On the Structure of the Clause in Proto-Sino-Tibetan and Its Development in the Daughter Languages

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Introduction

• Reconstruction of the sound system and lexicon of Proto-Sino-Tibetan: e.g. Benedict 1972; Bodman 1980; Matisoff 2003;

• Reconstruction of the morphology: e.g. LaPolla 2003, 2004, 2005, 2017, and references therein, Mei 2015, Schuessler 2017);

• But little on the nature of Sino-Tibetan syntax.
The Problem:

• Modern Sinitic: generally verb-medial, with adjective-noun, genitive-head, relative clause-head, and number-measure/classifier-noun order;

• Within Tibeto-Burman, 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;

• Other Tibeto-Burman: verb-final, and generally have noun-adjective (and secondarily adjective-noun), genitive-head, relative clause-head, and noun-number-measure order.

• How can we explain these differences and reconstruct the constituent structure of the proto-language?
• Sino-Tibetan diverged about 6,000 years ago (Wang 1998), roughly the same as Indo-European (Nichols 1992).

• Indo-European: abundant ancient textual evidence, sometimes possible to have an exact match between text fragments in two different languages within the family (see Watkins 1989);

• Sino-Tibetan: uneven development of writing, and what was written about in the earliest Chinese (divinations) and Tibetan (translations of Sanskrit Buddhist texts) are unrelated.
The Solution:

What we need to do then is analyze the attested languages and then work backward from them, “undoing” the changes that have occurred and project back along that trajectory to the parent language.
Sinitic

- Old Chinese and Modern Mandarin are consistently topic-comment, though the particular constructions used in the different periods have changed considerably.

- In Modern Mandarin constituent order is not governed by syntactic relations such as subject and object but by information structure, with the basic clause structure being topic-comment (Chao 1968; Lü 1979; LaPolla 1995, 2009; LaPolla and Poa 2005, 2006).

- Within Old Chinese the language shows significant changes over time that we might trace back to a change in information structure.
• Chou Fa-kao (1961) and Dai Lianzhang (1981) analyze all sentences in Old Chinese as topic-comment structures.

• Dai (1981) and Shen Xiaolong (1986) state that alternate word order patterns in Old Chinese exist for pragmatic reasons: to set off a particular element as either a topic or a comment.

• Just as in Modern Mandarin, in Old Chinese there are also “topic-comment within a topic-comment” structures (see LaPolla and Poa 2006 on this structure).
Radical Ambiguity in Old Chinese

• Talmy Givón (1979): languages develop from having more pragmatically based structures to having more syntactically based structures.

• If so, then the hypothesis should be that since syntax in Modern Mandarin is heavily weighted in favor of pragmatic factors, we should find the same or an even stronger tendency toward pragmatic control of syntax in Old Chinese.

• Wang Li (1985:8ff): 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 (Wang Li 1985:9), and a later “fixed grammar” era.
• W. von Humboldt (1863), Serruys (1981), Wang Li (1985), Wang Kezhong (1986), and Herforth (1987): interpreting Old Chinese depends on inference, so much so that individual sentences very often cannot be interpreted properly outside the full context in which they appeared.

• Radically ambiguous to the extent that in NP₁ V NP₂ constructions, NP₁ and NP₂ can both be either actor or undergoer (e.g.舜臣尧～尧臣舜禹), depending on the context or knowledge about the event and the referents represented by the referring expressions (Wang Kezhong 1986).

• W. von Humboldt: Chinese ‘consigns all grammatical form of the language to the work of the mind’ (1863[1988]:230).
• Serruys (1981:356): in the oracle bone inscriptions “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).

• Gao Ming (1987:295) gives examples from the oracle bone inscriptions in which the actor and the undergoer, and even the goal, all appear after the verb.
• Old Chinese constituent order: generally verb-medial for transitive sentences, but there are a number of other word order patterns, particularly verb-final clauses (e.g. Wang Li 1980; Dai 1981; Gao 1987).

