Following the marrow: Two parallel Sino-Tibetan etymologies[1]

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1.0 Introduction

In his provocative paper "Chinese and Austronesian are genetically related" (1991), the French linguist Laurent Sagart claims that no regular correspondences have been established between Chinese and Tibeto-Burman (TB), whereas unlimited numbers of cognates, showing "regular" correspondences, can be established between Austronesian (AN) and Chinese, as long as one chops off the initial syllable of the AN root.

There is nothing wrong with this syllable-lopping *per se*. Benedict's "Austro-Tai" megalo-grouping, whereby Tai and Hmong-Mien are related to AN, rests on similar hypotheses: the dissyllabic PAT etyma suffered loss of their initial syllables in Tai-Kadai (with its "tai-ambic" stress pattern: the two best examples being EYE and DIE) and loss of their final syllables in Hmong-Mien (with its "myochaic" [i.e. Miao-Yao trochaic] stress).[2]

One can certainly not exclude a very early contact relationship between AN and Chinese, especially since the AN homeland is now thought to have been somewhere in coastal SE China, perhaps Fukien, opposite the island of Taiwan.

However, there are many grave objections to Sagart's reconstructive approach:

a. Sagart's criteria for phonological correspondence are lax, so that it is easy to find lookalikes in the huge AN and Chinese lexica.
b. His criteria for semantic correspondence are also extremely tolerant.
c. Sagart's search for cognates is proceeding by Chinese rhyme group, with no notion of starting with core vocabulary.
d. Sagart vastly underestimates the number of reliable Chinese/TB cognates already discovered. Many of

these are not at all obvious, and can be established only on the basis of subtle comparative work.

While the sound correspondences between Chinese and TB do not always appear exquisitely regular, there are reasons:

(a) Reconstruction systems for OC are in flux, with many competing theories. How to establish regular correspondences when it is not clear what you are supposed to be corresponding to?

(b) We are not dealing with monolithic invariant etyma, but with word-families, as in IE.[3] Loans and backloans between Chinese and TB are also a factor.

(c) The period of presumed Chinese/TB unity was a long time ago, perhaps 6000 years B.P.

And in fact it IS possible to find phonologically parallel cognates between PTB and Old Chinese. In this paper I offer two such, for both of which I claim responsibility. One of them appeared in print as early as Matisoff 1978 (MARROW); the other (FOLLOW) was mentioned in passing in Matisoff 1985 (set #45), but is given here in greatly elaborated form.

Both of these etyma involve the same graphological phonetic series in Chinese, #11 in Karlgren's *Grammata Serica Recensa* [GSR]. In general, all characters in the same series are assumed to have identical or very similar rhymes,[4] regardless of the details of the system of OC reconstruction one espouses.

The two Chinese lexemes in question appear consecutively in GSR #11:

11g  OC ***dzwia** MC **zwię̯**
Mandarin **suí**
'follow' (*Shu Jing*); 'conform to' (*Shi Jing*); 'foot' (*Yi Jing*)

11h  OC ***swia** MC **swię̯**
Mandarin **suǐ**
'marrow'

All etyma in this labialized (so-called *hé-kǒu*) series are reconstructed with one of two OC rhymes ***-wâ** or ***-wia**, presumably felt to be close enough to be written with the same

phonetic. Subsequent development of the two was different: ***-wâ*** > MC ***-uâ*** > Mand. ***-(u̯)o***, while ****-wia*** > MC ***-iẹ̯*** > Mand. ***-ui*** [wei].

So these two etyma are as closely matched in rhyme as can be — both reconstructed with the same sub-rhyme of the same phonetic series.

2.0 FOLLOW

2.1 FOLLOW in Kamarupan (TB of Northeast India)

"STC" (Benedict 1972:51) sets up in passing a root ****ywi*** 'follow', as one of two examples of PTB initial ****yw-*** (along with ****ywar*** 'sell'), but claims that this root is restricted to "Kuki-Naga", offering only two supporting forms (Lushai **zui**, Siyin **yui**), both from the Chin group. The rhyme ****-wi*** is of non-canonical shape for the STC's system of PTB [see below 4.0], so that we must assume the intention was to set it up only for "Proto-Kuki-Naga" (= Proto-Kuki-Chin-Naga).

Indeed, whether or not we take PKN and PKCN to merely be synonyms, the Naga branch of Kamarupan has many likely additional reflexes of this etymon, gleanable from Marrison 1967, Appendix I(a), p. 100.[5] We may distinguish three groups of forms:

(a) those with a labial spirant or semivowel initial
/similar to the STC's reconstruction ****ywi***/

Konyak	**woi**-lak
Sangtam	i-**vü**
Sema	athiu-**wu**
Mao	**fü**

*(b) those reflecting a nasal prefix: ***m-ywi** (better, ***m-yuy**)*
/with secondary frication of the y to z or dz/

Chokri	**mü-zwi**
Angami (Khonoma dial.)	a-sa-**me-dzi**
Angami (Kohima dial.)	sie-**me-dzi**-lie

/These forms from the Angami group show what looks like a nasal prefix; the Chokri vowel symbolized as "ü" is very likely an unstressed shwa-like thing; Angami characteristically gives its unstressed prefixes a slight **e**-color vocalization, e.g., the causative prefix **pe-**./

The impressionistically transcribed monosyllabic Phom form **mü** is difficult to interpret; it looks the same as the first syllable of the Chokri form, where we interpreted it as a prefix; perhaps it is to be analyzed as the reflex of the entire prototype ***m-ywi**. (In TB, **m-** frequently tends to swallow up a following **-u**, e.g., the Lahu phonemic syllable /mu/ is really a syllabic labiodental nasal affricate (Matisoff 1973:3-4).

