Trans-Himalayan *ɢ- and *sr-

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1. Trans-Himlayan *ɢ- versus *j-. Axel Schuessler (2015: 590) argues, in his review of Baxter & Sagart's *Old Chinese: a new reconstruction* (2014), that where Baxter & Sagart reconstruct *ɢ- the following examples suggest Old Chinese *j-.[1]

> Chi. 羊 *yang* < *ɢaŋ 'sheep' (03-39a), Tib. གཡང་དཀར་ *g.yaṅ-dkar*, Japhug Rgy. *qaʑo* < *(qa-)jaŋ, Zbu Rgy. *ʁ-iʊʔ*
>
> Chi. 祥 *zjang* < *sɢaŋ (03-39n) 'auspicious', Tib. གཡང་ *g.yaṅ*
>
> Chi. 癢 *yangX* < *ɢaŋʔ (03-39r) 'itch', Tib. གཡངས་ *g.yaḥ*, Japhug Rgy. *rɤʁʑa* < *(rɐ)ja

In a reply to Schuessler's review, Baxter & Sagart instead propose that Tib. *g.y-* is a regular reflex of *ɢ- and, by implication, that their proposal is superior by virtue of taking account of the velar initial in the relevant Tibetan words.[2]

1a. There is a counterexample, in which Tib. *g.y-* corresponds to a Chinese velar rather than a Chinese uvular.

> Chi. 軍 *kjun* < *[k]ʷər (34-13a) 'army', Tib. གཡུལ་ *g.yul* 'army, battle'

In another counterexample Tib. *g.y-* corresponds to Chi. *m-qʷ- or *ɢʷ- in Baxter & Sagart's reconstruction.

> Chi. 右 *hjuwH* < *m-qʷəʔ-s ~ *m-qʷəʔ, *hjuwX* < *[ɢ]ʷəʔ (04-17i) 'right hand', Tib. གཡས་ g.yas < *gyas 'right', Bur. ယာ *yā*

1b. The correspondence of Tib. *g.y-* to Chi. *ɢʷ- (or *m-qʷ- > *ɢʷ-) may not at first sight appear exceptional to Tib. *g.y-* : Chi. *ɢ-. But, if we read further in their reply, it turns out that in their defence of *ɢʷ- as the origin of Middle Chinese 云 *hj-*, as opposed to Schuessler's *w-, they propose Tib. *g-* (not *g.y-*) : Chi. *ɢʷ-.

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1 Jacques (2013: 295 note 6) two years earlier offered the same proposal as Schuessler. As a fourth example in favour of *j- Schuessler (2015: 590) also points to Chi. 洋 *yang* < *ɢaŋ (03-39h) 'vast', Tib. ཡངས་པོ་ *yaṅs-po*. Baxter & Sagart instead suggest that the Chinese cognate of Tib. ཡངས་པོ་ *yaṅs-po* is "a Chinese root beginning in a glottal stop, not a uvular: *ʔ(ˤ)aŋ 'broad, full, ample, swollen', which includes *àng* 盎卬 and *yāng* 泱" (2017: 573). They do not offer reconstructions for these words, but presumably intend 盎卬 *'aŋgH* < *ʔaŋ (03-20i) 'fill to overflow' and 泱 *'jaŋ* < *ʔˤaŋ (03-20g) 'great, expansive'.

2 Baxter & Sagart preface their statement of this correspondence with the caveat "[r]egardless of what *g.y-* may have stood for phonetically" (2017: 571), implying unawareness of the relevant literature. See Hill 2012.