• Undergoer (or goal) in some contexts appears immediately before the verb, as in (1a-c), from the Zuozhuan:

Abbreviations used in the examples: 1 first person, 2 second person, 3 third person, ASS assertive, COM comitive, COP copula, GEN genitive, LOC locative, NEG negative, PN proper name, PFV perfective, sg singular.
(1) a. 我无尔诈，尔无我虞。《左传•宣公十五年》

Wǒ wú ěr zhà ěr wú wǒ yú.

1 NEG 2 cheat 2 NEG 1 deceive

‘We won’t cheat you, you won’t deceive us.’

• In (1a) we have the pronoun alone, but in the following two examples the pronoun is resumptive, coreferential with the preceding referring expression.
b. 君亡之不恤，而群臣是忧，惠之至也。

[Jun wang] i zhī bù xù, ér [qún chén] j shì yōu, 
ruler exile this NEG worry but group vassal this worry
hùi zhī zhì yě. (Xī Gōng, Year 15)
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.’

c. 余虽与晋出入，余唯利是视。《左传•成公十三年》
Yú sūi yǔ Jìn chūrù, yú wéi [lì] i [shì] i shì.
1sg although COM PN interact 1sg COP benefit this look.at
‘Although I have dealings with Jin, I only consider benefit (to
me).’ (Chéng Gōng, Year 13)
• In this construction, the immediately preverbal referential phrase is almost always a pronoun in the post-oracle bone texts.

• In both constructions the focus is narrow and contrastive. The narrow focus and contrastive nature can be seen clearly in the parallelism within each of (1a–b) and in the use of the copula wéi in (1c), which is a narrow focus cleft structure with the sense of ‘only’ (Takashima 1990). (Cf. Herforth 2017, §5ff.)
• In clauses where the relevant referent is not in narrow focus, the pronoun does not come before the verb, even in negative clauses:

c. 有事而不告我，必不捷矣。《左传·襄公二十八年》

Yǒu shì ér bù gào wǒ, bì bù jié yǐ
EXIST matter yet NEG tell 1sg must NEG succeed ASP
‘If something comes up yet you don’t tell me, you won’t succeed’
• In the oracle bone inscriptions the construction is less restricted, allowing complex referential phrases and preposition phrases to appear in immediate preverbal position when contrasted.

• 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 (but with 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 Zu Ding or to some other spirit that the exorcism is to be performed, and it is clear that what is in focus is the one to perform the exorcism to:
(2) 于祖丁，
勿于祖丁午卝，
于羌甲 午卝，
勿于羌甲午卝。
‘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.’
• Yu Min (1980, 1981, 1987) gives examples to show that the construction with the undergoer immediately before the verb is not limited to pronouns in negative and question constructions.

• He gives the function of this word order as “emphasizing” the undergoer, but as the constructions discussed here are narrow focus constructions (including question-word questions), this word order should be seen as putting it in the focus.

• He also argues that the deictic pronouns of Old Chinese, shì 是 (*djeʔ) and zhī 之 (*tjì), are cognate with Tibetan de ‘that’ and ´di ‘this’ and that the word order exhibited by these pronouns in these sentences is the original Sino-Tibetan order.
• Coblin (1986:149) lists Chinese *shî 时 (*dji(?)) ‘this’ and *shì 是 (*dje?) ‘this, that’ with Tibetan ‘di and de but does not include zhī 之, while Yu (1981:83) equates shî 时 with zhī 之.

• 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
  o it is used in most instances for interrogative pronouns and contrastive focus;
  o the pronoun in question appears immediately before the verb, the usual focus position of verb-final languages (cf. Comrie’s discussion [1981:57, 1988] of focus position in Hungarian); and
  o it is a pattern that first was relatively free, involving lexical nouns and several different pronominal 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 hezai 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).
Phrase-internal constituents

• Old Chinese is generally modifier-modified:
  ATTRIBUTE-HEAD
  GENITIVE-HEAD
  DEMONSTRATIVE-HEAD
  RELATIVE CLAUSE-HEAD
  NEGATIVE-VERB
  ADPOSITION-NOUN
  NUMERAL-HEAD (or HEAD-NUMERAL-CLASSIFIER/MEASURE)
  ADJECTIVE-MARKER-STANDARD