The Ntenyi form **sinyiwa** is to be analyzed either as **sin-yi-wa** or **si-nyi-wa**. In either case the second syllable seems derivable from ***m-yuy**.

The **m-** might well be the PTB stativizing verb-prefix (see Wolfenden 1929).

*(c) those with a sibilant spirant initial: ***s-ywi** (or better, ***s-yuy**)*

Mzieme **sui**

Liangmai shai-**shwi**
Zeme chai-**sui**
/morphemically identical binomes/

Tangkhul athi**shur**
/the final -r is unexplained; is it phonetically only a rhotic coloration to the vowel?/

It seems reasonable to interpret these forms as reflecting the transitivizing/directionalizing/causative prefix ***s-**. So we actually have a stative/causative pair:

***m-yuy ≍ *s-yuy**
'to be following, come after' ≍ 'to follow smn/sthg'[6]

2.2 FOLLOW in Chinese

The STC, believing the *follow* root to be confined to Kuki-Naga, certainly did not suggest comparing it with any Chinese form. But such a comparison leaps to mind, especially with the **s**-prefixed TB allofam, ***s-yuy**.

The Chinese lexeme in question is represented primarily by the character 隨, now usually abbreviated 随:

> OC ***dzwia**/MC **zwię** [GSR 11g] 'follow' (*Shu Jing*); 'conform to' (*Shi Jing*); 'foot' (*Yi Jing*) > Mandarin **suí**

Another Chinese character represents what seems certainly to be a word-family variant ("allofam") of the same etymon:

> 遂 OC ***dzi̯wed**/MC **zwi** [GSR 526d] '...accompany, follow; then, thereupon;...channel' > Mand. **suì** 'satisfy, fulfil; then, thereupon' (as in **suì-yì** 'to one's liking', **suì-xīn** 'after one's heart'; cf. Thai **taam-caj** 'do as one pleases' ("follow-heart").

2.21 Japanese *shitagatte*

The Japanese conjunction **shitagatte** 'consequently; therefore; accordingly' (literally, "having followed; having obeyed") is usually written with

從 or 従 (Mand. **cóng**)

for the root **sitagaw-**, then with kana for the inflectional ending. Occasionally, however, the roughly synonymous character

隨 **suí**

is used instead.[7] This is of interest in connection with the grammaticalized Burmese forms to be cited in the next section, which I claim to be cognate with this latter Chinese morpheme.

2.3 FOLLOW in Lolo-Burmese

The ordinary words for 'follow' in the principal Lolo-Burmese languages, e.g., WB **luik** and Lahu ǧà?, have nothing to do with the present discussion.

2.31 Written Burmese

WB has two grammaticalized morphemes **sui'** [creaky tone]. One is a pre-verbal (adverbial) or post-clausal (conjunctional) morpheme meaning 'thus'. The other is a post-nominal particle meaning 'toward'. I maintain that they are both reflexes of our PST root 'follow; go in a certain direction'.

Judson (1893/1966: 1043):

sui' (1) *pronominal adjective*. **such**. *Derivatives*:

ʔi-sui' [Judson:149] 'like this' [cf. Lahu **chi qhe**]

sañ-sui' 'such; of this sort' [J:990]

thui-sui' 'such; of that sort' [J:533]

yâŋ-sui' 'id.' [J:813]

ʔəbai-sui' 'of what sort?' [J:79]

ʔəkraŋ-sui' 'of whatever kind' [J:9]

kai'-sui' 'as; like as' [J:197]

There follow three *"verbals"* (what we would call VP's), "equivalent to the conjunction **therefore**":

sui' tâñ phrac sâw krong'
/Mod. Bs.[8] thou' ti: hpyiʔ dho: jaun'/

sui' phrac rwe'
/thou' hpyiʔ ywei'/

sui' mui' krong'
/thou' mou' jaun'/

/cf. Lahu **qhe te lɛ**, **qhe te qo**, **qhe qo**, etc./

Also: **sui' ma-hut** /thou' mahouʔ/ 'or, otherwise'
(literally "if not thus"; cf. Lahu **qhe mâ hêʔ qo**)

Judson also gives two more "verbals, equivalent to the conjunctions *yet, nevertheless, but* ":

sui' ra twaŋ /thou' ya twin/; **sui' saw lâñ** /thou' tho li:/.

From these expressions we see that the best gloss of the simple morpheme **sui'** (Mod. Bs. **thou' ~ dhou'**)[9] would be 'thus, in this way', as in C/M:168. (This Burmese functor is quite similar in its semantic range to Lahu **qhe**, which also appears in a variety of conjunctional and postpositional collocations.)

Judson (p.1043) then gives a second, homophonous, grammatical morpheme:

sui' 2. *noun affix* **towards, into, unto; according to; at**

This looks very much like a grammaticalization of a verb meaning something like 'follow'. Judson gives no examples of usage.

