

THE CHINESE AND TIBETO-BURMAN WORDS FOR 'BLOOD'¹

L. Sagart

Centre de Recherches Linguistiques sur l'Asie Orientale
EHESS (URA 1025 du CNRS)

> <

The principal Chinese word for 'blood' is *xue*₄ 血, Middle Chinese *xwet*². Some proposed OC reconstructions for this word have been: Karlgren **xiwet*, Li **xiwet*, Baxter **hwit*, Starostin (1995) **shwī-k* > *swhīt*. This word has been treated as a genetic cognate of TB **s-hywəy* 'blood' (Benedict 1972: 51 # 222). Starostin (1995) further proposed a connection with a form labeled 'Proto-North-Caucasian' he himself reconstructed: this is discussed in Sagart (1995b). 'Blood' is a basic notion: it is part of the Swadesh 100 word-list. Perhaps for this reason, the possibility of borrowing has never been seriously envisioned. However, as I have shown (Sagart 1995a; 1995c; 1996), influence of Chinese on its southern and western neighbors, the MY and TB languages, has been extremely intimate and intense, and lexical borrowing from Chinese into TB and MY has gone well beyond the limits of cultural vocabulary. In this paper I will present evidence showing that the TB forms subsumed under Benedict's reconstruction **s-hywəy* 'blood' are such borrowings from Chinese. I will first discuss the pronunciation of the OC word for 'blood', and then turn to the comparative aspect of the question.

1. Reconstructing the pronunciation of *xue*₄ 血 in OC

1.1 the rhyming part

The word *xue*₄ 血 'blood' occurs once as a rhyme in the Odes (*Xiao Ya*, Ode 194), rhyming as **it*: for this reason Karlgren, Li and Baxter have reconstructed the rhyme of *xue*₄ 血 as **-it*. This, however, poses a problem for the phonetic series of *xue*₄ 血, which includes several forms going back to OC **-ik* and **-ek*³ unambiguously. Alternation between (*Shi Jing* = late) OC rhymes **-it/n* and **-ik/ŋ* in a phonetic series has some parallels (for instance *ji*₂ 𠂔 **tsjik* > *tsik* and **tsjit* > *tsit*; *jie*₂ 𠂔 **tsit* > *tset*): it indicates early (pre-*Shi-Jing*) OC **-ik/ŋ* (see the discussion in Baxter 1992: 300-301). This early OC rhyme was lost before the Odes: it underwent a split development, the nature of which is unknown (dialectal?). In one development, early OC **-ik* palatalized to **-it*, merging with original **-it*; in another development, the vowel was changed to *-e-* or *-i-*, allowing the

final velar to be preserved: the outcome was *-ik or *-ek. As pointed out by Baxter, these developments had already taken place in the Odes. This explains the *-it rhyming of *xue*₄ 血 in Ode 194. In what follows, early (pre-*Shi Jing*) OC reconstructions will be used.

While Starostin (1995) recognized the velar nature of the final consonant at an early level, he treated it as a suffix, making however no suggestion as to what its function might be. Benedict (1972: 157, text and note 428) and Baxter (1993) likewise treated final -t in their reconstructions as a suffix. Benedict (p. 158) called the suffix ‘nominal’, which will not do in the case of the comparison for ‘to sleep’ (see below, section 2). However he left open the possibility that final -t in ‘blood’ might represent “a glottalization after the high front vowel” (p. 158), a suggestion later followed by Bodman (1980) and Coblin (1986: 31). In fact there is not the slightest reason within Chinese for regarding the final consonant in ‘blood’ and other words entering into the same correspondence as a suffix. The suffix is simply the price Benedict, Baxter and Starostin are willing to pay in order to achieve regularity of sound correspondence.

1.2 the onset

The possible OC sources of MC initial xw- are: (1) *hw-; (2) *hm-; (3) *hngw-. Which of these was the initial of *xue*₄ 血 in OC? While I know of no evidence in favor of solution (3), there is much in Chinese to support solution (2). This evidence has been overlooked by previous authors, essentially (it seems) because of the support Benedict’s TB reconstruction *s-hywəy ‘blood’ appears to offer for solution (1). This poses the problem of the relative weight of Chinese and foreign evidence in reconstructing the pronunciation of OC words. At this point a short methodological excursus is unavoidable.

1.2.1 excursus: internal and external evidence in the reconstruction of OC

Admitting foreign evidence poses no problem when the probable direction of sound change shows the foreign form to be the more archaic: for instance, VN *kim*₁ ‘needle’ clearly is admissible evidence in support of a velar origin of the MC palatal initial in MC *tsyim* ‘needle’. Likewise, TB *gip ‘ten’ and MC *dzyip* ‘ten’. We do not expect a palatal to become velar preceding /i/. In cases like this, it matters little whether the foreign and Chinese forms are cognate or shared by contact. In the case of ‘blood’, however, the TB initial is not more archaic than the MC initial, and direction of sound change does not help us decide which, of Middle Chinese xw- and TB *hyw-, is the more basic. In such cases, it matters a

lot whether the Chinese and foreign words are true cognates or not. Only if they are true cognates can one argue that they are phonetically close because they have changed little since the proto-language. But can we really be sure that the usual alternative explanations -chance and borrowing- can be excluded? In order to exclude them we need to argue from sound correspondences: but sound correspondences in turn depend on our Chinese reconstruction, which is itself partly based on the TB evidence...the procedure is obviously circular. I would argue that where direction of sound change does not indicate that a foreign form is more archaic than the corresponding Chinese form, foreign evidence should not be used in reconstructing OC, at least until all the resources within Chinese have been exhausted, and then only as corroboration of the reconstruction arrived at on the basis of the Chinese-internal evidence.