Chi. 于 *hju* < *ɢʷ(r)a (01-23a) 'go', Tib. འགྲོ་ *ḥgro* < *ɦgʷra (Laufer's law) < *ɦɢʷra

Chi. 芋 *hjuH* < *[ɢ]ʷ(r)as (01-23o) 'taro', Tib. གྲོ་མ་ *gro-ma* < *gʷra (Laufer's law) < *ɢʷra 'potentilla anserina', WBur. ဝ *wa* < *Qʷa 'elephant foot yam'

Chi. 亘 *hwan* < *[ɢ]ʷˁar (25-12a) 'turn around', Tib. སྒོར་མོ་ *sgor-mo* < *sgʷar (Laufer's law) < *sɢʷar 'round', WBur. ဝန်း *wanḥ* < *Qʷanḥ

Additional cognates also support this same correspondence.

Chi. 樺 *hwaeH* < *[ɢ]ʷˁras (01-27-) 'birch', Tib. སྒྲ་ *gro-ga* < *gʷra (Laufer's law) < *ɢʷra 'birch bark'

Chi. 友 *hjuwX* < *[ɢ]ʷəʔ (04-17e) 'friend', Tib. སྒྲོགས་ *grogs* < *gʷrags (Laufer's law) < *ɢʷrags 'friend'

Chi. 胃 *hjwɨjH* < *[ɢ]ʷə[t]s (31-05a) 'stomach', Tib. སྐྲོད་ *grod* < *gʷrad (Laufer's law) < *ɢʷrad

Chi. 違 *hjwɨj* < *[ɢ]ʷə[j] (28-05d) 'go against', Tib. འགྲོལ་ *ḥgol* < *gʷral (Laufer's law) < *ɢʷral 'part, deviate'

Chi. 羽 *hjuX* < *[ɢ]ʷ(r)aʔ (01-24a) 'feather', Tib. སྒྲོ་ *sgro* < *sgʷra (Laufer's law) < *sɢʷra

1c. Baxter and Sagart offer their own two counterexamples to Tib. *g.y-* : Chi. *ɢ-, in which Tibetan instead has *g-*. They offer no reason for the divergent Tibetan outcomes *g-* and *g.y-*.

Chi. 胤 *yinH* < *[ɢ]ə[n]-s (GSR???) 'small of the back', Tib. སྐལ་པ་ *sgal-pa*

Chi. 羨 *zjaenH*< *s.ɢar (03-39-) 'to pass, go beyond', Tib. རྒལ་ *rgal* 'to step, pass or climb over'

I am able to offer a further cognate in support of the same correspondence.

Chi. 洽 *heap* < *[ɢ]ˁr[o]p (37-01m) 'accord with', Tib. འགྲུབ་ *ḥgrub* < *ɦɢrup 'accomplish, achieve'

1d. Overall, the evidence points against Schuessler's *w-, but the evidence against his *j- is weaker; the outcomes Tib. *g-* versus *g.y-* are not predicted by Baxter & Sagart's Old Chinese.

2. Development of Trans-Himlayan *sr-.

We reconstruct *sān* 三 "three" as *s.rum based in part on phonetic *róng* 彡 *N.rum in the old alternative graph *cān* 參. Schuessler sees no trace of a rhotic in TB "three" and concludes that we must be wrong about OC. What needs to be explained is the absence of *r in TB. Handel (2002: 13) proposed that PST *sr- evolved to PTB *s- preceding nonfront vowels, for instance in *shā* 沙 *sˁraj "sand": WT *sa* "earth"; compare the front-vowel word *shī* 蝨 *srik "louse": Lushai [Mizo] *hrik*, Japhug rGyalrong *zruɣ* (Jacques 2015). "Three" is an additional example of the TB *sr- > s- change. (Baxter

& Sagart 2017: 574)

Handel offers an explanation for the correspondence of *sr- in Chinese to Tib. *s-* (or *ś-*) seen in the following examples, namely that Chinese maintains inherited *sr-, which Tibetan (and all languages of the family except Chinese) simplify to *s-* before vowels other than inherited *-e- and *-i- (2009: 201-209).[3]

