The spelling-style pronunciation of Written Tibetan, and the hazards of using citation forms in the phonological analysis of spoken Tibetan[1]

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'It is a habit of Tibetans, probably of people in general, to pronounce a word in one way when used in the ordinary speech, and in another way when the word is read from a book.' (Y. R. Chao, in Yu and Jaw, Love Songs of the Sixth Dalai Lama Tshangs-dbyangs=rgya-mtsho, Peiping, 1930)

I. Reading-style pronunciation of Written Tibetan

In *Love Songs of the Sixth Dalai Lama* (Yu and Jaw 1930) Jaw (Y. R. Chao) has transcribed the 62 songs from three readings, 'once very slowly for direct listening and transcription and twice naturally to a dictaphone for subsequent transcription by repeated listening' (26). His transcription is remarkable for combining phonemics, including tonemics, with phonetics, including pitch, through symbolizing allophones; it is even more remarkable in being also stylistic: it introduces symbols into the transcription for distinguishing variations in style: (i) 'an asterisk in the transcription . . . means that the symbol or symbols marked by it are, in ordinary speech, not pronounced as transcribed there. The ordinary pronunciation is given on page 198-199' (ix); (ii) 'when the three readings differ for a particular sound the variation is placed in parenthesis' (27); e.g.

1. ça⌃r⁵⁵ tç'ok⁴⁴ ɹi¹¹ vø³⁵ tse⁴⁴ nɛ¹¹
 ka⌃r⁵⁵ sel*r ta¹³¹/¹¹va⁴⁴ ça⌃r⁴⁴ tç'uŋ¹³¹/¹¹
 (Yu and Jaw 1930:44)

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ii. ten(ɲ)⁵⁵ t(')i(ı)¹²¹/²² t(t')yn(m)¹²¹/¹¹ ma(ə)ɹ r²⁴
tɕ'uŋ¹³¹/¹¹ na³³ ta¹³¹/¹¹ts'ø¹³ tiŋ⁴nɛ³⁴
noɹr⁴⁵p(')u*¹³¹/⁵⁵
(Yu and Jaw 1930:48)[2]

(i) *shar-phyogs ri-bo'i rtse-nas dkar-gsal zla-ba shar-byung*
'From the mountain peaks in the east, the silvery moon has peeped out.'

(ii) *brtan-gyi bdun-mar byung-na rgya-mtsho'i gting-nas nor-bu*
'. . . were to become my lifelong companion, a jewel from the bottom of the ocean . . .'

The asterisked lexical items /seı/ *gsal*, /ɕeı/ *zhal*, and /p(')u/ *bu* are given as /se/, /ɕe/, and /pu/ in 'ordinary speech' (198); the brackets indicate that the sounds [ə], [ɲ], [ı], and [m] alternate with [a], [n], [i], and [n] for the phonemes /a/, /n/, /i/, and /n/, and that the phonemes /t'/ and /p'/ alternate with the phonemes /t/ [sic, for /ʈ/; see note 2] and /p/.

II. Spelling-style pronunciation of Written Tibetan

The two styles of pronunciation that Chao has referred to in the passages quoted in the preceding section (I) are what I have termed the Reading style, exemplified here in the 'transcribed text' of *Love Songs*, read, or recited, by his informant Lopsang Sanggay, and Lhasa Tibetan (LT), a contemporary spoken, and normally unwritten, dialect of Tibet, referred to by Chao as 'ordinary pronunciation.' As I have pointed out elsewhere, in my work with my informant Rinzin Wangpo (R) during the period 1948-50 I

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2   The symbol /t/ in 't (')i (ı)' and in 'ta' must be a misprint for /ʈ/ (13). Chao could, in my opinion, have added to his list of stylistic variations the following from example (I): /ɕatɕo/ [ɕa:dʑɔ:], /kasɕ/ [ka:sɛ:], and /ɕatɕuŋ/ [ɕa:dʑũ] as the 'ordinary pronunciation' of 'ɕaɹrtɕ'ok', 'kaɹsɛl', and 'ɕaɹrtɕ'uŋ'.

It is possible, if not probable, that the first of the three readings, which Chao has described with the words 'very slowly', may have been so slow as to give rise to artificial pronunciations (of the type /ˈbreikfɑːst/, in English, for /brɛkfəst/, in which case Spelling-style pronunciations may have intruded into this specimen of Reading-style pronunciation.

found it necessary to distinguish a third style of pronunciation, the Spelling style, though this third style has, as is only to be expected, much in common with the Reading style: 'the relations of these two styles to LT are quite different from the relations of e.g. the Tsang, Kham, or Sikkim dialects to it; for R. shares these two styles with literate speakers of these three dialects, and indeed with all literate Tibetans regardless of dialect or province of origin' (Sprigg 1968:15).[3] My informant was reluctant to pronounce words in isolation, as citation forms, without first identifying them, and distinguishing them from homophones, through naming the orthographic components in order of writing. This technique is described in Bell (1939:17); e.g.

ཀྐ   (WT *ko*):   ka-na-ro, ko

 སྐྱོགས   (WT *ltogs*):   la-ta-ta, ta, ta-na-ro, to, tok˙-k˙a-sa, tok˙;

but I made greater use of the slightly later book, Gould and Richardson 1949, for studying this characteristic aspect of Tibetan literacy, through sections B1-3 ('The simple consonants', 'The vowels', 'The compound consonants', 'Subjoined consonants', 'Superscribed consonants'), B4-8 ('Prefixed letters'), B9-13 ('Final consonants'), and B20-35 ('Spelling'), with careful attention to pitch behaviour; e.g.

|ka vʌsur ka]⁴   *ka wa-zur kwa*   'ka wa-corner kwa' (B2)

[la]apta]a]   *la lha-btags lha*   'la lha-joined lha' (B3)

[phʌu sa gapta   ga   ɹata   dɹa   kjɪkudɹɪk   kha: ɜa: dɹɪk]
ba'u   bas bsga-btags bsga ra-btags bsgra gi-gu bsgrig ga   sa   bsgrigs
'little-ba bsa bsga-joined bsga ra-joined bsgra gi-gu (vowel 'i') bsgrig ga sa bsgrigs' (Sprigg 1968:20)

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[3] I have recently had cause to modify this statement: speakers of the Golok dialect of Tibetan, of Amdo, in the extreme northeast of the Tibetan-speaking area, have a Spelling-style pronunciation of their own, different from the general Spelling style of Lhasa, Tsang, Kham, and Ladakh speakers; e.g., [Golok Spelling style) []op, ɸlab-, rdo, βdi:] *slob, bslabs, zlo, bzlas* 'teach, taught, say, said': cf. (general Spelling style) [¯ lap, ¯ lʏp, _ ndɔ:, _ ndɛ?], and (Golok-dialect spoken forms) [ɽ(ɜ)tɜab, ɸtɜab, rdzo, bzi:] (Sprigg 1979:53).

[4] These spelled syllables are conventionally pronounced with specific tonal contours, though we are not indicating them because of transcriptional difficulties. (Ed.)

Phonetic criteria

While, therefore, the Reading style of pronunciation was recognized as distinct from LT as early as 1930, a separate style or pronunciation for *spelling* has not, so far, been recognized; on the contrary, Nishi Yoshio, in a recent letter, has expressed surprise at my proposal to distinguish a further style from the Reading style: 'I myself have noted and mentioned in section 3.1 of my paper on "Tibetan dialects" (1988) that in the older literature of Tibetan dialects the authors often confused the reading style and colloquial style pronunciations quoting an example from the Amdo dialect. (I suspected that Nishida's Amdo is one such example.) However, it is quite new to me that there is a further distinction between the reading and spelling style pronunciations' (12/11/90).

In response to Nishi's comment I have paid special attention, in what follows, to phonetic features that distinguish the Spelling style from the Reading style, and therefore have the status of absolute criteria of the Spelling style, from those which are shared with the Reading style, as joint criteria, versus LT. Elsewhere, I have given criteria for distinguishing the Spelling style at the situational, lexical, and grammatical levels of linguistic analysis (1968:15-21); in what follows such features as I need to cite as criteria will be restricted to the phonetic level. For this account of the phonetic features characteristic of the Spelling style, especially those features which distinguish the Spelling style from LT, I have divided my material into (A) word-initial, and (B) word-final, features.