In what follows, I will review the Chinese-internal evidence that bears on the reconstruction of the initial of *xue*₄ 血 ‘blood’. It will be seen that part of the evidence, described in section 1.2.2, supports the *hm- hypothesis, against the TB reconstruction; while another part of the evidence, summarized in section 1.2.3, is in agreement with the TB reconstruction, supporting the *hw- hypothesis. This basic conflict between the Chinese-internal and Chinese-external evidence, and within the Chinese-internal evidence itself, will then be solved in section 1.2.5 after a discussion of the chronology of the change from OC *hm- to MC xw- in section 1.2.4. I first review the evidence in support of the *hm- hypothesis.

1.2.2 evidence for *hm-

1.2.2.1 character alternations in early texts

The received version of the *Shun Dian* 舜典 chapter of the *Shang Shu* has the sentence *wei*₂ *xing*₂ *zhi*₁ *xu*₄ *zai*₁ 惟刑之恤哉! “the punishments, to them you should carefully attend!” (translated by Karlgren). In his *Shi Ji* (五帝本記), Sima Qian paraphrased the corresponding passage in the *Jin Wen* version of the *Shang Shu* as *wei*₂ *xing*₂ *zhi*₁ *jing*₄ *zai*₁ 惟刑之靜哉! It is usually assumed that the *Jin Wen* version seen by Sima Qian had *mi*₄ 謐 *mji[k,t] > mjit (IV) ‘tranquilizing words; silent’ for Sima’s *jing*₄ 靜 ‘quiet’, as a gloss in the *Er Ya* 《謐，靜也》 “*mi*₄ means *jing*₄ ‘tranquil’”. This is discussed at length in Karlgren (1948, gloss 1271). Karlgren convincingly argued that the original text of the *Shang Shu* had *xu*₄ 恤. Based on his understanding of the pronunciation of the two characters in OC (謐 mjět, 恤 sjwět) he wrote:

"Si-ma Cheng believes that when Fu Sheng orally transmitted the text, one substituted [謚] to [恤] for sound similarity, which is obviously impossible"

But Bodman (1954: 63sq), assuming different reconstructions (謚 zmiĕt, 恤 smiĕt):

"(...) this does not prevent the variant [謚] from having slipped in the text used by the author of the *Shih Chi*, Ssu-ma Ch'ien, because in Early Han, there would have been a great deal of similarity in sound between 謚 (zm- ?) and 恤, if the latter had had the cluster sm-".

Bodman's reason for supposing a cluster sm- in *xu₄* 恤 is a sound gloss in Liu Xi's *Shi Ming*, compiled ca. 200 C.E.: 戍, 恤也. Evidence for a labial nasal in the onset of *xu₁* 戍 *s-mjit > swjit, the name of a cyclical sign, comes from the Tai language Ahom where the corresponding sign is *mit* (Li 1945).

Bodman thought the data very suggestive that the labial cluster was still in existence in Liu Xi's time. Actually this need not be so: Liu Xi's gloss makes perfectly good sense if both *xu₁* 戍 and *xu₄* 恤 were [swjit] at the time. Nonetheless, substitution of *mi₄* 謚 for *xu₄* 恤 in the *Shun Dian* chapter of a *Jin Wen* version of the *Shang Shu* seen by Sima Qian (?145-?86 B.C.E.) does argue for a sm- cluster in *xu₄* 恤 in the Western Han period. The substitution was presumably made at or after the time when the *Jin Wen* text was established by Fu Sheng 伏勝 after the fall of the Qin dynasty in 206 B.C.E. and certainly before Sima Qian's death in ?86 B.C.E. Note that a *zm- cluster in *mi₄* 謚 is not necessary for the substitution: sound similarity between (late) OC 謚 *mjit and 恤 *s-mjit seems sufficient.

In his commentary to the *Shuo Wen Jie Zi* 說文解字, the Qing dynasty philologist Duan Yucai 段玉裁 (v. under *xu₄* 恤) noticed that almost the same alternation of characters as in the *Shun Dian* chapter of the *Shang Shu* occurs in different versions of a line in Ode 267 of the *Shi Jing*. The *Mao* 毛 text, as seen by Zheng Xuan 鄭玄 (127-200 C.E.), gives the first line of the second stanza as *jia₃ yi₃ yi₄ wo₃* 假以溢我, but the same passage as quoted in the *Shuo Wen Jie Zi* (finished in 100 C.E.) reads *e₂ yi₃ mi₄ wo₃* 以謚我 and the *Zuo Zhuan* (Xiang 27) cites it as *he₂ yi₃ xu₄ wo₃* 何以恤我. Duan Yucai, citing a parallel in the *Zhuang Zi*, convincingly argued that *yi₄* 溢 (*ljit > yit) in the *Mao* version is a scribal error, based on graphic similarity, for *xu₄* 恤, which, according to him, is itself a *jiajie* 假借 for original *xu₄* 恤 'tranquil', the line meaning "with fine words he tranquilizes us". Since *mi₄* 謚 'tranquilizing words' in the *Shuo Wen* quotation

provides the same meaning as *xu*₄ 恤, it is probably a substitution for *xu*₄ 恤. It cannot be known by whom or when the substitution was made: the completion of the *Shuo Wen* in 100 C.E. remains our only secure *terminus post quem non* for this substitution.

Substitution of *mi*₄ 謐 for earlier *xu*₄ 恤 or *xu*₄ 恤 in two different texts, respectively before 100 C.E. and before ?86 B.C.E., is hard to understand unless the phonetic series of *xue*₄ 血 included a labial nasal element.