Chi. 蝨 *srit* < *sri[k] (29-35a) 'louse', Tib. ཤིག་ *śig*

Chi. 殺 *sreat* < *srat (21-29d) 'kill', Tib. √sad (pres. གསོད་ *gsod*), Bur. သတ် *sat* < *ʔsat, Lashi *ʔsa:tH*

Chi. 三 *sam* < *srum (38-30a) 'three', Tib. གསུམ་ *gsum*, Bur. သုံး *suṃḥ* < *suṃḥ, Lashi *sɔmH*

Chi. 沙 *srae* < *sˁraj (18-15a) ‘sand’, Tib. ས་ *sa* 'earth', Bur. သဲ *sai* 'sand'

Chi. 殺 *sreat* < *srat (21-29d) ‘kill’, Tib. √sad (pres. གསོད་ *gsod*), Bur. သတ် *sat* < *ʔsat, Lashi *ʔsa:tH*

Chi. 沙 *srae* < *sˁraj (18-15a) ‘sand’, Tib. ས་ *sa* 'earth', Bur. သဲ *sai* 'sand'

Chi. 蝨 *srit* < *sri[k] (29-35a) 'louse', Tib. ཤིག་ *śig*

Chi. 甥 *sraeng* < *s.reŋ (09-25g) ‘son-in-law’, Tib. སྲིན་མོ་ *sriṅ-mo* 'sister of a man'

Chi. 產 *sreanX* < *s-ŋrarʔ (34-46a) ‘produce’, Tib. སྐྱེལ་ *srel* 'rear, bring up'

Chi. 欶 *sraewk* < *sˁrok (11-21o) 'suck, inhale, WBur. သောက် *sok* < *śuk 'drink', Lashi *śu:kH*

To these one can further offer the following comparisons:

Chi. 三 *sam* < *srum (38-30a) 'three', Tib. གསུམ་ *gsum*, Bur. သုံး *suṃḥ* < *suṃḥ, Lashi *sɔmH*

Chi. 獺 *that* < *r̥ˁat (21-24i) 'otter', Tib. སྐྱམ་ *sram*, Bur. ဖျံ *phyaṃ*, Lashi *ʔśam*

The five examples 'kill', 'sand', 'three', 'son-in-law', and 'produce' conform to the pattern Handel describes. He acknowledges that 'louse' contradicts his hypothesis, finding it best to “attribute the variation in Tibetan to an unknown cause” (2009: 209) and criticizing Benedict (1972: 108 n. 304) for setting up *śr- and *sr- on the sole basis of the two outcomes *śr- > *ś-* and *sr- > *sr-* in Tibetan. The same criticism applies to Jacques' reconstructions of Tib. *ś-* < *sr- versus *sr-* < *sə.r- to explain the same two examples (2015: 217). The different reconstructed initials *sr- versus *s.r- in Baxter & Sagart's system implies an explanation similar to Jacques'. For 'otter' Handel resolves the obstacle of *sr-* in Tibetan appearing before *-a-* by reconstructing *s-ram 'otter' rather than *sram; for him there is “no apparent cognate in Chinese” (2009: 202 note 20). This *sr- versus *s-

3 I omit a few of Handel's weaker cognate proposals. Their weaknesses are discussed in my forthcoming book.

r- notational slight of hand, exactly akin to the tack of Benedict that Handel rejects, has no descriptive or explanatory power.

2c. Jacques rejects Handel's explanation of the development of *sr-. First, he objects to the comparison of Chinese 產 *sreanX* < *s-ŋrarʔ (34-46a) ‘produce’ to Tib. སྲེལ་ *srel* 'rear, bring up' (2015: 216 note 2 on p. 221), but in so doing puts undue weight on Baxter & Sagart's reconstruction. Handel reconstructs *sˁren? (2009: 200, 204) and Schuessler *sˁran? / *sˁren? (2009: 291). Second, Jacques points out that Japhug Rgyalrong maintains medial -r- in at least one cognate where Chinese has the vowel *ə.[4]