A. WORD-INITIAL

1. Nasal-and-plosive/affricate clusters, and a nasal-and-fricative cluster

The most prominent characteristic of the Spelling style in word-initial position is nasality as the opening feature of a cluster in which the initial nasal is homorganic in voicing — voice — and in place of articulation — velar, alveolo-palatal, alveolar, dental, bilabial — with a following plosive or affricative. [Ng Ndẓ Ndɹ Ndz Nd Nb], or, in fast-tempo utterances, with a

following alveolar fricative, [Nz], as a stylistic variant of [Ndz].[5] Since this word-initial cluster feature is shared with the Reading style, it is not an absolute criterion of the Spelling style; but it serves, as a joint criterion, to distinguish both these styles from LT; e.g.

[ŋgak, ɲdʑam, ndʐɑ:, n(d)zak, ndɑ:, mbɤp]
'gag, 'jam, 'dra, 'dzag, mda', 'bab
'block, soft, such, leak, arrow, descent' (Gould and Richardson 1949, B8).

Thus, 'bab is spelt: [ʌʊ mbɑ: pha mbɤp] or, alternatively, [ʌʊ mbɤp pha mbɤp] ('little-a ba ba bab' or 'little-a bab ba bab'). Such phonetic forms are common to literate Tibetans throughout the greater part of the Tibetan-speaking area, from U (including Lhasa), Tsang, and Kham to, I believe, Ladakh, though it is worth noting in passing that these six types of cluster also occur in word-initial position in the spoken Tibetan of Kham and Amdo, and cannot therefore serve as a phonetic criterion of the Spelling style for Kham-dialect and for Amdo-dialect speakers: e.g. /mbɪ/, /ŋgo/, /nja/, /ndɪ/, /ndzɪgɪ/, /ndra ndra/ ('worm, head, rainbow, this, finger, and-the-like') 'bu, mgo, 'ja', 'di, mdzug-gu, 'dra'dra (Ray 1965:339-42).

The corresponding LT sounds to these Spelling-style clusters are simple plosives and affricates, with a voiced alveolar fricative as a fast-tempo alternative to one of the affricates:

Spelling style: [ŋg ɲdʑ ndʐ n(d)z nd mb]
Lhasa dialect: [g dʑ dʐ (d)z d b]:

e.g. 'gyur, 'ja, 'dra, mdzo, mda', 'bog ('change, rainbow, like, hybrid yak, arrow, wrapper'). As one would expect, therefore, Chang and Shefts 1964 symbolize the following LT lexical items in '-/m- with the simple word-initial plosives and affricates c, t, and ts, not the clusters appropriate to the Spelling style:

ca, ta, tso; 'ja', mda', mdzo; 'rainbow, arrow, hybrid yak' (pp. 2, 4, 5).

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[5] I have given to [N] here the phonetic value of a homorganic nasal, similar to the function of the prefix (sngon-'jug), written ᴿ and transcribed with the apostrophe /'/. [N] has the same voicing feature (voice) and the same place of articulation as the following plosive, affricate, or fricative.

Confusion of spelling style with LT pronunciation

In other phonological analyses of LT, however, the presence of word-initial clusters of a nasal with a plosive or affricate proves their examples to be, in my opinion, not LT but spelling style. Kitamura (1974:7, 8, 9, 13, 14, 26), for example, has given the following six cluster-initial lexical items as examples:

[^{13m}ba, ^{13n}da, ^{13}ŋgju:, ^{13n}dzo, ^{13}ɲdʑa, ^{13}ɳɖa] 'ba', mda', 'gyur, mdzo, 'ja', 'dra ('Ba, arrow, change, hybrid yak, rainbow, resemble');

and (Hari 1979:7, 14, 20, 31, 73) has given:

[ŋge:, ^{n}dʑe:, ɳɖu·ʔ˥/ɳɖuk˥ ^{m}bo·ʔ˥ ^{n}do·ʔ˥ ^{n}dzo] rgal, mjal, 'brug, 'bog, mdog, mdzo ('bathe, visit, Bhutan, cloth used for carrying things, colour, hybrid yak').

Thus, Chang and Shefts 1964 give simple plosive and affricate initials for such words as those given above; but Kitamura and Hari give clusters for them. Hu (1982:25), on the other hand, gives both types of pronunciation for LT-speakers 'prénasalisées' (my *cluster-type*) and 'non-prénasalisées' (my *simple-type*): 'les non-aspirées se divisent en prénasalisées et non-prénasalisées dans le parler d'une partie des habitants de Lhasa:

ko^{12} to^{12} tʂa^{12} 'porte, pierre, son' (WT sdo, rdo, sgra)
ŋko^{12} nto^{12} ɳtʂa^{12} 'tête, livre canonique, ressembler' (WT mgo, mdo, 'dra).

D'après notre enquête ceux qui ne distinguent pas sont les plus nombreux.' I suspect that the minority referred to here, which made distinctive use of the nasal-initial-cluster pronunciation, did so under the influence of the Spelling style; while the majority, which used simple voiced plosives and affricates for that type of lexical item, could be expected to include those

speakers who were illiterate and, therefore, had no knowledge of the Spelling style of pronunciation.[6]

2. Non-syllabic back rounded vowel in high-tone lexical items

A less prominent word-initial characteristic of the Spelling style is the voiced non-syllabic back vowel [v] in high-tone lexical items, especially when it occurs in combination with a vowel other than open or half-open back spread [ɑ ʌ]; e.g.

Spelling style:	[v]	vʊk⁻	vy?	vu:	vøn	vɑŋ⁷
Lhasa dialect:	[?]	?u:	?y:	?ʊ	–	vɑ̃:/?5:
		dbugs	dbus	dbu	dbon	dbang

('breath, middle/Ū (province), head (hon.), nephew [dbon·po], power').

Thus, dbus is spelled: [thʌʊ vɑ çʏpkjʊ vy: sɑ vy?], ('little ⁻d⁻, dba, spur [⁻u⁻ vowel] dbus sa dbus').

It is only in combination with an open or half-open back spread vowel that [w] occurs in high-tone lexical items in LT, and, even then, only in the single lexical item dbang; e.g. [vɑ̃: tçhɪmbʊ] dbang chen-po 'powerful', [di: vʌŋɡɪ] 'di dbang-gis 'on the strength of this', [vʌ ŋtç(h)ʊk] dbang-mchog 'Wongchuk' (personal name); in popular speech, though, dbang has its regular pronunciation [?5:], alternating with [?ʊŋ] according to type of junction, in such personal names as [?ʊŋdɛn] dbang-ldan 'Ongden'.

When combined with vowels other than [ʊ ʌ] in high-tone lexical items, therefore, the non-syllabic back rounded vowel can serve as a criterion of the Spelling style; e.g. [vu-, vu:, vy- vø-] above.

Confusion of Spelling style with LT pronunciation

Kitamura (1974:3) gives alternative pronunciations for the lexical item dbo 'name of a lunar mansion': ⁻⁻vo-⁻'o⁻; I take these two pronunciations

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[6] There is also the possibility that some of the 'habitants de Lhasa' referred to by Hu as using prenasalized initials might have been immigrants from Kham and Amdo, in whose dialect nasal-cluster initials are phonologically distinguished; cf. Ray 1965's Kham-dialect examples in this section (1) above.

[7] The raised right-angle has been used here to symbolize 'plosion without audible release' (Roach 1989:71).

to be distinguished by style, the former pronunciations, with the non-syllabic back rounded vowel, being Spelling-style, and the latter, with its glottal plosive (cf. Kitamura 1974:10), being LT; thus, they are not, in my opinion, in free variation, but in complementary distribution, by style.

3. Non-syllabic voiceless breathed vowel in low-tone lexical items

A second minor characteristic of the Spelling style is the occurrence of a non-syllabic voiceless breathed vowel [h] initially in low-tone lexical items: e.g. (with LT forms for comparison)

Spelling style:	[h]	h(ʋ)ɔmɑ:	hʌŋgu:	høt
Lhasa dialect:	[V]	ɔmə	ʌŋgʊ	ø:
WT:	[']	· 'o·ma	'ang-gu	'od
		('milk, dove/pigeon, light').		