But C/M:168, also listing it as a separate morpheme from 'thus', calls it a "np", presumably "nominal postposition" or "noun-particle", glossed 'motion or direction toward'. Also no examples.

Unfortunately, the S- fascicle of Bernot's *Dictionnaire Birman-Français* has not yet appeared. This morpheme is not included among the functors discussed in Okell 1969 (Vol. II), or in Cornyn and Roop's grammar (1968).

Harada and Ono, *Biruma-go Jiten* (1979:506):

Here two lemmata are also given, this time with the directional particle first. Both are specifically labelled as "literary" (in contrast to the very common accusative/directional particle **kou**). That is undoubtedly the reason why many of the above works do not mention it.

sui' [thou'][dhou'] (Particle) (Literary)
"e (undoo ya hookoo wo shimesu"
(toward: indicates motion or direction)
Exs: **ʔahkan: hsi dhou' la dhi**
"heya no hoo e to yattekita"
([Smn] came around to the room)
kyan: po dhou' pyiʔ ca' laiʔ ʔi.
"toko no ue e nageoroshita"
(He threw it down onto the bed)

This dictionary also has another lemma **sui'**, glossed 'sir; mister' (*sama, tono*), noting it is used in addresses (*atena ni*

mochiiru). This is obviously the same morpheme. The letter is directed TO the addressee.

Then comes a long list of collocations with the "other" **sui'**, meaning THUS (*no yoo ni*), including **dhou' hpyi? ywe'** (conj.)[lit.], which is glossed as 'therefore; consequently' (*dakara, shitagatte, sore yue ni*).

And there's our *shitagatte* (above 2.21)!

Minina/U Kyo Zo, (1976:556) (also given as separate lemma from THUS):

sui' *"imennoj pokazatel', ukazyvajushchij na napravlenie dejstvija"* (noun particle indicating the direction of the action), e.g., **?im sui'** /**?ein dhou'**/ *domoj* 'homeward' (**?ein kou** is also possible, with the accusative particle **kou**).

Novikov/Kolobkov (*Russko-Birmanskij Slovar'*) 1966:64-5:

Mosəkou-myou' thou' *v Moskvu* 'to Moscow'

taun kun:-mya: be? thou' *v storonu gor* 'towards the mountains'

cunto hsi dhou' *v moju storonu* 'towards me'

2.32 Lahu

[2 successive entries in Dictionary of Lahu, (Matisoff 1988: 1222-1225)]

A. "**šɔ̄** (V) calculate; reckon; figure (sthg) out; consider; ponder; take into consideration; make an estimate
/ult. prob. same etymon as šɔ̄ (V) 'arrange; plan for the disposition of' [q.v.]/ "

Among the collocations listed under this lemma are:

šɔ̄ qay ve think one's way through sthg
/with **qay** 'go'/
i.e. follow along a path of reasoning

šɔ̄ -câ? ve 'figure out (as an auspicious day); calculate the occult connections between events'
/with **câ?** 'be joined to; have connection with'/

B. "šɔ̄ (V) arrange; put into proper order; channel in a desired direction; plan for the disposition of (objects or people)

/ult. prob.same etymon as šɔ̄ (V) 'calculate' [q.v.]/ "

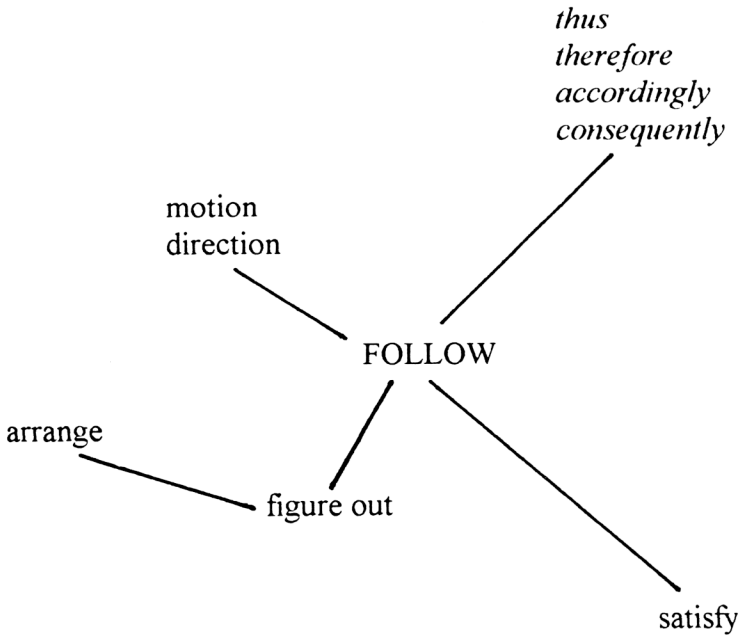
Cf. e.g., Jg. šərái, which has a semantic range covering both 'to consider; deliberate' and 'get ready; make preparations' [cf. Matisoff 1985 (GSTC):60].[10]

Among the collocations listed under this lemma are:

í-kâʔ šɔ̄ (qay) ve	canalize water; cause water to flow in a certain path
ɔ̀-lî-ɔ̀-qhâ šɔ̄ ve	follow a custom
chɔ šɔ̄ ve	select people (for certain tasks); assign jobs to people
vâ šɔ̄ ve	make a bamboo conduit for water ("arrange bamboo")
šɔ̄ cɪ ve	exact traditional service
ca-lí šɔ̄ cɪ ve	the blacksmith exacts assistance (in return for his products)

This Lahu form reflects ***s-yuy**, the causative variant, since the unprefixed allofam ***yuy** or the nasal-prefixed one ***m-yuy** would have yielded **yɔ** or **mɔ**, respectively. (We assume that the weak root-initial **y** was preemptible by any prefix.) This is confirmed by the semantics of most of the collocations in which šɔ̄ appears (e.g. 'canalize water'; 'organize people into work-groups'; perhaps 'propitiate the spirits'). Even the seemingly intransitive expressions of mental activity ('ponder') can be interpreted in the sense of 'marshalling one's thoughts'.