Chi. 參 *syim* < *srəm (38-29a) 'rhizome', Japhug Rgy. *tʁ-zrʁm* ‘root’[5]

This example suggests that Handel's proposal may not be correct. Jacques (2015: 219-220) offers three explanations for the attested correspondences: (1). Languages other than Chinese share a change *sr- to *s-*, conditioned be a following inherited *-a- and possibly also *-o-. (2). Chinese innovates medial *-r- through infixation (cf. Baxter & Sagart 2014: 57-58). (3). Current reconstructions of Old Chinese include too many instances of medial *-r-. Jacques remains agnostic among these three possibilities.

2d. Considering Tibetan correspondences of those Chinese words that have an unexpected medial *-r- permits further contemplation of Jacques' third option. In most cases Tibetan exhibits a complex onset with a སྔོན་འཇུག་ *sṅon-ḥjug* or མགོ་ཅན་ *mgo-can* consonant, i.e. *s-*, *d, l-*, or *g-*. The overall pattern of unexpected Chinese *-r- corresponding to Tibetan complex onsets entitles one to speculate that Chinese had some 'pre-initial' in these words that conditioned the same effects in Middle Chinese as Old Chinese *-r-. Because it is unlikely that specifically *r- was the 'pre-initial' in all of these words, it is more suitable to reconstruct *R- as a convention to mean 'an indeterminate initial of a complex onset which bears the same effects as *-r-'. Particularly based on the comparison of Tibetan གསོད་ *gsod* 'kill' with Chinese 殺 *sreat* < *srat (21-29d), Pulleyblank posits *ks- as an origin of Middle Chinese 生 *sr-* (1965: 206-207). Gong similarly proposes *rsat as the origin of Chinese 殺 *sreat* < *srat (21-29d) (2002[2001]: 171).

Chi. 殼 *khaewk* < *[kʰ]ˁrok < *R[kʰ]ˁok (11-03a) 'hollow shell, hollow', Tib. སྐོག་ *skog* 'shell, peel'

Chi. 銀 *ngin* < *ŋrə[n] < *Rŋə[n] (33-01k) 'silver', Tib. དངུལ་ *dṅul*

Chi. 貧 *bin* < *(Cə.)[b]rə[n] < *(Cə.)R[b]ə[n] (33-30v) 'poor', Tib. དབུལ་ *dbul*

Chi. 虎 *xuX* < *qʰˁraʔ 'tiger' < *Rqʰˁaʔ (01-18b), Tib. སྟག་ *stag*

4 Jacques (2015) also proposes Chi. 色 *srik* < *srək (05-31a) 'color, sex, shame' cognate to Japhug Rgy. *tʁ-zraʁ* 'shame', but has more recently decided that the semantics are not sufficiently compelling (*per litteras* 27 January 2018).

5 Jacques (2017) further proposes Tib. གཤམ་ *gśam* 'base, underpart' as a cognate.

Chi. 膚 *pju* < *pra < *Rpa (01-51g) 'skin', Tib. ལྤགས་ *lpags*

Chi. 殺 *sreat* < *srat < *Rsat (21-29d) 'kill', Tib. √sad (pres. གསོད་ *gsod*)

Chi. 三 *sam* < *srum < *Rsum (38-30a) 'three', Tib. གསུམ་ *gsum*

2e. There are two comparisons, in which the Tibetan cognates have a simplex onset; these are apparent counterexamples to Pulleyblank's conjecture.