1.2.2.2 word-family connections

To my knowledge, no serious Chinese word-family connections have been presented for *xue*₄ 血 'blood' or members of its phonetic series under the *hw-hypothesis⁴. In contrast the *hm- hypothesis provides a healthy network of contacts to m- words for the meanings 'blood' and 'quiet, silent'.

1.2.2.2.1 Blood

A very likely cognate of *xue*₄ 血 'blood' with plain initial *m- is *mie*₄ 𧄀 *m[e,i][t,k] > met⁵. The *Shuo Wen* says: 𧄀, 汚血也 "mie₄ means 'to defile with blood'"; and the *Guang Ya* adds: 𧄀, 血也 "mie₄ means 'blood'"^{6 7}.

1.2.2.2.2 Quiet, silent

A word-family relationship appears to exist between the following:

- *xu*₄ 恤 *hmjik > xwik 'still, quiet'
- *mo*₄ 默 *m[i,i]k > mok 'silent'
- *mi*₄ 密 *mrji[t,k] > mit (III) 'quiet, silent'
- *mi*₄ 謐 *mji[t,k] > mjit (IV) 'tranquilizing words; quiet, silent'.

All these words are glossed as *jing*₄ 靜 'quiet' in the classical lexica: *Shuo Wen*: 恤, 靜也 "xu₄ means 'quiet'"; *Guang Yun*: 默, 靜也 "mo₄ means 'quiet'"; *Erya*: 密, 靜也 "mi₄ means 'quiet'"; *Shuo Wen*: 謐, 靜語也。一曰無聲也。"mi₄ means 'tranquilizing words'; it is also said to mean 'silent'". These are all derivable from a root *mik 'quiet, silent'. Alternations involving voicelessness in sonorants, and the presence or absence of medial -j-, are certainly linked with morphology, although their nature and functions are not well understood. Medial -r- in *mi*₄ 密 is the infix described in Sagart (1993a); its main function in stative verbs is intensive. Extant textual evidence for this particular item does not allow verification of this point, but later evolution of *mi*₄ 密 to the modern meaning 'secret' does argue for a somewhat intensive sort of quiet.

1.2.2.3 External evidence: the Tujia word for 'blood'

The word for 'blood' in the outlier TB language Tujia 土家 of northwestern Hunan is *mie*₃₅ (Tian, He et. al. 1986). Tone 35 in Tujia often reflects an earlier final stop. This word seems somehow connected to the 'blood' word-family in Chinese. It is conceivable that the Tujia word continues a PTB etymon for 'blood', cognate with the Chinese word-family outlined above, if we can accept the idea that this etymon was replaced everywhere else in TB. However, Tujia's apparent Lolo-Burmese affiliation does not argue for a very early separation of Tujia from the rest of TB. Alternatively, the Tujia word could be a loan from Chinese. If so, it more likely reflects the very common form *xue*₄ 血 than the textually late and barely attested word *mie*₄ 巖. In that case, we must be dealing with a very early loanword, borrowed before the change of *hm- to xw-. A very early loan is conceivable given the easterly geographical position of Tujia, which bespeaks a very ancient history of contacts with Chinese. Whatever the explanation - true cognate or loanword -, this Tujia form argues for a labial nasal in the onset of *xue*₄ 血, since sound change from hm- to xw- is more plausible than the reverse.

1.2.3 evidence for *hw-

A few instances of connections between words of the series of *xue*₄ 血 and words with initial *(h)w- may be gleaned from early texts and from glosses and commentaries by Han scholars. I discuss them below.

1.2.3.1 The word for 'moat' in Ode 244

The *Mao* 毛 text of Ode 244 (3rd stanza, line 1) of the *Shi Jing* has *xu*₄ 洫 *hwjik > xwik, against *xu*₄ 洫 *hmjik > xwet in the *Han* 韓 version (as cited in the *Jing Dian Shi Wen* 經典釋文), the meaning being 'moat'. The phonetic series of *xu*₄ 洫 clearly involves no nasal, being of the *w- ~ *hw- type (occasionally with prefix *k-). This, then, might be taken as evidence supporting the *hw-hypothesis. However, it is clear that the original text of the Ode had *xu*₄ 洫: first, as noted by Karlgren (1964a, gloss 859), the word rhymes with *pi*₁ 匹 MC phjit (IV), which is fine for *xu*₄ 洫, but impossible for *xu*₄ 洫. Second, while *xu*₄ 洫 is well-attested in the meaning 'channel ~ moat', *xu*₄ 洫 appears nowhere else in that meaning (it occurs normally in the meaning 'swift flow'). Therefore *xu*₄ 洫 must be a later substitution based on sound similarity, as Duan Yucai convincingly argued.

The date of the substitution is difficult to establish. The *Mao* text used by Zheng Xuan in the 2nd century C.E. certainly had *xu*₄ 洫; and, as indicated below

(section 1.2.3.2), Xu Shen may have known about the alternation in the late 1st century C.E. Beyond these, we have no certainty. It is possible that the original *Mao* version, established in early Western Han, already had *xu*₄ 洩 for *xu*₄ 洩. It is also possible that the substitution was introduced in the copies made after the *Mao* version received official backing during the reign of Ping Di 平帝 (1 B.C.E.-6 C.E.).