2.4 Metastatic flowchart for FOLLOW



3.0 The MARROW/BLOOD etymon *s-hywəy-t in Sino-Tibetan

3.1 Associations of MARROW with BLOOD and FAT

In *Variational Semantics in Tibeto-Burman* (Matisoff 1978; henceforth VSTB), there is a detailed discussion of the semantic interconnections of *marrow* with other bodyparts such as *brain*, *blood*, and *fat* (pp.182-4; 202-3).[11]

For MARROW < > FAT, cf. such compounds as WB **khraŋ-chi** 'marrow' (**chi** 'fat' < PTB ***tsil**), and WT **rkaŋ-mar** 'marrow' (**mar** 'butter; oil').[12]

As for MARROW and BLOOD, I proposed in VSTB that the Chinese words for these concepts are morphophonemic variants of the same etymon, PST ***s-hywəy-t**:

'marrow': 髓 [GSR 11h] OC ***swia**/MC **swiɐ̯**
Mandarin **suǐ**

'blood':  [GSR 410a-c] OC/MC **xiwet**
Mandarin **xǔe**

The key TB forms bearing on this analysis are from Jingpho. The Jg. word for blood is **sài**, which cannot be derived directly from PTB ***s-hywəy** 'blood', since ***wəy** > Jg. **ui** [sometimes transcribed "wi"]. I therefore suggested that the closest Jg. realization of this etymon is the splendid form **lǎsǎwi** 'marrow' (Hanson:380), transcribed as **lă^{33}sui^{33}** in the *Jingpho-Chinese Dictionary* (Dai Qingxia, *et al* 1983:418), and closely resemblant to the Chinese form. The prefixal **lə-** is obviously a reduction of ***lak** 'hand; limb', which occurs in dozens of Jg. words relating to the hands or feet (e.g. **lətá?** 'hand', **ləgō** 'foot', **ləkhàt** 'kick', **ləkhôn** 'bracelet', **ləgò?** 'have a crooked limb', etc.). The Jg. form **ləsūi** 'marrow' thus means 'limb-blood'.

Other putative cognates from the STEDT database include the following words for 'marrow':

Darang Deng (North Assam)	**ru^{53}*su*^{53}** (1st syll. 'bone')
Chang (N. Naga)	**hʌ̀i**
Kham (C. Nepal)	**su:**
Dulong (SW Yunnan)	**mɯ^{31}*sǐ?*^{13}**

Another example of Jingpho **-ui** corresponding to Karlgren's reconstruction of Old Chinese ***-wia** is 'elephant':

 ***gwia/ywiẹ̯** [GSR 27a-e] / Jg. **məgūi**
(PST ***m-guy**)

Finally, there is an interesting example of a parallel to the rhyme correspondence between WB and Jingpho in 'blood; marrow' (WB **swê** 'blood'/Jg. **ləsūi** 'marrow'). That is the word for 'sweat':

Jg. **ləsūi** 'sweat on the hands or feet'[14]
[Dai *et al* 1983:418; not in Hanson 1906:380]

WB **khrwê** /Lahu **kī** < PLB ***?krwəy^{2}**

The problem here is the hitherto unparalleled initial correspondence of Jg. **s-** to a complex velar cluster, PLB ***ʔkr-**. But this comparison is too good to throw out, pending further investigation.

3.21 Digression: other TB medullary etyma

Benedict (1972:39) only sets up one PTB root with the meaning 'marrow' ***r-kliŋ** (#126), yielding, e.g. Mikir **arkleŋ**, Lushai **thliŋ**. He also groups WB ***khraŋ*-chi** and Lahu **ɔ-cɔ-pɔ** under this etymon, though they point rather to final ***-aŋ**, i.e., PLB ***ʔkraŋ**[1] ≋ ***ʔkyaŋ**. (The WB and Lahu forms disagree in medial: WB < ***-r-**, Lh. < **-y-**.) I prefer to group these Lolo-Burmese forms with WT ***rkaŋ*-mar**[15], (from PTB ***r-kaŋ**), homophonous with WT ***rkaŋ*-pa** 'leg'. Marrow is "limb-fat", just as it is "limb-blood".[16]

Several other roots for 'marrow' may be reconstructed for PTB, including ***s-la**, ***g-tik/ŋ**, and ***tšuk** ≋ ***tšik**.

3.3 ENTICE/SEDUCE: *uy ≋ *wəy?

In 2.32 above, we discussed the Lahu verb šɔ̄ 'calculate; arrange; canalize' at length. There's also another Lahu morpheme šɔ̄ 'perform the major propitiatory rite' [Red Lahu], e.g. **qhɔ-nê šɔ̄ ve** 'propitiate the Hill Spirit' (listed as a separate entry in DL:1225) which might well belong to the same etymon: i.e. by propitiating a spirit, we are trying to make it follow a certain path of conduct, arranging its behavior according to our desires.