Confusion of Spelling style with LT pronunciation

Yu and Jaw (1930:2, 7, 10, 13), however, have noted the initial sound in words such as these as a voiced glottal (arytenoid) fricative [ɦ]; and so has Hari (1979:18, 21): e.g. [ɦʋoma] 'o-ma 'milk'. This initial too I take to be either Reading-style, as in Chao's *Love Songs*, or Spelling-style, as in Hari's phonetic transcription. It is the initial syllabic vowel that is the representative LT sound (cf. also the Germanic comment of Jäschke 1881/1934: 'we meet here with the idea of the *vowel absolute*, the pure vocalic note, freed altogether from any presence of a consonant. This vowel-tone is rendered by the letter of the alphabet ᖱ...' (p. xiv).

The word 'od 'light' is spelled, in my material:

[ha naɹɔ hø: thɑ høt];

and [h], or (for Chao and Hari) [ɦ], is a criterion of the Spelling style of pronunciation, but only for low-tone lexical items. [h] also occurs in high-tone lexical items, but in the Spelling style and the spoken Tibetan of Lhasa equally, hence without the role of a Spelling-style criterion: e.g. *hor-pa* 'Tartar', *ha go-ba* 'understand'.

The three characteristics referred to above in this section (A.1-3) complete the list of initial features by which the Spelling style may be

distinguished, wholly or partially, from the spoken Tibetan of Lhasa, though not from the Reading style, with which all three are shared.

B. WORD-FINAL

Just as the word-initial features of the Spelling style contain a few phonetic features that are never to be heard in utterances in the spoken dialect of Lhasa, so, too, there are word-final features in the Spelling style — quite a number of them, in fact — that are either never to be heard from Lhasa-dialect speakers, or never to be heard apart from very exceptional lexical items; while other final features, on the other hand, are common to both styles, with few if any exceptional items. It seems best to begin by making a general comparison of the finals within the two styles within the framework of the orthographic categories of written Tibetan, and then to list the few exceptions that make this general comparison an over-generalization (albeit a useful one):

	Orthography	Spelling style	Lhasa dialect
1.	-d	[ɪt et ɛt øt yt] [ɪʔ eʔ ɛʔ øʔ yʔ]	[i: e: ɛ: ø: y:]
2.	-l	[ɪl el ɛl øl yl]	[i: e: ɛ: ø: y:]
3	-n	[ɪn en ɛn øn yn]	[ĩ: ẽ: ɛ̃: ø̃: ỹ:]
4.	-s	[ɪʔ eʔ ɛʔ øʔ yʔ] [i: e: ɛ: ø: y:]	[i: e: ɛ: ø: y:]
5.	-ng(s)	[iŋ ɛŋ aŋ ʊŋ ʊŋ]	[ĩ: ɛ̃: ã: ɔ̃: ũ:]
6.	-g(s)	[ɪk ɛk ak ɒk ʊk]	[i: e: a: ɔ: u:]
7.	-r	[ɪr ɛr ar ɒr ʊr]	[i: e: a: ɔ: u:]
8.	-i/e/a/o/u	[i: e: a: ɔ: u:]	[ɪ ɛ a ɔ ʊ]
	-a'	[a:]	[a]
9.	-b(s)	[ɪp ɛp ɣp ɒp ʊp]	[ɪp ɛp ɣp ɒp ʊp]
10.	-m(s)	[ɪm ɛm am ɒm ʊm]	[ɪm ɛm am ɒm ʊm]

For example:

1.	khrid	red	skad	bod	dud
	bring!	is	voice	Tibet	smoke

2.	dkyil	shel	gsal	sol	dngul
	middle	glass	clear	charcoal	silver
3.	nyin	gnyen	gdan	yon	mthun
	day	kinsman	mat	fee	agree
4.	gnyis	bzhes	'bras	'os	dbus
	two	eat	rice	worthy	Ū
5.	zhing	deng	dbyangs	ljongs	chung
	field	nowadays	vowel	district	small
6.	mig	theg	lags	thog	thugs
	eye	support	yes	roof	mind
7.	btsir	zer	phar	'byor	zur
	press	say	beyond	obtain	corner
8.	bzhi	lce	bka'	mgo	'bru
	four	tongue	order	head	grain
9.	zhib	slebs	zhabs	sob	slubs
	flour	arrive	foot	soft	covering
10.	gzim	sems	khams	zom	gsum
	sleep	mind	Kham	bucket	three

There are twelve types of word-final phonetic features to be considered for the Spelling style. I have taken them in order of distinctiveness, giving first, at (1)-(5) below, the five types of orthographic final in which the usual Spelling-style set of finals is never to be heard in LT, next, at (6)-(7), the two types for which the Spelling-style features overlap those of the Lhasa dialect, though only slightly, through a handful of exceptional lexical items, and lastly, at (8)-(10), the three types for which there is a complete overlap between the two styles, though some individual lexical items that are common to both written Tibetan and LT in these categories may differ in pronunciation somewhat according to environment.

1. -d: voiceless dental stop [t ˥] or (voiceless) glottal stop [? ˥]

The voiceless dental stop occurs in association with a range of five front vowels, [i e ɛ ø y], all of them characterized by shortness: these features are to be heard in such words as *bod* 'Tibet' and *brnyed* 'find' when spelt:

[pha naɹɔ phøː thɑː phøt⁻]

[phʌʊ ɹaɲata ɲa dɹɪŋbʊ ɲeː thɑ ɲet⁻].

I could not help being struck by the fact that my informant, R, seemed to have no difficulty in pronouncing a dental stop in word-final position in utterances in the Spelling style of Tibetan but to have great difficulty in pronouncing a phonetically very similar alveolar stop in word-final position in English. The word *Tibet*, for example, he never learnt to pronounce other than with a voiced vocalic off-glide, as [ɽɪbeɽɪ].

As an alternative pronunciation to the final dental stop for lexical items spelt with the final *d*, R quite commonly used a glottal stop; e.g., [phø?⁻] *bod* 'Tibet'; but he claimed to find the dental preferable to the glottal, probably, I think, because it enabled him to make a distinction between final *d* and final *s* ((4) below). The reason why there are these two phonetic interpretations of *-d*, [t] and [?], may well be that there is a change in pronunciation in progress, the direction of change being, presumably, from [t] to [?].

The dental stop and glottal stop as criteria

The dental-stop pronunciation never occurs in LT; nor have I heard it in Reading-style utterances. It is, therefore, an absolute criterion of the Spelling style, and renders it obligatory to distinguish this style from the Reading style, which the Spelling style otherwise closely resembles.

The alternative pronunciation, glottal stop with matching shortness of vowel, is not in as strong a position to claim absolute-criterion status as the dental stop: on the one hand I have heard it, though only very rarely, in R's Reading-style utterances, in, for example, *brgyad* 'eight' pronounced as [ɟɛ?]; and it can also be heard in LT as a stylistic alternative to a long vowel [eː øː ɛː] in such sentence-final verb words as *red, yod,* and *med* ('is', 'are', 'aren't') and the corresponding verbal-particle lexical items *-red, -yod,* and *-med,* for which a pronunciation with a short vowel and glottal stop, [ɹe? jø? mɛ?], helps, stylistically, to convey emphasis. The glottal stop, then, comes close to being admissible as an absolute criterion of the Spelling style, distinguishing it as an independent style of pronunciation from the Reading style and from LT alike, but marred by the exceptions that

I have mentioned, even though, in LT at least, these fall into a special stylistic sub-category, the Emphasis sub-category.

The corresponding range of finals in LT to the Spelling style range
[ɪt/ʔ et/ʔ ɛt/ʔ øt/ʔ yt/ʔ] is, as is well known, the long-vowel range [i: e: ɛ: ø: y:], all of them being front vowels, occurring in, for example, khrid, 'gyed, bshad, bod, and lud.

