Loanwords as Evidence for Old Chinese Uvular Initials

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In a recent article (Pulleyblank 1977–78) it was proposed to reconstruct final uvulars, *-q and *-ɓ, as well as palatals, *-c, *-ɲ, *-j, and labialvelars, *-kʷ, *-ŋʷ, *-w. Though this proposal is based primarily on internal reconstruction of the *Shijing* rhyme categories, the reconstruction of palatals and labialvelars gains support from the fact that we have independent grounds for reconstructing such consonants initially also.

The fact that in several Middle Chinese rhymes distinctive *kaikou* and *hekou* finals are only found after back initials provides *prima ficie* evidence for labial-velars as a distinct category in Old Chinese (Pulleyblank 1962). F. K. Li (1974 –75) also reconstructs such consonants initially as well as finally.

As for Old Chinese palatals, there are good reasons for supposing that the Middle Chinese dental sibilants may have originally had this place of articulation. The palatal initials of Middle Chinese are rather obviously derived from earlier dentals or velars. The dental sibilants, ts, ts‘, dz, on the other hand, form a distinct category that corresponds to a parallel series in Tibetan. The corresponding initials in Burmese are written *c* and *ch*, using the symbols for palatals derived from the Sanskrit alphabet. Though they are now pronounced [s] and [sʰ], it is reasonable to suppose that they were palatal stops or affricates at the time the language was reduced to writing, especially as there is a corresponding nasal *ñ* that still has this pronunciation. Burmese also had final –*c* and –*ñ* which correspond in a number of good cognates to Old Chinese *-c and *-ɲ (1977–78: 192). In all three languages, Tibetan, Chinese and Burmese, new series of palatals have arisen and one must suppose that the original palatals have in each case undergone a forward shift to make way for these new phonemes. This is

a process for which there are parallels in many other languages, including, for example, the Slavonic languages and medieval French. In Old French palatal [tʃ], derived from the palatalization of Latin k before the front vowels i and e, shifted to [ts] when a new [tʃ] arose from the palatalization of k before the low front vowel [æ], Later the affricates [ts] and [tʃ] became the fricatives [s] and [ʃ]. Hence we have modern French *cent* [sã] and *chateau* [ʃato], corresponding to Italian *cento* [tʃento], *castello* [kastello], from Latin *centum* and *castellum*.

Can we find similar evidence for a distinct series of uvular initials in Old Chinese? Uvulars, as such, are by no means unknown in Chinese. Mandarin has the voiceless uvular fricative [χ] and the corresponding voiced uvular continuant [ʁ], used by the majority of speakers for the so-called "zero" initial (Chao 1948, 1968: 20). These are not, however, in phonemic contrast with velar fricatives and are normally simply classed together with the velar stops k and k'.

There is evidence for a more substantial, though still allophonic, contrast between uvulars and velars in Middle Chinese. As was shown in Pulleyblank 1965, Middle Chinese /k/ and /k'/ had markedly different allophones, velar [k] [k'] before high vowels and uvular [q] [q'] before non-high vowels respectively. [1] This corresponds to the contrast in Turkish between [k] before front vowels and [q] before back vowels, and is reflected both in Chinese transcriptions of Turkish and in Turkish loanwords from Chinese. Further evidence comes from the fact that Chinese transcriptions of Indic languages avoided the back allophones [q] and [q'], which must have been too unlike Indic *k* and *kh*. This explains the invention of the special characters 迦 EMC kɨɑ and 佉 EMC k'ɨɑ to transcribe the Sanskrit syllables *ka*, *kha* instead of using such readily available characters as 歌 EMC kɑ, 軻 EMC k'ɑ.

The contrast which I interpret as velar/uvular corresponds to the one which Karlgren reconstructed as yodized/non-yodized (palatalized/non-palatalized) on the

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1. A similar proposal was made by S. Yakhontov (1956).

basis of the nearly complete separation that is found in the *fanqie* spellers in the *Qieyun*. As Y. R. Chao correctly argued (1941), the distinction is nonphonemic. Nevertheless there can be little doubt that it was quite marked phonetically. Moreover, there was a complete phonemic split between the corresponding voiced initials. Middle Chinese g occurred only before high vowels (yodized finals in Karlgren's system), while ɣ occurred only before nonhigh vowels (nonyodized in Karlgren's system). In Turkish we similarly find a voiced velar stop [g] and a voiced uvular fricative [ɣ] in the same environments as voiceless [k] and [q] respectively.