Still another morpheme šɔ̄, glossed 'speak', but possibly to be reanalyzed as 'speak enticingly', occurs in the archaic language of love poetry:

qha kâ šɔ̄ 'Speak that I may hear!'

mɔ̂-lɔ-šɔ̄-khɔ̂ 'lovers' conversation; sweet nothings; flirtatious amorous talk'

/**mɔ̂-lɔ** [poetic] 'mouth; lips', **khɔ̂** 'words'/

mɔ̂-lɔ-šɔ̄-khɔ̂ šɔ̄ ve 'engage in such talk'

So, if we consider the semantic center of gravity of this Lahu item to be 'entice' rather than 'arrange; cause to follow', it might be possible to identify this morpheme with two other forms from Jingpho and Burmese:

Jg. **sui** 'allure, entrap, decoy, catch by artifices' (Hanson:613)

WB **swê** 'draw along; persuade to accompany';
***swê*-choŋ** 'entice, influence, seduce' (Judson:1051).

Despite the excellence of the semantic fit, the sound-correspondence is off: Lahu **ø** could go with Jg. **ui** (< ***uy**), but ***uy** gives WB **ui**, not **we** (which comes from ***wəy**). Perhaps we should assume ***uy** ≈ ***wəy** variation in this etymon. (Note that either prototype would yield the Jg. form. See the Chart in Section 4, below.)

4.0 The new PTB rhyme *-uy in the context of the TB system of diphthongs

PST and PTB syllables that do not end in consonants are characterized by chiefly diphthongal rhymes. Far and away the best attested monophthong in open-syllables is ***-a**. Although ***-i** and **-u** (especially ***-u**) are reconstructible, in many languages (e.g., WB and Lahu) they merge with ***ey** and ***-ow**, respectively. The evidence for monophthongal ***-e** and ***-o** is very weak.

Our reconstruction of ***-uy** provides a counterpart to the relatively well-attested but previously systematically isolated rhyme ***-oy** (see charts, below). It also allows us to get rid of the ***-wi*** final which Benedict (1972) sneaks in here and there, as in 'follow' (p.51), where it is mistakenly restricted to Kuki-Naga [see above]; or in cases where the lack of a Burmese cognate makes it impossible to decide between a "monophthong" or a "diphthong", e.g.'sweet' PTB ***twi** or ***twəy** [#166], 'laugh' PTB ***m-nwi** or ***m-nwəy** [#191], or 'elephant' PTB ***m-gwi** or ***m-gwəy** [pp. 167, 184].

As might be expected, our rhyme ***-uy** merged in one or another language with the similar finals ***-wəy** and ***-əw**. In

Jingpho, PTB ***wəy** and ***uy** merged to **-ui**[17]; but these rhymes had a different fate from ***əw**, which became Jg. **-u** (e.g. 'stale' Jg. **tsù**/WB **sûi**; see Matisoff 1974:182). In Proto-Lolo-Burmese, on the other hand, PTB ***əw** and ***-uy** merged to ***əw**.[18] In the absence of extra-LB data, we can't tell which PTB rhyme is represented by sets like the following:

WB **sui** 'penis of animal' (< PLB ***səw**[1]), ʔ**əsûi** 'virility; testicles; uncastrated animal' (< PLB ***səw**[2])/Lh. **šɔ̃** 'intact male animal', as in **nû-šɔ̃** 'bull', **í-mû-šɔ̃** 'stallion' (< PLB ***səw**[219] < PLB ***səw**[1/2] 'testicles; virility' (Matisoff 1988:1225).

Note that these forms are virtually identical to the Burmese and Lahu words cited in the discussion of *follow*, above 2.3.

The following charts display the system of PTB diphthongal finals, and their reflexes in some key TB languages:

PTB diphthongs

	-y		*-w*	
		uy		
ey	**əy**	**oy**	**əw**	**ow**
	wəy			
	ay		**aw**	
	a:y		**a:w**	
	way			
	wa:y			

PTB	WTb	Jg	PLB	WBs	Lahu
***-ey**[20]	**e**	**i**	***i**	**i**	**i**
***-əy**[21]	**i**	**i**	***əy**	**e**	**ɨ/ɔ**[22]
***-oy**[23]	**?**	**oi/we**	***wəy**	**we**	**?**
***-wəy**	**yi**	**ui**	***wəy**	**we**	**ɨ**[24] **/i**[25] **/u**[26]
***-uy**	**?**	**ui**	***əw**	**ui**	**ɔ**[27]
***-əw**	**u**	**u**	***əw**[28]	**ui**	**ɔ/u**[29]
***-ow**[30]	**o**	**u**	***u**	**u**	**u**

5.0 Concluding remarks

As indicated above, L. Sagart has recently claimed that Sino-Tibetanists have yet to establish "regular correspondences" between Chinese and TB, and maintains that the correspondences between Chinese and Austronesian are much more "regular". This paper may be viewed as a test case: FOLLOW and MARROW both have good, though non-obvious parallel etymologies in ST. Although the TB evidence points to slightly different finals for *follow* (***uy**) and *blood/marrow* (***wəy**), the graphs for their Chinese cognates belong to the same phonetic series. Finding two such similar PTB etyma is not exactly chopped liver — or even chopped marrow. By way of contrast, consider Sagart's own etymology for the Chinese word for 'marrow': he compares OC ***swia** (re-reconstructed as ***s-j-wa**? on no apparent grounds other than a belief that OC medial glides were in general morphemically segmentable) to Proto-Austronesian ***pusuq** 'heart; central leaf' (since *marrow* is "the heart of a bone"). No independent evidence that *marrow* has ever been conceived in a "heartlike" way by East Asian peoples is offered, nor is the phonological correspondence between the PAN and OC forms terribly convincing.