Confusion of Spelling style with LT

The second, fourth, and fifth of the above examples, along with phud, have also been used by Chang and Shefts in the tape-recording that accompanies their *A Manual of Spoken Tibetan (Lhasa Dialect)* (1964:6) in their section 'VV' ('geminate vowels'), transcribed as:

keè, phǫ̀ǫ̀, lṳ̀ṳ̀, phūū ('gyed, bod, lud, phud),

but I hear two of these, 'gyed and bod, as having not a long vowel but a short vowel plus glottal stop, [-eʔ -øʔ]. I strongly suspect that this glottal stop and its associated shortness of vowel are due to confusion with the Spelling style. My suspicion is the same for Hu's (1982:20) transcription of khrid, bshad, and bsdad as:

tʂ'i ʔ53, ɕɛ ʔ53, tɛ ʔ131.

Familiarity with the Spelling style from early childhood makes it difficult for a literate Tibetan to pronounce a word in isolation, especially if it is monosyllabic, in anything but its Spelling-style pronunciation. Thus it comes about that the same type of example, d-final, can be classified as 'geminate vowel' ('VV') by Chang and Shefts (pp. 1, 6), but very differently, as 'VG' ('finales fermées par -p, -k, -ʔ, ou encore à ton abrupt') by Hu (p. 20), thus making a major difference of category between these two analyses.

For some of her examples Hari's transcription corresponds to Hu's, e.g.,

[ɲ(j)()e̬·ʔ˜] bmyed 'find':

but in others she avoids the contradiction by embracing it: her trans-
criptions show alternative final sounds, one of them being a glottal stop ·and
the other being a half-long vowel, e.g., for her phonemic transcriptions
/lyh?/ and /phy?/ 'fertilizer' and 'food offering' (lud, phud) her phonetic
realizations are:

[ly·?/ly·], [pʰy·?⁻/pʰy·] (p. 13).

Hari elsewhere phonemically transcribes lexical items of this orthographic
type with a vowel in final position, realized phonetically as a long vowel, e.g.
/lyh/ [ly:] lud 'boil over' (p. 29).
Both her alternative phonetic forms are acceptable to me but for different
phonological functions, the stop-final form as the Spelling-style alternative,
and the vowel-final form as the LT alternative.

In the same way I recognize Kitamura's alternative phonetic
transcriptions for his '/VV/' category, [-V·?]/[-V:], e.g. rmed 'crupper',
smad 'lower part', to be stylistic alternatives, the former being Spelling-style
and the latter being LT.

This conflict in phonetic form can be more easily followed if put in the
form of a table, with C. and S. for Chang and Shefts:

C. and S.	VV	[-V?]	kèe̞, phɔ̞ɔ̞: 'alms, Tibet': 'gyed, bod:
		[-V:]	phũũ, lũ̠ũ̠: 'offering', 'fertilizer': phud, lud
Kitamura	VV	[-V·?]/[-V:]	ˉmee, ˉmää: 'crupper, lower part'; rmed, smad
Hari	V?	[-V·?]	/ɲi?/, /ɲe?/, /ˈkjɛh?/; 'sleep (n), find, eight'; gnyid, rnyed, brgyad:
		[-V·?]/[-V:]	/phy?/, /lyh?/; 'food offering, fertilizer': phud, lud:
	V	[-V:]	/lyh/, /khɛh/; 'boil over, litter (n)': lud, khad:
Hu	VG	[-V?]	tʂ'i?⁵³, ɕɛ?⁵³, tɛ?¹³¹; khrid, bshad, bsdad.

2. -l: voiced palatalized alveolar lateral [l ʲ]

In the Spelling style a final voiced palatalized lateral occurs in
combination with the same set of vowels as for lexical items spelt with -d.

namely the five front vowels, spread [ɪ e ɛ] and rounded [ø y]. As examples of -*l* in Spelling-style utterances I take *shel* 'glass' and *mjal* 'meet':

[ça dɹɪŋbʊ çel laçel]
[mʌʊɲdʒaː la ɲdʒɛl]

Final [l] is almost totally absent from word-final position in LT, the only *l*-final word that I have in my LT material is *til* 'sesame', a loan-word from Hindustani (*tail/tel*). The *l*-final lexical items of the Spelling-style, with short vowels [ɪ e ɛ ø y], have the corresponding long front vowels in word-final position in LT. [iː eː ɛː øː yː], e.g. [mɛkçeː] *mig-shel* 'spectacles', [maɲdʒɛː] *ma-mjal* 'not having met'. In LT all the *l*-final vowel qualities overlap the *d*-final series, at (1) above. Because of this high degree of overlapping it is difficult to distinguish *l*-final lexical items from *d*-final lexical items without having recourse to the Spelling style; but, in one sub-category of intraverbal junction, that in which a syllabic vowel follows as the initial sound of the second lexical item, there are a few words in which a final lateral occurs, making it possible to identify the former of the two lexical items as *l*-final; e.g. [jøːlə] (also [jɔːlə]) *yol-ba* 'curtain', cf. [çeːjøː] *shel-yol* 'curtain'; [tshɪlʊ] *tshil-bu* 'suet, fat', cf. [çiˑtsiː] *bzhes-tshil* 'suet, fat' (hon.); [tɹɛlə] (but more commonly [tɹɛvɑ]) *brel-ba* 'engaged, busy', cf. [thʊdɹiː] *thugs-brel* 'busy' (hon.).

The above examples of *l*-final lexical items are confined to nouns; in verbs there is a second set of features in LT in which the vowel has its short alternative and the associated consonant is not alveolar and lateral but alveolar and fricative: [-ɪɹ- -ɛɹ- -øɹ- -yɹ-], a set of four vowels, restricted to fast tempo. I have given the fast-tempo forms below, at (i), and the other forms, for comparison, at (ii); they both have the past-tense particle *pa/ba* as second lexical item of the word:

sɪɹaɹe	kjɛɹaɹe	dʒɛɹaɹe	khøɹaɹe	phyɹajĩ
siːbəɹe	kjeːbəɹe	dʒeːbəɹe	khøɹaɹe	phyːbəjĩ
bsil-ba-red	*bskyel-ba-red*	*mjal-ba-red*	*'khol-ba-red*	*phul-ba-yin*

'(he) washed' (hon.), '(he) conveyed', '(he) met', '(it) boiled', 'I offered' (cf. also Sprigg 1954:326, 349, 569, 581, except that '[cɛːbəɹe]' is an error for [ceːbəɹe] or [kjeːbəɹe]).

The *l*-final type of lexical item appears in Chang and Shefts (1964:6) in the 'VV' section, as one would expect, together with those in -d:

lī̄ī.   ṭhee̠.   tshēē̄.   phe̠e̠.   ŋū̄ū̄.   ṭū̄ū̄.   šǭǭ:
til.   *drel.*   *tshal.*   *bal.*   *dngul.*   *sbrul.*   *zhol:*
'sesame seed. a mule. vegetable. wool. silver. snake. Sho'

Confusion of Spelling style with LT

Unlike Chang and Shefts (1964). Kitamura (1974:20) has a category /V̩1/ with an alternative /VV/ for which the phonetic realizations are [-V] alternating with [-V:]. one of the long vowels [i: e: ɛ: ǝ: u:]; e.g. [⁵⁵çe1]/[⁵⁵çe:] *shel* 'glass'. [¹³p'ɛ1]/[¹³p'ɛ:] *bal* 'wool': his *l*-final phonetic form I take to be Spelling-style. and the [V:]-final form to be LT.

Chang and Shefts 1964. Hari 1979. and Hu 1982 (in contrast with Kitamura 1974). all give only the long-vowel form. [V:]. phonemicized as /V̩V̩/. which I accept as the LT form. except that Hari (pp. 7-8) has transcribed two such lexical items. *gsol* 'feed. worship' and *bcol* 'keep it!'. as having a [V·ʔ] type of final. which she has phonemicized accordingly as of the /Vʔ/ type. and. in addition. *zhal* 'mouth' and *dngul* 'silver'. which she has classified phonemically as of the short-vowel type. /V̩/. in spite of her long-vowel ([V:]) phonetic transcription.