Chi. 蝨 *srit* < *sri[k] (29-35a) 'louse', Tib. ཤིག་ *śig*

Chi. 沙 *srae* < *sˁraj (18-15a) ‘sand’, Tib. ས་ *sa* 'earth'

In the first of these apparent exceptions, the Japhug Rgyalrong cognate *zruɣ* 'louse' confirms the Chinese onset *sr- is original. One may suggest that Tibetan underwent a change *sr- > ś- conditioned by the vowel -i-. Because the change *sr- > ś- preceded Dempsey's law *-eŋ > *-iṅ*), Tib. སྲིང་མོ་ *sriṅ-mo* < *sreṅ-mo 'sister of a man' avoided the former change (cf. Chi. 甥 *sraeng* < *s.reŋ [09-25g] ‘son-in-law’). I have no explanation for the correspondence seen in 'sand'.

3. Burmish sibilant correspondences. I am unable to dispel this miasma and limit myself to presenting the evidence organized according to the proto-Burmish outcome.

3a. *s-:

Bur. သက် *sak* < *sak 'breath', Lashi *sɔ?H*, Chi. 息 *sik* < *sək (05-29a)

Bur. သစ် *sac* < *sik 'tree', Lashi *sə:kH,* Tib. ཤིང་ *śiṅ,* Chi. 薪 *sin* < *si[ŋ] 'firewood' (32-33n)

Bur. အသည်း *asañṇ̃* < *siŋḥ 'liver', Lashi *səŋH*, Tib. མཆིན་ *mčhin* < *m-śin (?), Chi. 辛 *sin* < *sin (32-33a) 'pungent, painful'

Bur. သုံး *suṃḥ* < *suṃḥ 'three', Lashi *sɔmH*, Tib. གསུམ་ *gsum*, Chi. 三 *sam* < *srum (38-30a)

3b. *ʔs-:

Bur. သက် *sak* < *ʔsak 'life', Lashi -*ʔsakH*, Tib. སྲོག་ *srog*

Bur. သတ် *sat* < *ʔsat 'kill', Lashi *ʔsa:tH*, Tib. √sad (pres. གསོད་ *gsod*), Chi. 殺 *sreat* < *srat (21-29d)

Bur. သိ *si* < *ʔsiʔ 'know', Lashi *ʔsɛ:X*, Tib. ཤེས་ *śes*

3c. *ś-:

WBur. သောက် *sok* < *śuk 'drink', Lashi *śu:kH*, Chi. 欶 *sraewk* < *sˁrok (11-21o) 'suck, inhale'

3d. *ʔś-:

Bur. ဖျံ *phyaṃ* 'otter', Lashi *ʔśam*, Tib. སྲམ་ *sram*, Chi. 獺 *that* < *r̥ˁat (21-24i)

3e. For three words it is not currently possible to unambiguously determine the proto-Burmish initial as Lashi cognates are unavailable, and other languages (e.g. Atsi) do not maintain

pre-glottalized sibilants.

Bur. ဆဲ *sai* < *sai 'sand', Atsi *se*^{1}, Tib. ས་ *sa* 'earth', Chi. 沙 *srae* < *sˢraj (18-15a) 'sand'

Bur. သီး *sīḥ* 'separate', Atsi *śai*^{31} 'differ' (?), Tib. གསིལ་ *gsil* 'break down'

Bur. ဆ *sa* 'titivate', Atsi *sai*^{55} 'redo, repair', Tib. གསར་ *gsar* 'new', Chi. 鮮 *sjen* < *ser (23-21a) 'fresh'

3f. Jacques proposes Burmese *rh-* < *ʔr- as the cognate of Chinese *sr- (2015), offering the following example.

Chi. 生 *sraeng* < *N.sreŋ (09-25a) 'live, alive', Bur. ရှင် *rhaṅ* 'alive'

This cognate may be valid, but its vowel correspondence is irregular.

3g. In two sibilant correspondence sets no Burmese cognate is available.

Tib. སྲིན་མོ་ *sriṅ-mo* < *sreṅ-mo 'sister of a man', Chi. 甥 *sraeng* < *s.reŋ (09-25g) 'sister's child'

Tib. √sam (pres. སེམས་ *sems*) < *səm 'think', Chi. 心 *sim* < *səm (38-31a) 'heart'

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