In fact, many of Sagart's Indonesian/Chinese "cognates" are about as persuasive as comparisons one might make between Chinese and English. After all, the English words *follow* and *marrow* seem to have a common morphemic element for their second syllables (*-llow* ≋ *-rrow*), so that they correspond "regularly" to the two Chinese etyma in GSR #11!

Notes

[1] This paper was originally presented at the Fourth Spring Workshop on Theory and Method in Linguistic Reconstruction, University of Pittsburgh (March 27-29, 1992), and will also be published in revised form in LTBA 15.1. I intend this as the

beginning of a larger study of the "regularity" of Chinese/Tibeto-Burman sound correspondences.

[2] See Benedict 1975; Solnit 1992.

[3] As a random example, consider all the variants that must be posited for a simple IE etymon like ***wed-** 'water; wet'< Watkins 1985: 73

1. ***wod-ōr** [suffixed o-grade]
   > PGmc ***watar** > OE **wætar** > *water*
2. ***wēd-o-** [suffixed lengthened grade]
   > PGmc ***wēd-** > OE **wæt**, **wēt** > *wet*
3. ***wod-** [o-grade]
   > PGmc ***wat-skan** > OE **wæscan**, **wacsan** > *wash*
4. ***we-n-d-** [nasalized form]
   > PGmc ***wintruz** 'wet season' > OE **winter** > *winter*
5. ***ud-ōr** [suffixed zero-grade]
   > Greek **hudōr** 'water' > *HYDRO-* (incl *clepsydra, dropsy*)
6. ***u-n-d-ā** [suffixed nasalized zero-grade]
   > Latin **unda** 'wave' > *undulate, inundate, abound, redundant, surround*
7. ***ud-ro-**, ***ud-rā** [suffixed zero-grade]
   'water animal', in PGmc ***otraz** > OE **otor** > *otter*
8. ***ud-skio** [suffixed zero-grade]
   Scot. and Ir. Gaelic **uisge** 'water' > *uisquebaugh, whiskey*
9. ***wod-ā-** [suffixed o-grade]
   Russ. **voda** 'water', with **-ka** 'diminutive' > *vodka*

[4] Often the same etymon is graphically repartitioned into more than one homophonously read character: cf. PROPERTY / LUMBER / TALENT, etc. (Matisoff 1988).

[5] Marrison is the first to admit the low quality of the phonetic transcription of the forms from these languages; yet they are often good enough to make cognate relationships fairly obvious. In some compounds it is not clear where the syllable

boundary should be, and I am making educated guesses. Syllables deemed to be cognate are in boldface.

[6] Cf. e.g. such Written Tibetan (WT) pairs as **mnam** 'have an odor'/**snam** 'sniff sthg'.

[7] These two characters cooccur in the compound 隨從 (Mand. **suícóng**, Jse. **zuijū**) 'accompany; attend (a superior); play second fiddle to'. The Mandarin adverb **suíhòu** means either 'soon afterwards' in the temporal sense, or 'consequently' in the logical sense.

[8] We use a variant of Cornyn's conveniently typable transcription of Modern Burmese, where clear tone (< PLB Tone *1) is left unmarked, breathy tone (< PLB Tone *2) is indicated by a colon, and creaky tone by an apostrophe (for which Cornyn uses a dot). See Cornyn and Musgrave 1958, cited below as "C/M 1958". I am using -ʔ to indicate checked syllables (< PLB *-p -t -k), where Cornyn uses an apostrophe. Note that aspirates (except for "ch") are written h-first in this system (e.g. hp, ht, hs, hm), whereas th and dh represent the interdental fricatives [θ] and [ð].

[9] The interdental spirant /θ/ "th" is voiced subphonemically to "dh" [ð] in Modern Burmese in close juncture after syllables in non-checked tones.

[10] This is *not* a claim that **šɔ̄** is etymologically related to this Jg. form, which, as demonstrated in GSTC, derives from a causative variant of the copula, ***s-ray**. The usual Lahu reflex of PTB ***-ay** is **-e**, except after ***r-** when it is **ɪ**. Thus PST ***s-ray** would either yield Lahu **ǧɪ** (if the prefix were lost or absent in pre-Lahu) or Lahu **še** (if we assume preemption of the root-initial **r** by the **s**-prefix).

[11] The marrow in some bones is yellow and largely composed of fatty tissue, while the marrow in other bones is red and bloody-looking. See Gray's *Anatomy*, pp. 1096-7.

[12] The first syllables of these compounds are from PTB ***r-kaŋ** (see below).

[13] It seems unlikely that this form is a loan from Nepali (Indo-Aryan) **māsi** (cf. perhaps Skt. **mastiṣka** 'meninges'), since the Dulongs live in SW Yunnan, far from Nepal.