I have summarized the phonemic and phonetic variations in the following table:

C. and S.	VV	[-V:]	phe̠e̠, ŋū̄ū̄; 'wool. silver'; *bal. dngul*;
Kitamura	V̩1/VV	[-V̩1]/[-V:]	⁻she1/⁻shee. 'pāl/'pāā; 'glass. wool'; *shel. bal*
Hari	VV	[-V:]	/riih/ 'fall over' *ril*; /k̩ii/ 'middle' *dkyil*
	V̩	[-V:]	/'çɛh/ 'mouth' *zhal*; /'ŋy/ 'silver' *dngul*
	Vʔ		/'søʔ/ 'feed/worship' *gsol*; /tçøʔ/ 'keep it!' *bcol*

Hu   VV   tø:⁵⁵, tø:ɹ 'percer, transpercé':
                                            rtol, rdol.

As regards its status as a criterion of the Spelling style the word-final
lateral, [1], differs from both the [t] of (1) above and the [?]: the former of
those two distinguishes the Spelling style from the Reading style: and so,
too, does the latter with but few exceptions: but [1] occurs in word-final
position in the Reading style, e.g. se1*⁵⁵ in (1.i) above, and çe1*¹³¹/¹¹; so
it is only vis-à-vis LT that the final [l] serves as a criterion, if one consents to
overlook [tɪl] *til* 'sesame'.

3. -n: (voiced) dental nasal) [ṇ]
In the Spelling style a word-final dental nasal combines with the same five
qualities of front vowel as for a dental stop, a glottal stop, or an alveolar
lateral, three of them being lip-spread and two of them lip-rounded:

   [-ɪn -en -ɛn -øn -yn].

I have given below, as examples, the manner of spelling *chen* 'big' and *bdun*
'seven':

   [tɕha dɹɪŋbʊ tɕhen na tɕhen]
   [phʌʊ da çʏbgjʊ dyn na dyn]

A dental nasal also occurs in Reading style in word-final position, but
does not occur in that position in LT: the corresponding LT final is vocalic
and nasalized: and, at least in the two major grammatical classes of noun and
verb, it is also long. The qualities of these nasalized vowels are the same as
for the Spelling style except that there is no [-ẽ:]: so only four qualities are
distinguished phonetically,

                    [-ĩ: -ɛ̃: -ɔ̃: -ỹ:]:
   [lønd ʑẽ:]   *blon-chen* 'high minister of state'
   [thyd ʑĩ:]/[thødʑẽ:]   *dus-chen* 'festival'
   [tɕubdỹ:]   *bcu-bdun* 'seventeen'.

In most types of intraverbal junction, on the other hand, it is a nasal consonant that occurs finally for lexical items of this n-final type in LT; but its place of articulation is by no means confined to the dental. It may be (i) dental, (ii) bilabial, (iii) alveolar, (iv) palatal, or (v) velar, [n̪/m/n̠/ɲ/ŋ], according to the type of junction; e.g.

i	ii	iii	iv	v
[jøn̪d̪ɛ̃:	lømbʊ	dyn̠dɹa	dyɲdʐʊ	dyŋgjəl
yon-den	blon-po	bdun-phrag	bdun-cu	bdun-brgya
knowledge	minister	fortnight	seventy	seven hundred

In other types of intraverbal junction, however, the appropriate features for this type of lexical item are not consonantal but vocalic, combined with length and nasalization: (i) nasal-initial, (ii) lateral-initial, (iii) fricative-initial, and (iv) non-syllabic-vowel-initial; e.g.

i	ii	iii	iv	v
[dy̆:ɲi:	thy̆:lam	tɛ̃:ɹɔ: nã:	tɛ̃:s̃5	mɛ̃:j̃ø̃:]
bdun-gnyls	mthun-lam	bstan-rog gnang	bstan-song	sman-yon
two weeks	friendship	please show	showed	medical fee

From the comparison of the Spelling style with LT given in this section thus far it would appear that, in interverbal junction, there is a lack of balance between the two styles, that five types of lexical item are distinguished by vowel [ɪn en ɛn øn yn] for the Spelling style; but that only four types are distinguished for LT, by its finals [ĩ: ɛ̃: ø̃: ỹ:]. In fact, though, five types of lexical item are distinguished in LT too: the finals of the fifth type are either [-ɛ̃:] or [-ĩ:], alternating in accordance with vowel harmony: e.g. chen in dus-chen 'festival', [thy·dʐĩ:], a close-vowel-harmony word, as opposed to the open-vowel-harmony word [løɲdʐɛ̃:] blon-chen 'high minister of state.' Some speakers, however, treat dus-chen not as a close word but as an open word, by pronouncing it [thø·dʐɛ̃:].

The above examples are taken from the noun category: in verb forms the class of lexical item that alternates between [-ɛ-] and [-ɪ-] can be illustrated from the [lɛm-] and [lɪŋ-] forms for len in the following two words:

open-word vowel harmony: [lɛmbəɹe] *len-pa-red* '(he) took'
close-word vowel harmony: [lɪŋgɪɹeː] *len-gyl-red* '(he) will take'
(for a wider selection of examples cf. Sprigg 1954a:341).

In contrast with the differing qualities of vowel to be heard in these LT [lɛm-] and [lɪŋ-] phonetic forms of *len-*, together with [len] as the Spelling-style pronunciation, the vowel quality [ɛ] is constant for a word like *bstan*, with its orthographic final *-an*, and does not vary in accordance with differences in vowel harmony:

open word: [tɛmbəɹe] *bstan-pa-red* '(he) showed'
close word: [tɛŋgɪduː] *bstan-gyl-'dug* '(he) shows',

for which the Spelling-style pronunciation is [tɛn] (cf. also Sprigg 1954b: 571). Consequently, this class of lexical item, with a range of forms such as [tɛm-], [tɛŋ-], and [tɛn], and *-an* as its final in the orthography, must be strictly distinguished from the previous class, despite a phonetic overlap in vowel quality in open-word forms, [lɛm-] *len-* and [tɛm-] *bstan-*.

Also contrasting with the varying phonetic realizations of /len/ discussed above, i.e. [lɛm-], [lɪŋ-], and [len], the vowel [ɪ] is constant in the finals [ɪm-] and [ɪŋ-], and in the Spelling-style form with final [ɪn], for the lexical item *yin*; e.g.

open word: [jɪmbəɹe] *yin-pa-red* '(it) was probably'
close word: [jɪŋgɪɹeː] *yin-gyl-red* 'probably (it) will be'.

In Chang and Shefts (1964:7-8) all nine examples from their $\bar{\bar{V}}\bar{\bar{V}}$ category that have *-n* in the orthography, e.g. rȋȋ, šē̄ē̄, cē̄ē̄, tṳ̃ṳ̃, yȏȏ. *rln, gzhan* [sic], *spyan, bdun, g.yon*, have the nasalized vowel pronunciation when spoken in isolation on the accompanying tape-recording, except that I was unable to hear nasalization for two of them, rȋȋ and yȏȏ (this last being characterized, additionally, by ligamental phonation, glottal trill, and final glottal stop, [-ø̱ʔ]). They correspond, therefore, to the LT pronunciation rather than the Spelling-style pronunciation, except in one

respect: šēē (WT *gzhan*) 'otherwise' is symbolized as having the same vowel quality, [e], as -*en* in the Spelling-style: [en], though the final -*an* of the orthographic form attributed to it by Chang and Shefts (267) would require not [-ē:] but [-ɛ̃:] and the lower tone rather than the higher: šēē. The final that I hear on the tape-recording, however, is neither [-ē:] nor [-ɛ̃:] but [-ī:], the same as that for the final -*in*, as in their rīī 'the price paid' *rin*).

Hari's phonetic transcription of examples in her phonemic category /Vn/ agrees with Chang and Shefts's (pp. 79, 81) category in having a long nasalized syllabic vowel as its phonetic realization, e.g. /'pøn/ [pø̃:] 'leader' and /'men/ [mɛ̃:] 'medicine', *dpon*, *sman*; and so does Kitamura's (p. 23) category /Vɴ/, e.g. /⁻jiɴ/ [⁵⁵tɕī:] *gcin* 'urine', / ´riɴ/ [¹³ɹī:] *rin* 'price'. Where Kitamura differs from the other three is in his transcribing certain lexical items of this type with a glottal stop (and falling pitch), e.g. / ˋciɴ/ [⁵⁴tɕ'ī·ʔ] *phyin* 'went', / ˆciɴ/ [¹³²tɕ'ī·ʔ] *byin* 'gave'; some of the features correspond very closely to those I noted from the Chang and Shefts tape-recording for 'yöö' 'left' *g.yon*.