1.2.3.2 the word 洩 in the *Shuo Wen Jie Zi*

A similar piece of evidence, also involving *xu*₄ 洩 and a word of the same phonetic series as *xu*₄ 洩, comes from the *Shuo Wen Jie Zi*: Xu Shen 許慎 stated that the word 洩 *hwjik > xwik ‘headache’ (no modern reading) was ‘read like’ (讀若) *xu*₄ 洩. This quite probably indicates that *xu*₄ 洩 had a fricative xw- onset in the late 1st century C.E. when Xu Shen was composing the *Shuo Wen*. Xu Shen was perhaps aware of the alternation between *xu*₄ 洩 and *xu*₄ 洩 in different versions of Ode 244, and this may have been a factor in his choice of *xu*₄ 洩 to illustrate the pronunciation of 洩.

1.2.3.3 The *Shi Ming* gloss for ‘blood’

In his *Shi Ming* (published ca. 200 C.E.), Liu Xi 劉熙 gave a paronomastic gloss for *xue*₄ 血 ‘blood’, connecting it to *huo*₄ 滂 *hwat > xwat ‘to flow abundantly; to splash’. While semantic development from ‘flow, gush’ to ‘blood’ is not impossible, the rhyme *-at cannot easily be related with *-ik in *xue*₄ 血 ‘blood’. Liu Xi’s paronomastic gloss does probably indicate, however, that *xue*₄ 血 had initial xw- in Liu Xi’s time.

Before we accept these elements as counter-evidence to the *hm- hypothesis, we need to make sure that they are earlier than the change of *hm- to xw-: for if these connections were established *after* that change, they would be quite natural and easy to explain under the *hm- hypothesis.

1.2.4 dating the change of *hm- to xw-

The date at which OC *hm- lost its nasal articulation and merged with original *hw- into xw- is not known. The early Buddhist transcriptions are of no help as the Chinese sounds involved were apparently not part of the source Indic pronunciation. Sound glosses by early Eastern Han commentators Du Zichun, Zheng Xing and Zheng Zhong are too few and contain little evidence bearing on the matter. Coblin (1983: 66-76) argued for partial retention of OC *hm- as a voiceless nasal in the pronunciation of Gao You 高誘 (fl. 196-219 C.E.). His conclusions are based on apparent segregation of *hm- and *hw- in Gao You’s

glosses, but the examples are only a handful and the situation described by Coblin could be accidental: we certainly find in the glosses of other middle and late Eastern Han commentators examples showing the change of *hm- to xw-. An instance of this is a gloss relating *huo*₃ 火 *hm[a]jʔ > xwaX to *hua*₄ 化 *hɲwraj-s > xwaeH in the *Bai Hu Tong Yi* (Coblin 1983: 155 # 28), a text transcribing oral discussions held in 79 C.E. It also seems virtually certain that *hm- had merged with *hw- in the pronunciation of Zheng Xuan 鄭玄 (127-200 C.E.), at least before the low vowel: this is indicated by items 67, 73 and 299 in Coblin's listing of Eastern Han sound glosses (Coblin 1983), which relate different *hm- words of the phonetic series of *wu*₂ 無 with different *(h)w- words of the phonetic series of *yu*₂ 于⁸.

Still earlier dates for the change are suggested by instances of loangraph characters in Qin-Han manuscripts on bamboo, silk and wood, which show contacts between *(h)m- and *(h)w- words. Some of these, which occur in manuscripts copied in early Western Han, are listed by Li Yu (1994: 47, ex. 26, 34, 37). An even earlier instance occurs in the Zhongshan tripod inscription, dated 309-304 B.C.E. (Marc 1993: 362, 366): the text has *er*₂ *huang*₂ 而皇 for *er*₂ *kuang*₄ 而況 'all the more', showing replacement of *kuang*₄ 況 with *huang*₂ 皇. Initial *w- in *huang*₂ 皇 *waŋ > hwang 'august' is indicated by the *xiesheng* and word-family relationship to *wang*₂ 王 *wjaŋ > wjang 'king'. Initial *hm- is probable in *kuang*₄ 況 *hmjaŋ-s > xwjangH 'increase', because of a pattern of contacts to *m- words throughout the phonetic series of *xiong*₁ 兕⁹.

The Zhong Shan example is isolated, however, and by itself cannot demonstrate a late 4th century date for the change. The examples of *tongjia* contacts in early Western Han manuscripts require further study. Much more work is needed before the chronology and geography of the change can be established with precision. Yet, at the very latest, we may be fairly confident that the change was at least incipient in the standard language from the time of the *Bai Hu Tong Yi* discussions (79 C.E.) onwards.

While we cannot be certain of the exact dates of the change, it is relevant to observe that overall, evidence for the *hm- hypothesis pertains to earlier periods than evidence for the *hw- hypothesis. The word-family connections presented in section 1.2.2.2 belongs to an early stage of the language, early OC or pre-OC; substitution of *mi*₄ 謚 for *xu*₄ 恤 in the *Shun Dian* chapter of the *Shang Shu* was seen by Sima Qian before ?86 B.C.E.. In contrast, the *Shuo Wen* and *Shi Ming* glosses supporting the *hw- hypothesis were written later, in the 1st and 2nd

centuries C.E. Evidence from the various Odes text versions is the least precisely datable, and appears to go both ways: substitution of *xu₄* 馘 for *xu₄* 洩 in the *Mao* text before 100 C.E. supports the *hw- hypothesis; while substitution of *mi₄* 謚 for *xu₄* 洩 in the text of Ode 267 as cited in the *Shuo Wen*, also before 100 C.E., argues for *hm-.