[14] The element **lə-** is a "prefixization" of ***lak** 'limb', as discussed above. The ordinary Jg. word for 'sweat in general' is **səlàt**.

[15] We have noted above that the second syllables of both the Burmese and Tibetan forms mean 'fat; oil'.

[16] To further complicate matters, I believe there is also a Mon-Khmer root for 'marrow' of the shape ***kruaŋ** (p.c., G. Diffloth?).

[17] Jingpho forms unambiguously reflecting PTB ***wəy** include 'dog' (Jg. **gùi**/WB **khwê**) and 'suppurate' (Jg. **tūi** 'fester', **mətsəwi** 'pus'/WB **twe**). The Jg. form "**məthwi**" 'spit' cited and compared to WB **thwê** in Benedict 1972 (#168) is not to be found in Hanson or Dai, which give the form **məthó**.

[18] In Written Burmese itself, the two PTB rhymes merged in favor of a final, usually transcribed "ui", that is written with a combination of the symbols for **u** and **i**.

[19] There is no difference between the reconstructed rhymes "***-uw**" and "***-əw**", either at the PLB or PTB level, and TB'ists have been using them virtually interchangeably. (A similar situation exists with the reconstructions "***-iy**" and "***-əy**".) This is because Benedict changed to the reconstructions with shwa when the *Conspectus* was revised for publication in 1972. The original MS was left as it was, but forms with the revised reconstructions appeared in the notes. Certain reviewers (especially Miller 1974) took Benedict severely to task for this, but I leaped to his defense by maintaining that the changes were mere "notational variants" (Matisoff 1975). Now, however, I agree that the reconstructions with shwa are preferable, since inter alia, they furnish a better fit with Chinese.

[20] Examples include: FRUIT; PENIS. ***ey** has merged with ***i** in Lolo-Burmese (but ***i** > WT **i**).

[21] The numerous examples include COPPER; PARROT; WATER.

[22] This rhyme ***əy** becomes Lahu **-ɔ** after aspirated or glottalized laterals, in an interesting series of words discussed many times (see Matisoff 1969), including BOAT; BOW/SLING; FOUR; GRANDCHILD; HEAVY; WIND.

[23] This rhyme is discussed in Benedict 1972:66-68, as summarized in Matisoff 1985:35.

[24] The usual Lahu reflex of ***-wəy** is **-ɪ**, with numerous examples: 'blood' WB **swê**/Lh. **s̃ī**; 'comb' PKaren ***khwis**/Lh. **pī** [see Benedict/Matisoff 1979:13); 'daughter-in-law' WB **khrwê-ma'**/Lh. **ɔ-khî-ma**; 'dog' WB **khwê**/Lh. **phî**; 'far' WB **wê**/Lh. **vî**; 'snake' WB **mrwe**/Lh. **vì** < PLB ***m-r-wəy**[1] < PTB ***s-brul** ≋ ***s-mrul**; 'sweat' WB **khrwê**/Lh. **kī**.

[25] Lahu has **-i** instead of **-ɪ** in at least three etyma, under conditions that are not yet understood: 'bamboo rat" WB **pwê** (< ***b-**)/Lh. **fâʔ-phî** (< ***p-**) [the WB and Lh. forms also disagree in voicing]; 'gold' WB **hrwe**/Lh. **ši**; 'rub; polish; whet' WB **swê**/Lh. **s̃ī**.

[26] Lahu has **-u** in one set that descends from PTB ***-ul** (like 'snake'): 'hair' WB **mwê**/Lh. **mu** < PLB ***mwəy** (the WB and Lh. forms also disagree in tone: WB < *2, Lh. < *3) < PTB ***s/g-mul** ≋ **-mil**.

[27] Until we can reconstruct an etymon in ***-uy** with labial initial that has a Lahu reflex, we won't know whether Lahu reflects this with **-u** (see next note).

[28] Since PTB ***əw** and ***uy** cannot be distinguished at the PLB level, discovery of cognates from other branches of TB may well force us to assign some PLB etyma now reconstructed with ***əw** to PTB ***uy**.

[29] Lahu reflects this rhyme as **-u** after labial initials, e.g. BUG (WB **pûi**/Lh. **pû**); CARRY ON BACK (WB **pûi**/Lh. **pû**); GRANDFATHER (WB **ʔəphûi**/Lh. ɔ̀-pū); HIGH (WB **mui** ≋ **mui'** 'elevated; raised in the center'/Lh. **mu** 'high' (the conventional wisdom identifies the Lahu form with PLB **mraŋ'** 'high', though the rhyme correspondence is off; a parallel is

provided by 'horse' WB **mrâŋ**/Lh. **|i-mû**, but against this is 'see' WB **mraŋ**/Lh. **mɔ̀**); MUSHROOM (WB **hmui**/Lh. **mù**); PRICE (WB **ʔəphûi**/Lh. **phû**); SKY (WB **mûi(gh)**/Lh. **mû**).