Since word-final [n] occurs, like [l], in Reading-style as well as in Spelling-style utterances, the status of [-n] is the same as that of [-l] at (2) above: it is a joint criterion of the Spelling and Reading styles versus LT.

4. -s: (voiceless) glottal stop [ʔ ⁻], or long syllabic front vowel [V:]

As a criterion of the Spelling style a glottal stop as a pronunciation of -*s* differs from a glottal stop as a pronunciation of -*d* as an alternative to a voiceless dental stop: it does not occur in LT with an emphatic function in certain lexical items (cf. (1) above). A glottal stop does occur, though rarely, in *s*-final lexical items in Reading-style utterances, e.g. [laxsøʔ] *lag-bzos* 'hand-made'.

As a pronunciation of -*s* the glottal stop combines with the same set of short front vowels as for -*d* and -*l*, *viz.* [ɪʔ eʔ ɛʔ øʔ yʔ] (cf. (1) and (2) above), as the much more common alternative to a long front vowel [ɪ: e: ɛ: ø: y:], though, strangely, the latter was the alternative preferred by my informant. It is possible that a change is in progress from [-Vʔ] to [-V:] in

the pronunciation of finals in s, perhaps as a push chain effect of the possible change of [-t] to [-ʔ] referred to in (1) above for -d. I have given both the alternative sets of phonetic features in the following two examples, for spelling *chos* 'religion' and '*bras* 'rice':

[tɕha naɔ tɕhø: sa: tɕhøʔ/tɕhø:]
[ʌumba ɹata ndɹɑ:/ndɹɛ: sa: ndɹɛʔ/ndɹɛ:].

The Spelling style, in its process of naming the various orthographic parts of s-final lexical items, allows alternatives such as [ndɹɑ:] and [ndɹɛ:] shown above, the former being the preferred form.

The corresponding range of LT vowels is the same five long front vowels [i: e: ɛ: ø: y:] as for *d*-final and *l*-final lexical items in (1) and (2) above; e.g. *bris, tshes, 'bras, chos, lus*: 'write, date, rice, religion, body'.

Confusion of Spelling style with LT

Chang and Shefts 1964's 'geminate vowel' ('VV') section (6-7) groups its lexical items spelt with final s together with lexical items spelt with -*d* and -*l*; but I hear all four of these s-final examples on the accompanying tape-recording not with the expected long-vowel final [V:], but with a combination of short vowel and glottal stop [Vʔ]:

VV [-Vʔ]   tshə̄ə̀, sɛ̄ɛ̀, ḍɛ̀ɛ̀, pō̄ö̀
           tshes, sras, 'bras, spos   'date, son (hon.), rice, incense stick'

The pronunciation that I heard from the Chang and Shefts tape-recording is of the type symbolized by Hu 1982. Hu (p. 20) includes s-final examples (corresponding to those in Chang and Shefts) in a category 'VG', 'finales fermées par -p, -k, -ʔ', together with some lexical items having final *d*:

(Hu)   VG [-Vʔ]   tʂiʔ131, tɛʔ53, ɕɛʔ131; 'avoir écrit, avoir vu, chant': *bris, bltas, gzhas*

My two remaining sources, Kitamura 1974 and Hari 1979, have both allotted s-final lexical items to three categories, (i) short vowel with final

glottal stop [-V ?], like the examples from Chang and Shefts and from Hu above, (ii) long vowel [-V:], and (iii) both of the foregoing as alternatives [-V·?]/[-V·] or [-V:]; e.g.

VV [-V·?]	˙madää [¹¹ma⁵⁴tɛ·?], ˙hmatää [¹¹m̥a⁵⁴t·ɛ·?], ˙nyee [⁵⁴ɲe·?], ˙hnyee [⁵⁴ɲ̊e·?] 'did not see, did not go, tan (perf.), be tanned (perf.)'; *ma-bltas, ma-thas, mnyes, mnyes* (Kitamura 1974:27); /'tɕhø?/ ['tɕhø·?⁻] 'religion' (Hari 43) *chos*; /tɛh?/ [ᶯɖɛ·?⁻] 'rice' (Hari 76) '*bras*; /sɛ?/ [sɛ·?] 'son (hon.)' (Hari 77) *sras*;
VV [-V:]	˙sää dang~daɴ [⁵⁴sɛ: ³³taŋ~tã·] ('with a son' *sras dang* (Kitamura 1974:29);
V [-V:]	/ɕɛh/[ɕɛ:], /lyh/ [ly:] 'song, body' (Hari 73) *gzhas, lus*
VV [-V:]	/'ŋii/ [ŋi:] 'two' (Hari 45) *gnyis*; /'ɕeeh/ [ɕe:] 'take (hon.)' (Hari 83) *bzhes*;
VV [-V·?]/[-V:]	^mőő [³³m̥ə·?~³³¹m̥ə:] 'by her'; ˙mőő [⁵⁴mə·?~⁵⁴mə:] 'plough (perf.)' (Kitamura 4); *mos, rmos*;
V [-V·?]/[-V·]	[mø·?/mø·] 'plough' (Hari 13) *rmos*; /'ʈhih?/ [ʈʰi·?/tʰi·? [sic, ʈ] 'write' (Hari 14) *bris*.

My own view of this conflict between a consonant-final type of phonetic form and a vowel-final type is the same as it was for the alternative realizations of the *d*-final lexical items at (1) above, i.e., that the stop-final alternative is unambiguously a Spelling-style pronunciation, while the long-vowel-final alternative is ambiguous: it is necessary to appeal to extra-phonetic criteria in order to determine whether a given example is Spelling-style, Reading-style, or LT Speaking-style. Situational factors such as those adduced in Sprigg 1968 (15-18) will decide.

5. -ng(s): (voiced) velar nasal [ŋ]

For *-ng(s)* in the Spelling style a word-final velar nasal combines with a different set of vowel qualities from those met with hitherto in sections (1)-

(4): two front spread vowels, two rounded back vowels, and an open vowel that is either front or back in association with features of the syllable initial, palatal or non-palatal:

[-ɪŋ -ɛŋ ʊŋ ʋŋ -aŋ/-ɑŋ].

as, for example, in spelling *chung* 'small' and *bong(-bu)* 'donkey'.

[tɕha ɕɤbgjʊ tɕhʊŋ ŋɑ tɕhʊŋ]
[pha naɹʊ phʋŋ ŋɑ phʋŋ]

In these and other such lexical items in LT the word-final sound is not a consonant but a nasalized vowel, with one of the following qualities:

[-ĩ: -ɛ̃: -ũ: -õ: -ɑ̃:].

e.g. [tɕhʊŋdʐũ:] *chung-chung* 'small' (but perhaps more commonly pronounced [tɕhyŋdʐỹ:]), [khɑ̃:] *gangs* 'snow'.

Consequently, word-final velar nasality [ŋ] is confined to the Spelling style, and can be cited as a word-final phonetic criterion of that style vis-à-vis LT, while the set of nasalized vowels [-ĩ: -ɛ̃: -ũ: -õ: -ɑ̃:] that can equally be regarded as a word-final criterion of LT ([-ŋ] also occurs in the Reading style, e.g. 'tɕ'uŋ¹³¹/¹¹· (above 1.1) *byung*, thus making [-ŋ] a joint criterion of those two styles).

In intraverbal junction, on the other hand, a velar nasal does occur in LT, in which case it is associated with one of the range of short vowels [ɪ ɛ ʊ ʋ a ʌ] in most sub-categories of junction, as in the first syllable of [tɕhʊŋdʐũ:] *chung-chung* 'small', [khɑŋdʐɛ̃: dʐø:ŋə] *gangs-chen mdzod-lnga* 'Kinchinjunga', [tɕhʊŋə] *chung-ba* 'smaller', [khʌŋ(d)zu:] *gangs-tshub* 'snowstorm', [khaŋbe:] *gangs-'bebs* 'causing snowfall'. It is important to note that the nasality retains its velar location in these -ng(s) lexical items, e.g. [-ŋb-] (fast tempo, [-ŋg-]) as in *ring-po* 'long', but for n-final lexical items cf. [-mb-] as in *rin-po che* 'Reverend', and the full range of phonetic variants given in (3) above.