1.2.5 solving the dilemma

How can we decide, then, which of the two hypotheses, *hw- and *hm-, best accounts for the facts ? The *hw- hypothesis explains easily the contacts with *(h)w- described in section 1.2.3 but cannot easily account for the contacts with *m- described in section 1.2.2. The *hm- hypothesis explains easily the contacts with *m- described in section 1.2.2; it can also account for the contacts with *(h)w- described in section 1.2.3, *assuming that they relate to a period later than the change from OC *hm- to xw-*. Even though we are not able to date the change with precision, this assumption is quite reasonable in view of the general chronology of the evidence: evidence for *hm- comes from the period pre-OC or early OC to before 100 C.E., while evidence for *hw- concentrates in the period before 100 C.E. to 200 C.E., and the period 206 B.C.E. to 100 C.E. gives conflicting information. In this connection it will be recalled that we have a reliable sound gloss showing the change *hm- > xw- in the *Bai Hu Tong Yi*, dated 79 C.E.

In conclusion, the *hm- hypothesis must be preferred on Chinese-internal grounds, because under certain chronological assumptions (which available evidence does not contradict), it allows a rational explanation of all the facts: it explains the contacts to *m- before the change *hm- > xw-, and the contacts to (h)w- after the same change; whereas the *hw- hypothesis does not allow a rational explanation of all the facts under *any* circumstance. Consequently, based on Chinese-internal evidence, we must accept the *hm- hypothesis and reconstruct *xue₄* 洩 ‘blood’ as OC *hmik.

2. The Chinese and TB words for ‘blood’

The comparison of the Chinese word for ‘blood’ and the TB cognate set under Benedict’s reconstruction TB *s-hywəy ‘blood’ is in all probability genuine (i.e. not a chance resemblance), because the correspondence of finals OC *-ik : TB *-əy has solid parallels:

- **day, sun** *ri*₄ 日 *njik¹⁰ > nyit : TB *nəy
- **to sleep** *mei*₄ 寐 *mjik-s¹¹ > mjijH : TB *(s-)mwəy

Let us examine the correspondences of initials and finals in the comparison for ‘blood’.

2.1 the correspondence of initials

Reconstructing the OC word for ‘blood’ as *hmik raises the question as to how OC *hm- can correspond to TB *s-hw-. A solution to this riddle appears if we suppose a TB borrowing from Chinese after the change *hm- > xw- took place in Chinese. Pre-initial s- in the TB form has been plausibly interpreted as a body-part prefix (Benedict 1972: 106), and may be ignored. It was presumably added in TB after the borrowing, though not in all languages.

I am not aware of any parallels for the correspondence of initials OC hm- : TB *hw-, but this is in no way anomalous, as *hm- is not a very common OC initial. I am therefore unable to show that other words entering into the same correspondence of initials as ‘blood’ are Chinese loanwords. It is relevant, however, to observe that another correspondence for OC *hm- exists, to TB m-: this correspondence includes in particular the words for ‘fire’: OC *hm[a]j? > xwaX : TB *mey. It may be hypothesized that the correspondence OC *hm- : TB m- belongs to the genetic layer and the correspondence OC *hm- : TB hw- to the borrowed layer. Before we accept this scheme, we need to examine the correspondence of finals.

2.2 the correspondence of finals

The correspondence of finals is better represented and worth some discussion. Principally two TB finals, *-ik and *-əy in Benedict’s system, compete for the same early OC category: *-ik. An example of the first correspondence is *jie*₂ 節 *tsik > tset ‘joint of bamboo’ : TB *tsik ‘joint’ (Benedict 1972: 27). In that correspondence (OC *-ik : TB *-ik; and OC *-iŋ : TB *-iŋ), which also includes words for ‘year’, ‘tree’ and ‘new’, TB reveals a very early feature of OC: unpalatalized velar endings before /i/. The correspondence OC *-ik : TB -ik therefore may not implausibly be ascribed to the genetic layer, at least in those words which in Chinese have their velar ending palatalized at a later date. The other correspondence, to TB *-əy, has a palatal ending corresponding to an

etymological velar stop in OC which becomes palatalized to *-it, in mid- to late Zhou times. If this correspondence also belongs to the genetic layer, we have no explanation for (a) the existence of two correspondences for OC *-ik¹², and (b) the peculiar phonetics of the second correspondence. Again, a solution to this riddle appears if the correspondence OC *-ik : TB *-əy is part of the borrowed layer; TB *-əy may then be seen as the rendition of a phonetic particularity of the donor dialect (donor *-iy^h < late OC *-it-s < early OC *-ik ? or donor *-iy? < early OC *-ic < late OC *-ik ?).

Treating the correspondence of finals exhibited by the comparison for ‘blood’ as part of the borrowed layer provides a simple account of the membership of the correspondence on the Chinese side. We may remember that early OC *-ik underwent an unconditioned split in later stages of the language, sharing the fate of early OC *-it in some words and of early OC *-ik in others. In later evolution *-it from early OC *-ik is indistinguishable from *-it from early OC *-it; and *-ik from early OC *-ik is indistinguishable from *-ik from early OC *-ik. Let the symbols A, B, C and D stand for these four sets, as follows:

- A = early OC *-ik > late OC *it (*jie*₂ 節 early OC *tsik > late OC *tsit ‘joint of bamboo’; *mei*₄ 寐 early OC *mjik-s > late OC *mjit-s > ‘to sleep’)
- B = early OC *-ik > late OC *-ik (*xu*₄ 洫 early OC *hmjik > late OC *hmjik ‘water-channel’, *xu*₄ 洫 early OC *hmjik > late OC *hmjik ‘still, quiet’)
- C = early OC *-it > late OC *-it (*qi*₁ 漆 early OC *tshjit > late OC *tshjit ‘varnish’)
- D = early OC *-ik > late OC *-ik (*xu*₄ 洫 early OC *hwjik > late OC *xwik ‘swift flow’)