After other initials, the regular Lahu reflex of ***-əw** is **-ɔ**. Examples are numerous, including: AWAKE(N); BLUE/GREEN (WB **ñui**/Lh. **nɔ**); BONE; CHIEF/RULE (WB **cûi**/Lh. ***jɔ̂-mɔ̂***); FINGER; HORN; NINE; VIRILITY/PENIS (WB **sui** ≋ **sûi**/ Lh. **šɔ̃** see above 2.3); SEED (WB **myûi**/Lh. **yɔ̂** < PLB ***m-yəw**[2]); SHEEP (WB **sûi**/Lh. **yɔ̀** < PLB ***zəw**; but WB and Lahu disagree in tone: WB < *2, Lh. < *1); SMOKE; STEAL; SWEET. An exceptional set is PIGEON/DOVE (WB **khrûi**, Lh. **gû** < ***m-krəw**[2]), where Lahu has **-u** after a non-labial initial.

[30] Examples include THORN; FAT. ***ow** has merged with ***u** in LB (but ***u** > WT **u**, e.g. BUD/OPEN OUT).

References

Benedict, Paul K. 1972. *Sino-Tibetan: A Conspectus* ("STC"). Contributing Editor, J. Matisoff. Cambridge: Cambridge University Press.

----------. 1975. *Austro-Thai Language and Culture*, with a Glossary of Roots. New Haven: HRAF Press.

----------. 1979. "Four forays into Karen linguistic history." Edited and expurgated by J. Matisoff. LTBA 5.1:1-35.

Cornyn, William S. and John K. Musgrave. 1958. *Burmese Glossary*. New York: American Council of Learned Societies.

---------- and D. Haigh Roop. 1968. *Beginning Burmese*. New Haven and London: Yale University Press.

Dai Qingxia, et al. 1983. *Jingpho-Chinese Dictionary*. [Jing-Han Cidian/Jinghpo-Miwa Ga Ginsi Chyum]. Kunming: Yunnan People's Publishing Co.

Gray, Henry. 1901/1974. *Anatomy, Descriptive and Surgical*. Reprinted 1974 by Running Press, Philadelphia.

Hanson, Ola. 1906/1954. *A Dictionary of the Kachin (Jingpho) Language*. Rangoon. Reprinted (1954) by Baptist Board of Publications, Rangoon.

Harada Masaharu and Ono Toru. 1979. *Biruma-go Jiten*. Osaka: Nihon Biruma Bunka Kyōkai.

Judson, Adoniram. 1893/1966. *Burmese-English Dictionary*. Rangoon. Reprinted (1966) by Baptist Board of Publications, Rangoon.

Karlgren, Bernhard. 1957. *Grammata Serica Recensa*. ("GSR") Bulletin of the Museum of Far Eastern Antiquities #22. Stockholm.

Marrison, Geoffrey E. 1967. *The Classification of the Naga Languages of North-East India*. D.Phil. dissertation, School of Oriental and African Studies (London). XXX pp. MS.

Matisoff, James A. 1969. "Lahu and Proto-Lolo-Burmese". Occasional Papers of the Wolfenden Society on Tibeto-Burman Linguistics, Vol. I:117-221. Ann Arbor.

----------. 1973. The Grammar of Lahu. UC Publications in Linguistics #75. Berkeley and Los Angeles: University of California Press. Reprinted 1982.

----------. 1974. "The tones of Jinghpaw and Lolo-Burmese: common origin vs. independent development." Acta Linguistica Hafniensia (Copenhagen) 15.2:153-212.

----------. 1975. "Benedict's Sino-Tibetan: a rejection of Miller's *Conspectus* inspection." LTBA 2.1:155-72.

----------. 1978. *Variational Semantics in Tibeto-Burman: The "organic" approach to linguistic comparison*. Philadelphia: ISHI Publications.

----------. 1985. "God and the Sino-Tibetan copula, with some good news concerning selected Tibeto-Burman rhymes." Journal of Asian and African Studies (Tokyo) 29:1-81.

----------. 1988. "Universal semantics and allofamic identification: Two Sino-Tibetan case-studies -- *straight / flat / full* and *property / livestock / talent*." In Akihira Sato, ed., *Languages and History in East Asia: Festschrift for*

Tatsuo Nishida on the Occasion of his 60th Birthday, pp. 3-14. Kyoto: Shokado.

----------. 1988. *The Dictionary of Lahu.* Berkeley and Los Angeles: University of California Press.

Miller, Roy Andrew. 1974. "Sino-Tibetan: Inspection of a conspectus." Journal of the American Oriental Society 94.2:195-209.

Minina, G.F. and U Kyo Zo. 1976. *Birmansko-Russkij Slovar'.* Moscow: Izdatel'stvo "Russkij Jazyk".

Novikov, N.N. and V.P. Kolobkov. 1966. *Russko-Birmanskij Slovar'.* Moscow: Izdatel'stvo "Sovetskaja Èntsiklopedija".

Okell, John. 1969. *A Reference Grammar of Colloquial Burmese.* 2 vols. London: Oxford University Press.

Sagart, Laurent. 1991. "Chinese and Austronesian are genetically related." Paper presented at 23th ICSTLL (Arlington, TX). 34 pp. MS, plus 4-pp. handout.

Solnit, David. 1992. "The case for reconstructing a polysyllabic Proto-Kadai from monosyllabic daughter languages." Paper presented at Fourth Spring Workshop on Theory and Method in Linguistic Reconstruction, Pittsburgh.

Watkins, Calvert, ed. 1985. *The American Heritage Dictionary of Indo-European Roots.* Revised Edition. Boston: Houghton Mifflin Co.

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