Reduplicated lexical items such as [tɕhʊŋdʐũ:] 'small' and [thʊŋdũ:] *thung-thung* 'short' (commonly also [thyndỹ:]) illustrate the

difference between intraverbal junction and interverbal junction particularly well, and highlight the advantage that intraverbal junction enjoys over interverbal junction in the phonological analysis of LT.

As with *n*-final lexical items, in (3) above, there are also types of intraverbal junction in which -*ng(s)* is pronounced not with velar nasality but with vowel length and nasalization, e.g. (fricative-initial sub-type) [-ŭ:ɕ-] *chung-shos* 'smallest', [-ᾱ:ɹ-] *gangs-ri* 'snow-mountain'; (nasal-initial sub-type) [-ᾱ:m-] *gnang-mus* 'in the act of granting'.

Confusion of Spelling style with LT

Chang and Shefts 1964, as one would expect, have included a number of words spelt with -*ng(s)* in their section 'V̄V̄'; but they also have a section 'Vŋ' in competition with 'V̄V̄' for words with this spelling, e.g.

V̄V̄: chā̱ā̱, šā̱ā̱, chā̱ā̱, sā̱ā̱: barley beer, nose (p.), north, copper; *chang, shangs, byang, zangs* (7-8);

Vŋ: šī̱ŋ, tsi̱ŋ, yā̱ŋ, tu̱ŋ: wood, raft, vowel, spear (8-9); *shing, gzings, dbyangs, mdung.*

I see no need in LT for this division; and I attribute it to confusion of the Spelling style and LT, the former having [-Vŋ] and the latter having [-V̄:]. In fact, the confusion seems to go beyond this division into 'V̄V̄' and 'Vŋ' to the individual members of these two classes: from the accompanying tape-recording I have heard some of the examples of 'V̄V̄' pronounced with final [ŋ], which I take to be the Spelling-style pronunciation.

I have summarized these variations in the following table, along with the analyses to be found in my other three sources; it will be seen that their treatment of the -*ng(s)* examples that they have in common is by no means uniform:

C. and S.	Vŋ	[-ŋ]	*shing, dbyangs, rdzings*: 'wood, vowel, raft' (8-9)
	V̄V̄	[-ŋ]	*shangs, gong, zangs*; 'nose (p.), price, copper' (7-8);

		[-ṽ:]	chang, khongs, byang, bong(s): 'beer, section, north, amount'; (7-8)
Kitamura	ng	[-ŋ]	shing, dbyangs, rdzing; 'wood, tone, raft' (22);
		[-ŋ]/[-ṽ·?]	brdungs, longs' 'beat, get up (imp.)'; (23)
	ng/N	[-ŋ]/[-ṽ:]	chang, byang; 'beer, north' (23)
		[-ŋ]/[-ṽ·?]	shangs; 'nose' (23)
Hari	/ŋ/	[-ŋ]	shangs, zangs, byang; 'nose (hon.), copper, north' (80)
		[-ṽ:]	shing, rdzings; 'wood, raft' (81, 79/200)
Hu	VN	[-ṽ]	btang, gong; 'envoyer, prix' (21)

6. -g(s): voiceless velar stop ([k ⁻])

The position of velar-stop finals in the Spelling style is similar, in one respect, to that of the glottal-stop finals for -d at (1) above: neither of them is completely confined to the Spelling style. The occurrence of the velar-stop finals in LT, though, has nothing to do with stylistic factors such as emphasis; and there is the further difference that there is only a handful of lexical items in which a voiceless velar stop occurs. Consequently it is very nearly the case that a word-final voiceless velar stop can be cited as a criterion of the Spelling style. I have noted only three examples of [k]-final words in LT: [tɕɪk] gcig 'one', [tɕɪk] (low-tone) cig/zhig/shig 'a: an', and [ɕʊk] shugs 'power'; and in fact I am doubtful whether this last should be included in this threesome of exceptions. This is because it is possible that the final [k] of shugs is not word-final; in my own material shugs occurs only in association with the following adjective [tɕhɪmbʊ] chen-po 'great'; and this limitation further suggests that this noun-plus-adjective combination should be regarded as a single word, [ɕʊktɕhɪmbʊ] 'powerful', comprising three syllables. If so, the junction features [-ktɕh-] would have to be treated as medial features, in intraverbal junction; and my examples of word-final [k] in LT must needs be reduced from three to two: but to them could be added four more words from Chang and Shefts 1964: šuq 'strength' (already discussed earlier in this paragraph), peq 'bag' 'beg,

nāq 'powdered glass (for kite fighting)' gnag. and mōq 'a mug' mʌg (8), the last three of which I suspect of being loanwords: they are not to be found in Jäschke 1881/1934.

In the Spelling style the range of vowels with which [k] can combine comprises two front spread, two back rounded, and one open quality:

[ɪ ɛ ɒ ʊ a/ɑ];

e.g. the manner of spelling dmag 'battle' and yig 'letter' is as follows:

|thʌʊ mɑ: khɑ: mɑk|
|ja kjɪkʊ jɪk khɑ: jɪk|

The corresponding vowels for LT in word-final position are the following long-vowel set, all of them being without trace of a closing velar consonant, at least in my material:

[i: e: ɔ:/o: u: a:/ɑ:].

As though in compensation for the great rarity of the velar stop in word-final position (interverbal junction) in LT there is a wealth of examples of final velar consonants in medial position (intraverbal junction) in this dialect, both voiced and voiceless: they are realized as stop, plosive, fricative, or nasal according to type of junction, e.g. for yi(g):

|jik⁻(t)shã:| jɪgzã:	jɪgɪ	jɪɣlɛ̃:	jɪŋdʌʊ]
yig-tshang	yig-tshang	yi-ge	yig-lan	yig-'bru
office	office	letter	written answer	single letter
(slow tempo)	(fast tempo)			

These intraverbal-junction features, [ɪk⁻/g/ɣ/ŋ-], are complementary in distribution with the final long vowel [-i:] of interverbal junction, e.g. [lʌmji:] lam-yig 'passport', [tɹū·ji:] drung-yig 'clerk'.

The above array of velar final consonants [k⁻ k g ɣ ŋ], all of them relatable to -g, shows how gratifying for the phonologist and the historical

linguist intraverbal (or medial) junction is in LT, and how disappointing interverbal (or final) junction is in comparison.

In addition to this type of combination comprising a short vowel, [ɪ ɛ a/ɑ ʋ ʊ], and velar consonant there are types of intraverbal junction that form a second category, in which the vowel is one of the corresponding long vowels, [iː eː aː/ɑː/ʌː ɔː/oː uː], without a velar consonant. The four types of intraverbal junction in this category are those in which the initial of the second lexical item is nasal, lateral, fricative, or a non-syllabic vowel, [m n ɲ ŋ]. [l]. [ɹ s ɕ], or [j] (cf. also -ng(s) at (5) above), e.g.

	mʌːmɪ]	dmag-mi (slow tempo: |mʌ ŋmɪ|)	soldier
|jaːlØː]	yag-los	goodness
|siːɹoː nãː]	gzigs-rog gnang	please look/buy
|lɔːsɔ̃ː]	klogs-song	(he) read
|ɕuːjØː]	bzhugs-yod	(he) is at home.

A similar combination, with the long vowel followed by a voiced velar plosive, [-iː/aː/ɔː/uːg-], serves for the junction of two lexical items the former of which is g-final and the latter of which is velar-initial. e.g.

[jiːgʋoː	khaːgaː	mɑːgaː	lɔːgãː	dɹuːgeː]
yig-kog	khag-khag	dmag-sgar	glog-khang	'brug-skad
envelope	different	garrison	power-house	thunder

Although velarity is here symbolized twice, both in the final of the first lexical item and in the initial of the second one, velarity is limited phonetically to a single plosive occurrence.