Suppose the correspondence OC *-ik : TB *-əy is genetic: we should expect to find Chinese words from sets A and B, but not from C and D. What we find instead is words from sets A and C:

Set A:

- **blood** *xue*₄ 血 *hmik > xwet : TB *s-hywəy
- **day, sun** *ri*₄ 日 *njik > nyit : TB *nəy
- **to sleep** *mei*₄ 寐 *mjik-s > mjijH : TB *(s-)mwəy

Set C:

- **varnish** *qi₁* 漆 *tshjit > tshjit : TB *r-tsəy ‘juice’¹³
- **to arrive** *zhi₄* 至 tjit-s > tsyijH : TB *m-tyəy ‘to come, arrive’¹⁴

For evidence that *ri₄* 日 ‘day, sun’ belongs to set A rather than C, see footnote 10. It would not change our conclusions if this word really belonged with set C.

Evidently, sets A plus C define a category which corresponds to late OC *-it, rather than to early OC *-ik. This is a necessary consequence of the borrowing interpretation, which places the height of Chinese-TB interaction in the wake of the Chinese conquest of Sichuan in 316 B.C.E. (Sagart 1996). Of course, one might argue that the examples from set C presented above either are invalid, or really belong with set A¹⁵, and that examples from set B are missing by accident. It is true that contacts between *-it and *-ik in phonetic series are not very frequent, but more instances can be discovered in the word-families. Compare the following pair:

ni₄ 昵 early OC *nrjik > late OC *nrjit ‘close-standing, familiar, intimate’
ni₄ 暱 early OC *nrjik > late OC *nrjik ‘near, familiar’ (rhymes as -ik in Ode 224).

From this point of view the lack of set B examples is anomalous under the genetic interpretation.

We do have independent evidence that some of the words which enter into the correspondence of finals: early OC *-ik : TB *-əy are Chinese loanwords. The word *mei₄* 寐 *mjik-s ‘to sleep’, which corresponds to TB *(s-)mwəy ‘to sleep’ probably originates in the *mik ‘quiet, silent’ word-family outlined above (section 1.2.2.2), as implied by the *Shi Ming* gloss: 寐謐也，靜謐無聲也 “*mei₄* 寐 is equivalent to *mi₄* 謐 ‘quiet and silent’”. For a semantic parallel, cf. the shift from ‘quiet’ to ‘sleep’ in Old Irish (Buck 1949). Thus, the TB meaning ‘to sleep’ matches the secondary semantics of the Chinese form, while the primary Chinese meaning ‘quiet, silent’ is not to be found in the TB set. TB *(s-)mwəy may therefore be suspected of being a Chinese loanword independently from the correspondence of finals. The foregoing discussion yields the scheme in Table 1:

	genetic layer	borrowed layer
correspondence of initials	OC hm- : TB m-	OC hm- : TB hw-
correspondence of finals	OC -ik : TB -ik	OC -ik : TB -əy

Table 1: TB correspondences for OC *hm- and -ik in the genetic and borrowed layers.

Assuming this scheme is correct, can we find evidence of phonetically similar loanwords in the vocabulary of other non-Chinese languages having sustained early contact with Chinese? Wang and Mao (1995) reconstruct Proto-Miao-Yao * η wo:i_A ‘sun, day’, highly reminiscent of TB *nəy ‘day, sun’, discussed above. Both correspond to *ri*₄ 日 early OC *njik > late OC *njit. It is necessary to suppose that Proto-Miao-Yao borrowed the word for ‘sun, day’ from the same variety of Chinese that gave the words for ‘blood’, ‘day, sun’ and ‘sleep’ to TB. Proto-Miao-Yao *-wo:i and TB *-əy are equivalents of late OC *-it, phonetically perhaps *-iy? or *-iy^h in the donor dialect. A direct Miao-Yao borrowing from TB (or the reverse) is implausible because most of the vocabulary shared by TB and MY is also shared with Chinese.

In the present state of TB comparison, it is not possible to say which cognate set continues the original TB etymon for the meaning ‘blood’. It is conceivable, as noted above, that for the notion ‘blood’ PTB had a cognate of *xue*₄ 血 with labial initial, and that this putative word was replaced in most TB languages, but preserved in Tujia *mie*₃₅. This, however, is far from certain, since an early borrowing from Chinese *xue*₄ 血 is an alternative explanation, as we have seen. It is also conceivable, and perhaps more likely from a TB-internal point of view, that the PTB etymon for ‘blood’ was the precursor of WT *khrag* ‘blood’ and Ersu *ʂo*₅₅ ‘blood’ (recurrent correspondences).

3. Conclusion

A historical scenario of TB expansions out of a core area in present-day Gansu and Sichuan was outlined in Sagart (1996). This scenario allows for long-term intimate contact with, and massive borrowings from Chinese, as a direct result of the conquest and subsequent occupation of Shu 蜀 (present-day Sichuan) by the northwestern Chinese state of Qin 秦 in 316 B.C.E. From this point of view the main donor to TB (also one of the Chinese donors to Miao-Yao) would be the dialect of Qin as spoken in Sichuan after the conquest. Chinese occupation of Sichuan, then of Yunnan, was followed in late Eastern Han by large-scale territorial expansions by TB speakers whose languages included a very large lexical component from Chinese. These movements led to the TB settlement of the Tibetan plateau in the West and of Burma in the south. Only the precursors of TB languages now spoken in Eastern India and in semi-arid locations in Gansu were relatively sheltered from Chinese lexical influence.

