysis of Chinese Grammar). Beijing: Shangwu yinshuguan.

MATISOFF, James A. 2003. *Handbook of Proto-Tibeto-Burman: System and Philosophy of Sino-Tibetan Reconstruction*. (University of California Publications in Linguistics 135.) Berkeley: University of California Press.

———. 2015. *Sino-Tibetan Etymological Dictionary and Thesaurus*. Berkeley: Sino-Tibetan Etymological Dictionary and Thesaurus Project. http://stedt.berkeley.edu/dissemination/STEDT.pdf

MATSUE, Takashi 松江崇. 2010. Gu Hanyu Yiwen Binyu Cixu Bianhua Jizhi Yanjiu 古汉语疑问宾语词序变化机制研究 (Study of the Mechanism of the Change in the Word Order of Interrogative Objects in Old Chinese). Tokyo: Kohbun Publishing.

NICHOLS, Johanna. 1992. *Language Diversity in Space and Time.* Chicago: University of Chicago Press.

PAEK, Eun-Hee 白恩姬, and Dong Chun Ryu 柳东春. 2017. Cong jieci yongfa kan Shang dai yuyan he Zhou dai yuyan de butong leixing tezheng 从介词用法看商代语言和周代语言的不同类型特征 (An analysis of the differences in the typological characteristics of the Shang and Zhou dynasty languages from the perspective of the preposition phrases). Paper presented at the 3rd Biannual Conference on Linguistic Typology, Shanghai University of International Studies, 14-17 July, 2017.

QIN, Jianming 秦建明, and Maorong Zhang 张懋镕. 1985. Ye tan gu guoming qian de 'you' zi 也谈古国明前的"有"字 (Another discussion of the character 'you' before ancient country names). *Zhongguo Yuwen* 中国语文 no.4: 286–287.

SERRUYS, Paul L-M. 1981. Towards a grammar of the Shang bone inscriptions. *Proceedings of the International Conference on Chinese Studies, August 15-17, 1980*, 313–364. Taipei: Academia Sinica.

SHEN Pei 沈培. 1992. Yinxu jiagu buci zhong zhuyu de weizhi ji

xiangguan wenti 殷墟甲骨卜辞中主语的位置及相关间题 (The position of subject in the oracle bone divinatory texts from the Yin ruins and related questions). *Gu Hanyu Yanjiu* 古汉语研究 no.4: 40–51.

SHEN, Xiaolong 申小龙. 1986. *Zuozhuan* zhuti ju yanjiu 《左转》主题句研究 (A study of topic sentences in the *Zuozhuan*). *Zhongguo Yuwen* 中国语文 no.2: 130–142.

SOLNIT, David B. 1997. *Eastern Kayah Li: Grammar, Texts, Glossary.* Honolulu: University of Hawaii Press.

SUN, Chao-Fen. 1991. The adposition YI and word order in Classical Chinese. *Journal of Chinese Linguistics* 19, no. 2: 203–228.

SUN, Chao-Fen and Talmy Givón. 1985. On the so-called SOV word order in Mandarin Chinese: A quantified text study and its implications. *Language* 61, no. 2: 329–351.

TAKASHIMA, Ken-ichi. 1973. *Negatives in the King Wu-Ting Bone Inscriptions*. Ph.D. dissertation, University of Washington, Seattle.

———. 1985. On the quantitative complement in oracle-bone inscriptions. *Journal of Chinese Linguistics* 13, no.1: 44–68.

———. 1987. Noun phrases in the oracle-bone inscriptions. *Monumenta Serica* 36: 229–302.

———. 1990. A study of the copulas in Shang Chinese. *The Memoirs of the Institute of Oriental Culture* 112: 1–92.

TAYLOR, Doreen. 1973. Clause patterns in Tamang. In *Clause, Sentence, and Discourse Patterns in Selected Languages of Nepal II,* ed. by Austin Hale, 81–174. Kathmandu, Nepal: Tribhuvan University Press.

TERRIEN De Lacouperie, Albert Etienne Jean Baptiste. 1887. *The Languages of China before the Chinese.* London.

VAN VALIN, Jr, Robert D., and Randy J. LaPolla. 1997. *Syntax: Structure, Meaning, and Function*. Cambridge: Cambridge University Press.