In his seminal article "Comment reconstruire le chinois archaïque" (1954) A. Haudricourt suggested that Chinese had once has uvulars, citing as evidence some old Chinese loanwords in Tai, namely words for "steel", based on 鋼 EMC kɑŋ, and "gold", based on 金 EMC kim. Unfortunately his argument depended on the interpretation of two obsolete Siamese letters which, it is now clear, represented velar fricatives, not uvular stops. F. K. Li reconstructs the two words in question with Proto-Tai *x and *ɣ respectively (1977). Though these unusual correspondences are still of much interest for the reconstruction of Old Chinese, they do not provide direct evidence for uvulars as Haudricourt thought.

This does not, however, exhaust the possibilities of finding loanword evidence for our hypothesis. The Miao and Sui languages of South China distinguish velar and uvular initials and also contain many old Chinese loanwords. The following list is based, for Miao, primarily on the material compiled by Purnell (1970). Where possible, I cite the White Miao forms (called Petchabun by Purnell), which can be checked in the dictionaries of Heimbach (1969) and Bertrais-Charrier (1964). Forms for other dialects are cited occasionally as necessary. For Yao, which does not preserve uvular initials but is often useful for identifying loanwords common to Miao-Yao since it preserves the finals better than Miao, I cite mainly the Chiengrai dialect, recorded in the dictionary by Lombard and Purnell (1968). For Sui I use Li (1965) and I have also con-

sulted Li (1977) for comparative Tai material. It should be noted that Purnell uses tc and tch to represent palatal stops, which I transcribe as c and ch.

The tones of White Miao as numbered by Purnell and spelled by tone letters in the missionary orthography show the following pattern of correspondences to Middle Chinese (cf. Downer 1967): 1 (–b)=*yinping*, 2 (–j)=*yangping*, 3 (–v) =*shang*, 4 (unmarked)=*yinqu* and *yinru* from –k, 5 (–s)=*yinru* from –p and –t, 6 (–g)=*yangru* from –k and *yangqu* 7 (–m)=*yangru* from –p and –t.

The tones of Sui and Tai are labelled according to the Tai system in which A, B, C, D correspond to *ping*, *qu*, *shang* and *ru* in Chinese and 1, 2 correspond to *yin* and *yang* registers.

Miao uvulars=Chinese velars

"borrow" Miao qe 3, Yao caa 3. Cf. 假 EMC kaʳˀ.

"chicken" Miao qai 1, Yao cai 1. Cf. 雞 EMC kɛj.

"close the mouth" Miao qo 5, Yao gaap 3. Cf. 合 EMC kəp, ɣəp. (*The Guangyun* defines kəp as 合集 "bring together" and ɣəp as 合同 "agree", indicating an original transitive/intransitive contrast. In modern usage *hé*, derived from ɣəp, is used for both meanings and *gě*, derived from kəp, is used only as a measure of capacity.)

"guest" Miao qhua 4, Yao khɛˀ 3. Cf. 客 EMC kʻaʳjk.

"hole" Miao qho 3 (Chang–fang qhaŋ 3, Kwei–chu qhoŋ 1). Cf. 孔 EMC kʻowŋˀ

"narrow" Miao nqai 7, Yao (Haininh) gep 3. Cf. 狹 EMC ɣɛʳp.

"open" Miao qhe 1, Yao khɔi 1. Cf. 開 EMC kʻəj.

"price" Miao nqe 4, Yao caa 5. Cf. 價 EMC kaʳʰ.

"sweet" Miao qa 1 (Lu–shan qaŋ 1), Yao kaam 1. Cf. 甘 EMC kam.

"thirsty" Miao nqhi 5, Yao gaat 3. Cf. 渴 EMC kʻat.

"work" Miao (Chang–fang) qau 1, Yao koŋ. Cf. 工 EMC kowŋ

Miao palatals=Chinese velars

"air, anger" Miao chi 7, Yao chia 5. Cf. 氣 EMC kʻɨjʰ.

"bridge" Miao cho 2, Yao cou 2. Cf. 橋 EMC giǎw.

"ride a horse" Miao cai 2, Cf. 騎 EMC gʳiǎ < *gàj. Vietnamese has *cuōi*,

based on the *qusheng* reading EMC g^{r}iă^h.

Sui uvulars=Chinese velars

"chicken" Sui qai Bl, Cf. 雞 EMC kɛj. The tone is irregular. The same irregularity is found in Tai, cf. Siamese kai Bl.

"dark (red)" Sui qăm Bl, Siamese kam/klam Bl. Cf. 紺 EMC kəm^h.