The extent of borrowing from Chinese was unusually large: many basic items were borrowed, including the Chinese 1st person singular pronoun, the numeral ‘three’, etc. (Sagart 1995c, 1996). Seen from this angle, the borrowing of a body-part term such as ‘blood’ may seem less striking.

In conclusion, I hope that the foregoing discussion illustrates the circularity of relying on TB evidence in reconstructing OC, and then claiming that the closeness of fit between them argues for a very close genetic relationship. The word for ‘blood’ is another example of a putative cognate which turns out to be a Chinese loanword into TB. While genetic relationship between Chinese and TB is demonstrated by morphological parallels between them (Mei 1989), it is irrational to suppose that every lexical comparison between Chinese and TB is inherited from the ancestor language. Almost incredibly, this is the stance taken by most Western investigators of the Chinese-TB relationship. The most urgent task in Chinese-TB comparison is to sort out the loanwords from the genetic material. Only when this is done will we be able to appreciate the closeness of the relationship.

To Prof. Mei Tsu-lin, whose learned and insightful investigations have left a profound imprint on the entire field of Chinese historical linguistics, this paper is respectfully presented.

Abbreviations

MC: Middle Chinese; OC: Old Chinese; MY: Miao-Yao; PTB: Proto-Tibeto-Burman; TB: Tibeto-Burman; VN: Vietnamese; WT: Written Tibetan.

References

- Baxter, W. H. III (1992) *A Handbook of Old Chinese phonology*. Trends in Linguistics Studies and Monographs # 64. Berlin: Mouton de Gruyter.
- Baxter, W. H. III (1993) *Some phonological correspondences between Chinese and Tibeto-Burman*. 26th Conference on Sino-Tibetan Languages and Linguistics, Osaka, Sept. 13-17, 1993.
- Benedict, P.K. (1972) *Sino-Tibetan: a Conspectus*. Cambridge: University Printing House.

- Bodman, N. C. (1954) *A linguistic study of the Shi Ming*. Harvard-Yenching Institute Studies XI. Cambridge, Mass.: Harvard University Press.
- Bodman, N. (1980) Proto-Chinese and Sino-Tibetan: Data towards establishing the nature of the relationship. In Frans Van Coetsem and Linda Waugh (eds.) *Contributions to historical linguistics*, 34-199. Leiden: E.J. Brill.
- Buck, C. D. (1949) *A dictionary of selected synonyms in the principal European languages*. Chicago: Chicago University Press.
- Coblin, S. (1983) *A handbook of Eastern Han sound glosses*. Hongkong: the Chinese University Press.
- Coblin, S. (1986) *A Sinologist's handlist of Sino-Tibetan Lexical Comparisons*. Monumenta Serica Monograph Series XVIII (Roman Malek, ed.). Nettetal: Steyler Verlag.
- Karlgren, B. (1948) Glosses on the Book of Documents. *Bulletin of the Museum of Far Eastern Antiquities No 20*.
- Karlgren, B. (1964a) *Glosses on the Book of Odes*. Göteborg: Elanders Boktryckeri Aktiebolag.
- Karlgren, B. (1964b) *Grammata Serica Recensa*. Göteborg: Elanders Boktryckeri Aktiebolag.
- Li Fang-kui (1945) Some Old Chinese loan words in the Tai languages. *Harvard Journal of Asian Studies* 8, 3-4: 333-342.
- Li Yu (1994) *Qin-Han jian du bo shu yinyun yanjiu*. Beijing: Dangdai Zhongguo.
- Marc, F. (1993) *L'écriture du Royaume de Zhongshan*. Unpublished doctoral dissertation, Ecole des Hautes Etudes en Sciences Sociales, Paris, July 1993.
- Matisoff, J. A. (1978) Variational Semantics in Tibeto-Burman. *Occasional papers of the Wolfenden Society*, vol. VI. Philadelphia: Institute for the Study of Human Issues.
- Matisoff, J. A. (1992) Following the Marrow: two parallel Sino-Tibetan etymologies. *LTBA* 15.1 (Spring 1992): 159-77.

- Mei Tsu-lin (1989) The causative and denominative functions of the *s- prefix in Old Chinese. *Proceedings of the Second International Conference on Sinology*, Taipei, June 1989. Section on Linguistics and paleography, 33-51.
- Sagart, L. (1992) Comment/ Roundtable discussion on the regularity of Chinese/TB sound correspondences. Paper presented at the 25th ICSTLL - Berkeley, October 14-18, 1992.
- Sagart, L. (1993a) L'infixe -r- en chinois archaïque. *Bulletin de la Société de Linguistique de Paris, Tome LXXXVIII, fascicule 1*, pp. 261-293.
- Sagart, L. (1993b) New views on Old Chinese phonology. *Diachronica vol. X, NO.2*: 237-260.
- Sagart, L. (1995a) "Questions of method in Chinese-Tibeto-Burman comparison". *Cahiers de Linguistique Asie Orientale 24, 2*: 245-255.
- Sagart, L. (1995b) Comments from Sagart. In: William S.-Y. Wang (ed.) *The Ancestry of the Chinese Language*. Journal of Chinese Linguistics monograph series no. 8, pp. 337-372.
- Sagart, L. (1995c) "Some remarks on the Ancestry of Chinese". In: William S.-Y. Wang (ed.) *The Ancestry of the Chinese Language*. Journal of Chinese Linguistics monograph series no. 8, pp. 195-223.
- Sagart, L. (1996) Old Chinese *nga 'P': inherited or innovated? *Paper presented at the 29th Sino-Tibetan Conference at Leiden, 10-13 October 1996*.
- Starostin. S. A. (1995) Old Chinese vocabulary: a historical perspective. In: William S.-Y. Wang (ed.) *The Ancestry of the Chinese Language*. Journal of Chinese Linguistics monograph series no. 8, pp.225-251.
- Tian, Desheng, He Tianzhen et. al. (1986) *Tujia Yu Jianzhi* [A sketch of the Tujia language]. Beijing: Minzu.