WANG, Feng 汪锋. 2013. *Han-Zang yuyan bijiao de fangfa yu shijian—Han, Bai, Yi bijiao yanjiu* 汉藏语言比较的方法与实践—汉、白、彝比较研究 (The Method and Practice of Sino-Tibetan Linguistic Comparison—A Comparative Study of Chinese, Bai, and Yi). Beijing: Beijing daxue chubanshe.

WANG, Kezhong 王克仲. 1986. Gu Hanyu dong bing yuyi guanxi de zhiyue yinsu 古汉语动宾语义关系的制约因素 (Factors conditioning the relationship between subjects and objects in Old Chinese).

Zhongguo Yuwen 中国语文 no.1: 51–57.

WANG, Li 王力. 1980. *Hanyu Shigao* 汉语史稿 (Outline History of the Chinese Language). Beijing: Zhonghua shuju. (Reprint of 1958 version)

———. 1985. *Zhongguo Gu Wenfa* 中国古文法 (Ancient Grammar in China). In *Wang Li Wen Ji* 王力文集 (Collection of Wang Li's Works), Vol. 3, 1–85. Jinan: Shandong jiaoyu chubanshe.

WANG, William S-Y. 1998. Three windows on the past. In *The Bronze Age and Early Iron Age Peoples of Eastern Central Asia*, ed. by Victor H. Mair, 508–534. Washington, DC: Institute for the Study of Man Inc.

WATKINS, Calvert. 1989. New parameters in historical linguistics, philology, and culture history. *Language* 65(4): 783–799.

WOLFENDEN, Stuart N. 1929. *Outlines of Tibeto-Burman Linguistic Morphology.* London: Royal Asiatic Society.

XU, Lin 徐琳, and Yansun Zhao 赵衍荪. 1984. *Baiyu Jianzhi* 白语简志 (Brief Description of the Bai Language). Beijing: Minzu chubanshe.

YIN, Guoguang 殷国光. 1985. Xianqin Hanyu dai yufa biaozhi de binyu qianzhi jushi chutan 先秦汉语带语法标志的宾语前置句式初探 (An initial discussion of Pre-Qin Chinese clause patterns with preposed objects with grammatical marking). *Yuyan Yanjiu* 语言研究 no.2: 162–171.

YOUNG, Philip D., and Talmy Givón. 1990. The puzzle of Ngäbére auxiliaries. In *Studies in Typology and Diachrony,* ed. by W. Croft, K. Denning, and S. Kemmer, 209–243. Philadelphia: John Benjamins.

YU, Min 俞敏. 1980. Han-Zang liang zu ren he hua tongyuan tansuo 汉藏两族人和话同源探索 (Research into the common origin of the people and languages of the Chinese and Tibetans). *Beijing Shifan Daxue Xuebao* 北京师范大学学报 no.1: 45–53.

———. 1981. Daoju tanyuan 倒句探源 (Investigating the source of inverted sentences). *Yuyan Yanjiu* 语言研究 no.1: 78–82.

———. 1987. *Jing Zhuan Shi Ci Zhaji* 经传释词札记 *(Notes on the Lexical Explanations of the Classics).* Changsha: Hunan jiaoyu chubanshe.

ZHANG, Yujin 张玉金. 2015. Jiaguwen zhong weishi jieci "yú" yanjiu 甲骨文中位事介词"于"研究 (A study on the locative proposition *yú* in the oracle bone inscriptions). *Gu Hanyu Yanjiu* 古汉语研究 no.1:

2–11.

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试探原始汉藏语的子句结构及其演变

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摘要

众所周知，汉语族语言与藏缅语族语言有亲属关系，即都来自原始汉藏语。已有不少研究试探构拟原始汉藏语的语音系统、形态和词汇，但句法的性质与词汇、形态的性质不一样，难以构拟，尤其是因为汉语族的语言和大部分的藏缅语族的语言的句子结构不一样。本文试探用信息结构来了解古汉语词序变化的方向，追溯变化的起点，认为在史前时代后来演变为古汉语的语言的词序比较接近大部分藏缅语族语言的词序，因此我们可以推测原始汉藏语的句子结构。

关键词

汉藏语　历史语言学　信息结构　句法构拟