"mustard" Sui qat Dl, Siamese kaat Dl. Cf. 芥 EMC ka^{r}j^h < *-s.

"price" Sui Ra Bl, Siamese khaa B2. Cf. 價 EMC ka^{rh}.

Sui palatals=Middle Chinese velars

"nine" Sui tšu Cl, Siamese kau Cl. Cf. 九 EMC kuw^ʔ

"ride a horse" Sui tsi, tši B2, Siamese khii Bl. Cf. 騎 EMC g^{r}iă, g^{r}iă^h.

The consistent pattern that emerges from this material is that both Miao and Sui have uvular initials in loanwords based on Type A syllables, i. e. those with nonhigh vowels in Middle Chinese. Loanwords based on Type B syllables, with high vowels in Middle Chinese, have palatal stops in Miao and palatal affricates in Sui. This corresponds exactly to the contrast between back and front allophones that we have postulated for Middle Chinese. From this point of view it gives a welcome confirmation to our hypothesis. It still falls short, however, of providing evidence for a phonemic contrast between uvulars and velars at a still earlier stage.

There is only one, somewhat doubtful, example of a Miao velar in a word that can be identified as a possible loanword from Chinese.

"corner" Miao kau 7, Yao kɔ^ʔ. Cf. 角 EMC ka^{r}wk. The Miao tone indicates a voiced initial but the Yao tone belongs in the upper register.

For "untie" Sui has tši Bl, corresponding to Siamese kɛɛ Cl, which looks like a loan from 解 EMC ka^{r}j^ʔ.

These two items are hardly sufficient to establish a phonemic contrast in Old Chinese, especially since both Chinese words probably *kr initial clusters which are unrepresented in the putative loanwords.

Though the loanword evidence is thus inconclusive in itself as far as I can tell at present, one can argue on general grounds that the Middle Chinese

allophonic contrast is more likely to have arisen from the fronting of uvulars before high vowels than from the backing of velars before nonhigh vowels. Fronting processes are much more widely attested than backing processes in diachronic phonology. The fact that Middle Chinese back allophones of /k/ and /k'/ have not been preserved in any modern dialect, so far as I am aware, is in conformity with this general trend.

Two kinds of evidence suggest themselves for further investigation. In the first place we need to continue to search for internal evidence within Chinese of separate velar and uvular initials in Old Chinese. In the second place, if such a distinction existed, we should expect to find it reflected in Tibeto-Burman. I shall not pursue these questions here except to note (a) that occasional *xiesheng* series in which velars alternate with dentals may hold a clue as to the fate of the original Old Chinese velars, e. g. 庚 EMC ka^{r}jŋ, phonetic in 唐 EMC daŋ, (b) the Tibetan palatals may, at least partly, represent the original velars as opposed to the uvulars and labialvelars.

Benedict at first assumed that Tibetan palatals were derived from the palatalization of dental sibilants in front of a palatal glide. In the notes to his *Conspectus* (1972) he derives them instead from original palatals, Thus, he reconstructs *tś-, instead of *ts(y)-, for the root found in Tibetan gčid-pa, gči-ba "urinate", gčin "urine", Burmese chì "urine", as opposed to *ts- in the root found in Tibetan tshigs "joint", Burmese ăchac (cf. Chinese 節 EMC tsɛt <*cə́c). If, as proposed above, we reconstruct the Tibetan dental sibilants as palatals, the Tibetan palatals should represent the original Tibeto-Burman velars, leaving the Tibetan velars to represent the original uvulars. In Burmese the velars evidently merged with the original palatals. Judging by such a comparison as "dog" Tibetan khyi, Burmese khwè, Chinese 犬 EMC k'wɛn', the original labialvelars became palatalized velars in Tibetan. These developments can be summarized as below.

Sino–Tibetan	Tibetan	Burmese	Chinese
*Q	K	K	K
*Kw	Kj	Kw	Kw
*K	Č	C	K/T
*C	TS	C	TS

If this hypothesis is correct, it may account for some of the aberrant velars that are found in Min dialects corresponding to Middle Chinese palatals that one would otherwise reconstruct as dentals. A case in point is *chǐ* 齒 "tooth" EMC tɕˈi̯ʾ, Amoy and Chaozhou kˈi, which is probably cognate to Tibetan mčhe-ba "eye–tooth".

Further exploration of these questions must await another occasion. Meanwhile I offer these pages to the memory of a very great scholar who was also an outstanding personality and whom I felt privileged and proud to call a friend.

Conventions

Middle Chinese forms are given in Early Middle Chinese (EMC) as reconstructed in Pulleyblank (1982).

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