• But also examples of HEAD-ATTRIBUTE order (e.g., sāng róu 桑柔 [mulberry-tender] ‘tender mulberry’) and NOUN-ADPOSITION order as well (Wang Li 1980; Shen 1986; Dai 1981).
Sun Chaofen (1991):
- an adpositional phrase with 以 can occur before or after the verb in Old Chinese,
- the adposition itself can be prepositional or postpositional, though the postpositional variant does not appear postverbally.
- when it occurred with the deictic pronoun 是 ‘that’, 以 ONLY appeared postpositionally. Again we see what seems to be a more conservative sentence pattern with pronouns.
- Sun suggests that based on this pattern, the postpositional, preverbal variant is the archaic order.
- As all of the Old Chinese adpositions are in some contexts predicative, the postpositional order is really just a reflection of verb-final word order.
Based on topic continuity counts of the type used in Givón (1983), Sun argues that the position of the prepositional variant before or after the verb is related to discourse-pragmatic factors—the preverbal type is more likely to be used in contrastive contexts.

As with the verb-final 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 sǔoyì 所以 [pronoun-postposition] ‘therefore’, héyǐ 何以 [what-postposition] ‘why, how’, shìyǐ 是以 [pronoun-postposition] ‘therefore’).
Adverbial quantifiers:

• In Old Chinese, generally appeared in preverbal position, (3a).
• In Modern Mandarin some quantifiers still appear in preverbal position, but more often those composed of a numeral and verbal classifier appear in postverbal position, (3b).

(3) a. 齐人三鼓. 《左传•庄公十年》
Qí rén sān gǔ (Zuozhuan: Zhuāng Gōng, Year 10)
Penton person three drum
‘The Qi army drummed three times’

b. 齐国军队敲了三次鼓。
Qígúo jūndùi qiāo-le sān-cì gǔ
Penton 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.
Nominal quantifier phrases

• In Old Chinese, the order was ‘noun + number + measure’ (there were few classifiers) or ‘number + noun’.

• The common order with measures (noun + number + measure) is the same as that of most Tibeto-Burman languages (see LaPolla 2002).

• In Modern Mandarin the order of elements is generally ‘number + measure/classifier + noun’, though in listings/catalogues the old order is maintained.
Clausal noun modifiers ("relative clauses")

• In the earlier Old Chinese, clausal noun modifiers do not have any overt relational or nominalizing marking (Serruys 1981:356):

(4) a. 敷前人受命《尚書·周書·大誥》
   fū [[qiánrén shòu]MOD mìng]NP
   transmit forbearer receive order
   ‘Transmit the order received by Zhou Gong’

• And this continued to some extent in later times:

  b. 夏(...) 南越獻馴象、能言鳥。《漢書·紀·武帝紀》
     “Summer [194 A.D.] (...) the Southern Yue presented a tamed elephant and a bird capable of speaking.”
• This is a common pattern found in verb-final languages and the only pattern reconstructable to Proto-Tibeto-Burman (see LaPolla 2002, 2008).

• In Modern Mandarin all clausal noun modifiers are nominalized and so form a compound with the head (see LaPolla 2017 on the developments of clausal noun modifiers).
Other

- The position of aspectual and mood particles at the end of the clause or intonation unit and the position of adverbs within the clause in Old Chinese is similar to what we find in Tibeto-Burman languages, and generally more similar to what we would expect from a verb-final language.
Conclusions on Sinitic
The facts presented here 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).
Tibeto-Burman

• Karen and Bai differ from most of the rest of the Tibeto-Burman languages mainly in terms of the position of the referential phrase representing the undergoer referent and in terms of having prepositions.

• They have the same pattern as in Old Chinese in terms of the major constituents: unmarked verb-medial order but verb-final order as a marked word order possibility.

• The rest of Tibeto-Burman has verb-final word order as the unmarked constituent order, and where adpositions have developed they are generally post-positions.
• What is significant is that the conditions on the use of the marked word order pattern in Bai are almost exactly the same as those of Old Chinese: it is used when the second referential phrase 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.
• Karen (e.g., Solnit 1997) has similar word order patterns, with genitives and nominal modifiers coming before the noun and number and the classifier following the noun, while adjectival and verbal modifiers follow the verb.