Endnotes

¹ A preliminary version of this paper was presented at the 28th International Conference on Sino-Tibetan Languages and Linguistics, October 6-10, 1995,

University of Virginia, Charlottesville, Virginia. I am indebted to Wolfgang Behr for supplying several bibliographical references bearing on Chinese epigraphy.

² Baxter's MC notation (Baxter 1992) is used here. The OC reconstructions are based on Baxter (1992) with my own emendations (Sagart 1993b and forthcoming).

³ Karlgren arbitrarily separated the characters with phonetic *xue*₄ 血 into a *-t set (GSR 410: *xue*₄ 血 MC *xwet* 'blood'; *xu*₄ 恤 MC *swjit* 'solicitude, pity, sorrow'; *xu*₄ 卹 MC *swjit* 'solicitude, care about') and a *-k set (GSR 930: *xu*₄ 洫 MC *xwik* 'water-channel, ditch, moat', *xu*₄ 恤 MC *xwik* 'still, quiet', and *xu*₄ 殞 MC *xwek*, *xwjek* 'burst, cleave, of egg shells').

⁴ Matisoff (1978; 1992) claimed that *xue*₄ 血 'blood' and *sui*₃ 髓 'marrow' are cognates. This is plainly absurd since as shown in (Sagart 1992) the word for 'marrow' is a Ge 歌 category word with rounded vowel (OC *-oj), belonging to a phonetic series with lateral initials: it can be reconstructed as *s-hljoj? > swjeX.

⁵ MC reading according to the *Guang Yun*. The *Ji Yun* gives these additional readings: menH, mat, man.

⁶ It was proposed in Sagart (1995) that *xue*₄ 血 *hmik > *xwet* 'blood' and *mai*₄ 脈 *mrek > *mek* 'vein' are cognate. This poses no semantic problems, cf. the Brythonic shift from 'vein' to 'blood' (Buck 1949). Under this explanation, infixes *-r- has its habitual 'multiple object' semantics (Sagart 1993a), cf. the plural in Fr. *les veines*. However, a different interpretation is equally possible: *mai*₄ 脈 'vein' might be a prefixed form *m-rek, relatable to *li*₃ 理 *(m)-rji? 'fibres in muscles; cut jade according to veins' and *le*₄ 隄 *rik 'vein or duct in soil'.

⁷ More speculative, but conceivable, is a word-family connection to the other word for 'blood': *huang*₁ 盪 *hman > *xwang* 'blood' (of sacrificial sheep), which occurs in the *Zuo Zhuan* (Xi 15). This is perhaps relatable to *xue*₄ 血 and *mie*₄ 蟻 if we suppose a variant with nasal-ending early OC *hmiŋ, evolving normally to late OC *hmiŋ, with vowel ablaut resulting in *hman.

⁸ See also item # 194 in Coblin's list.

⁹ Compare *xiong*₁ 兄 *hmrijaŋ > *xwjaeng* 'elder brother' with *meng*₄ 孟 *mrjaŋ-s > *mjaengH* 'elder brother'; *huang*₃ 恍 *hmjaŋ > *xwjangX* 'confused' with *mang*₂ 茫 *maŋ > *mang* 'confused, obscure'. Our word *kuang*₄ 況 *hmjaŋ-s > *xwjangH* 'increase' itself may be relatable to a root *maŋ 'great', cf. *mang*₂ 茫 *maŋ > *mang* 'great', *meng*₄ 孟 *mrjaŋ-s > *mjaengH* 'great'.

¹⁰ Final *-ik in *ri*₄ 日 is indicated by the reading *nyik* (而力切) in the *Ji Yun*.

¹¹ That *mei*₄ 寐 ended in *-ik follows from word-family evidence which will be detailed in section 2.2.

¹² Based on suggestions by Bodman (1980: 125-132), Coblin (1986: 31) accounts for the rhyme correspondence in the comparisons for ‘blood’, ‘day’ and ‘varnish’ by setting up a ‘ST’ rhyme *-iʔ evolving to TB *-iy (= our *-əy) and to OC *-it. Under this explanation the contacts to -ik shown by ‘blood’ and ‘sun’ are difficult to understand. Even though Coblin accepts the view that OC *-ik changed to -it (p. 30), he has to explain the contacts between *-ik and *-ik differently in the series of *ji*₂ 即 and in the series of *xue*₄ 血!

¹³ In particular Written Tibetan *rtsi* ‘all liquids of somewhat great consistency, such as the juice of some fruits, paint, varnish’.

¹⁴ This reconstruction is adapted from Coblin’s reconstruction ‘PST’ *mtyid ‘to come, arrive’, based on the TB side on WB *cel* ‘complete, not deficient; to come, arrive, as an appointed time’; and WT *mchi-ba* ‘come, go, exist’ (Coblin 1986: 56).

¹⁵ It is possible that *zhi*₄ 至 originally ended in *-ik because *shi*₄ 適 *s-tjek > syek ‘to proceed, go to, come to’ is perhaps cognate. If so, *zhi*₄ 至 should belong to set A.