• 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 because of the influence of the surrounding Tai and Mon-Khmer languages.

• In terms of phrase-internal order, Karen is very similar to Old Chinese, differing 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 order.
Phrase-level orders

• 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 pattern in the leftmost column, followed by that of the minority pattern and then the number of mixed languages. 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

<table>
<thead>
<tr>
<th>Dominant</th>
<th>Minority</th>
<th>Dominant</th>
<th>Minority</th>
<th>Dominant</th>
<th>Minority</th>
</tr>
</thead>
<tbody>
<tr>
<td>dem-h (60)</td>
<td>h-dem (29)</td>
<td>dem-h-dem (7)</td>
<td>mixed (17)</td>
<td>total: 113</td>
<td></td>
</tr>
<tr>
<td>h-att (66)</td>
<td>att-h (25)</td>
<td>mixed (31)</td>
<td>total: 122</td>
<td></td>
<td></td>
</tr>
<tr>
<td>rel-h (65)</td>
<td>h-rel (7)</td>
<td>mixed (10)</td>
<td>total: 82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h-num (97)</td>
<td>num-h (14)</td>
<td>mixed (14)</td>
<td>total: 125</td>
<td></td>
<td></td>
</tr>
<tr>
<td>neg-v (69)</td>
<td>v-neg (39)</td>
<td>mixed (12)</td>
<td>total: 120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>gen-h (121)</td>
<td>h-gen (Ø)</td>
<td>mixed (Ø)</td>
<td>total: 121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>st-(m)-att (74)</td>
<td>att-(m)-st (Ø)</td>
<td>mixed (Ø)</td>
<td>total: 74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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 patterns, 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), and it is my own gut feeling that HEAD-DEMONSTRATIVE is the older order, yet given the numbers presented in Table 1, and the fact that the other old written languages (Burmese, Newar, Tangut) in Tibeto-Burman and also Old Chinese all have DEMONSTRATIVE-HEAD order, I am forced to conclude that this is the older order.
Good examples for supporting my hypothesis that the development of a postverbal focus position motivated the change to verb medial order in Chinese are examples in which referential phrases in otherwise solidly verb final languages appear in postverbal (clause-final) position for emphasis of their status as focal constituents, as in the following Tamang examples (from Taylor 1973:100-101):

(5) a. asu-ce-m yampu-m ‘khana ‘khana kor-jeht-ci tinyi syoo-ri.
   Actor Location Location Location Event Time
   ‘Where did you go for a stroll around Kathmandu this morning, Asu?’

   b. ‘dehre-no chyaa-la thenyi-’maah-ta-m.
      Time State Site
      ‘Now they will receive (the money).’
c. ta-ci kon ‘dehre bis-bahrsa.
   Event Vocative Time Undergoer
   ‘Now twenty years have passed, Kon.’

d. Tup-’maah them-pala’Tim chyau-’maak-ri.
   Undergoer State Site
   ‘The threads were placed in the sides (of the loom).’

e. ‘icu-’maah-ri ‘raa-pi ‘phinyi-ka cung-pala yaa-ce hoi.
   Site Undergoer State Instrument
   ‘Here (in these places) the weaving comb is caught by the hand.’

f. ken ca-ci the-ce-no.
   Undergoer Event Actor
   ‘It was indeed he who ate the rice.’
• This is a marked narrow focus construction, the opposite (in terms of the position of the focused element) of the one we saw in Old Chinese, as the unmarked focus position is preverbal in Tamang.
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, we have seen evidence in Tamang of this type of pattern, and it may exist in many 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 could have caused a change in the unmarked position of the undergoer, as the referential phrase representing the undergoer is most often in focus position cross-linguistically.

• 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 elicited data, or is only used for 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 sentences.
• Given all the facts discussed here, there is a strong case for the view, originally proposed by Terrien de Lacouperie (1887, Chapter 1) and Stuart 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.
Thank you!
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