In the verbal phrase there is a third category of intraverbal junction, combining the velar consonant of the first category, a voiced velar plosive, with the long vowels of the second category. These are past-tense forms containing the particle pa/ba, [-iːg- -aːg- -ɑːg- -ɔːg- -uːg-], and are further restricted to fast-tempo utterances, e.g.:

[siːgaɹe	ɕaːgaɹe	tɹɑːgaɹe	lɔːgaɹe	ɕuːgaɹe]
gzigs-pa-red	bzhag-pa-red	sreg-pa-red	klog-pa-red	bzhugs-pa-red
you bought	he placed	he burned	he read	you stayed

(cf. also Sprigg 1954:325, 327, 341, 349, 570, 571).

Reading style

The voiceless-velar-stop pronunciation also occurs in word-final position in Reading-style utterances, especially, perhaps, in somewhat more unusual words such as [pʌːjɪk] *par-yig* 'type sort' (in printing). Chao's transcription of *Love Songs* contains such examples of word-final [k] as

ɕɑɹr⁵⁵tɕ'ok⁴⁴ *shar-phyogs* 'east side'
p'ø(ə)n⁴⁴tɕok¹¹ *phon-lcog* 'bundles'
me¹¹tok⁴⁴ *me-tog* 'flower' (7-1) (Yu and Jaw 1930:44, 46, 56).

In the Spelling-style [ʔ ̚] is a common phonetic interpretation of orthographic -*s* (e.g. in 'os, bzhes, and dbus), or an alternative phonetic interpretation of -*d*; but never a phonetic interpretation of -*g*, these two last being regularly interpreted phonetically, by my informant R at least, as [t ̚] and [k ̚] respectively; but in the Reading style I have noted a word-final glottal stop [ʔ ̚] as an occasional phonetic interpretation of -*s*, -*d*, and -*g* alike, e.g. [laxsøʔ ̚] *lag-bzos* 'handmade', [jɛʔ] *brgyad* 'eight', [thɒʔ] *thog* 'top', though the more frequent phonetic interpretation of all three in the Reading style is length of vowel [ː].

I have already mentioned the handful of examples in Chang and Shefts (1964) in which a word-final *g* is pronounced as a voiceless velar stop, [k ̚], e.g. cīq 'one', mǫq, 'mug'; such words are, accordingly, put in their 'Vq' section (8); their other examples that have final *g(s)* in spelling are all placed in the 'geminate vowel' or 'VV' section, e.g.:

mīì sị̀ì šáà saà thūù thụ̀ù th55 pǫ̀ò
mig, gzig, shag, zhag, thugs, dug, thog, 'bog
'eye, leopard, dwelling place, oily film on a liquid, mind, poison, roof, square of cloth or wrapping a bundle'.

From the accompanying tape-recording I have observed that three of these seven 'VV' examples have not the expected long vowel but a short vowel and glottal stop, [-aʔ   -ɒʔ]; and two others, mīì and sị̀ì, have both glottal stop and glottal constriction of the sort termed 'ligamental phonation' in Catford (1964:32-3; cf. also Sprigg 1979:2, 3, 9, 15-16). All three features,

glottal stop. shortness of vowel. and ligamental phonation. I suspect of being due to an uneasy awareness, on the part of the speaker, of the pronunciation required by the Spelling style, supported, perhaps, by the Reading style. I have given these examples below in the form of a table, with comparable examples from Kitamura 1974, Hari 1979, and Hu 1982:

C. and S.	VV	[-V:]	*thugs, dug;* 'mind, poison' (7)
		[-V?]	*zhag, thog;* 'oily film, roof (6, 7)
		[-V́?]	*mig, gzig;* 'eye, leopard' (6)
	Vq	[-Vk]	*gcig, shugs, 'beg;* 'one, strength, bag' (8)
Kitamura	/Vg/. /VV/	[-Vk]/[-V·?]	*gcig, gzig, thog, shugs;* 'one, leopard, roof, strength' (19)
	/Vg/	[-Vk]	*tsheg, 'beg;* 'point, bag' (19)
Hari	/Vk/	[-V·?]/[-Vk]	*'brug, mig, gcig;* 'Bhutan, eye, one' (20, 20, 32)
		[-Vk]/[-V·?]/[-V·]	*thugs, brag;* 'mind, rock' (13)
	/V?/	[-V·?]	*gzig, 'bog, zhag, thog;* 'leopard, cloth for carrying, oily film, roof'(78, 31, 41, 41)
Hu	VG	[-V?]	*bkag, 'bag;* 'empêcher, masque' (20)

7. -r: voiced alveolar roll (trill) [r][8]

LT speakers seem to have no difficulty in pronouncing a tongue-tip rolled (trilled) consonant in word-final position in the Spelling style even though no such sound occurs in their spoken dialect. This consonant combines with the same range of vowels. [ɪ ɛ a/ɑ ɒ ʊ], as for words with final -ng(s) or -g(s). The words *bcar* 'come (respectful)' and *'byor* 'obtain', for example, are spelt as:

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[8] With the front vowels [ɪ] and [ɛ] this alveolar is usually fricative [ɹ].

[phʌʊ tɕɑː ɹɑ tɕar]

[ʌʊ mbɑ jata ɲdʑa naɹʊ ɲdʑɔr raɲdʑɔr][9]

A very similar consonant to the word-final roll [r] shown above, a voiced alveolar tap [ɾ], does occur in LT; but it is to be heard only in a handful of lexical items, e.g. [paɾ] *par* 'print', [taɾ] *tar* 'telegram', [khʊɾ] *gur* 'tent'. The second of these is a loan-word from Hindustani; but the other two seem to be original (on *par* cf. Simon:1962, 72-4, 80). Within words, too, the final [ɾ] of the morpheme *par* is to be heard in such compounds as *par-chas* [paɾtɕɛː] (in fast tempo, [paɾdʑɛː]) 'camera' and *par-khang* [paɾgãː] 'printing house', and sometimes in word-final position in disyllables, such as [kʊbaɾ] *sku-par* 'photograph (hon.)', though the corresponding long vowel [-ɑː] is also to be heard in this word; and similarly with [tɕagbaː] *lcags-par* 'type press' and [tshagbaː] *tshag-par* 'newspaper'.

Chang and Shefts (1964) gives *pār* and eight other monosyllables as examples of their category 'Vr', one of which, *kir* 'gear (of a car)', certainly looks as though it should be a loanword from English; and not all of the remaining seven are to be found in Jäschke 1881/1934.

Apart from these few exceptions in [ɾ], the appropriate LT word-final features are vocalic, the long-vowel set [iː eː ɑː ɔː/oː uː]; e.g. [lɔ saː] *lo-gsar* 'New Year' (also [lø saː]), [ɕiptɕ(h)uː] *bzhes-phyur* 'cheese (hon.)'.

In most sub-categories of intraverbal junction the final of lexical items in *r* such as *gsar* and *phyur* is vocalic, the range of vowels being:

[iː eː ɑː/ʌː ɔː/oː uː].

e.g.: [saːbə] *gsar-pa* 'new', [sʌːŋgjuː] *gsar-'gyur* 'news'; but there is one sub-category in which the alveolar fricative [ɹ] is to be heard, associated with a short vowel of one of the following qualities:

[ɪ ɛ a ʊ ʊ].

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[9] A somewhat closer vowel, [ɔ] rather than [ʊ], is to be heard in lexical items having a palatal initial, likewise a more front vowel, [a] rather than [ɑ].

This is the sub-category in which the following lexical item begins with a vowel. e.g. (noun) [tɕhuɹə] phyur-ra 'cheese', (adjective) [saɹə] gsar-ba 'newer'.

These examples are from the noun and adjective categories; with verb forms, a stylistic factor, fast tempo, must also be taken into account, just as with verbs in -l and -g(s) at (2) and (6) above, e.g. (i. *fast tempo; ii. otherwise*):

|phiɹaɹe	tɛɹaɹe	tɕaɹajĩ	dzɒɹaɹe	gjuɹaɹe]
|phiːbəɹe	teːbəɹe	tɕaːbəjĩ	dzɔːbəɹe	gjuːbəɹe]
phur-ba-red	ster-ba-red	bcar-ba-yin	'byor-ba-red	bsgyur-ba-red
it flew	he gave	I visited	he received	he changed

(cf. also Sprigg 1954:325, 337, 349, 569, 570, except that [tɛːbəɹe] (569) should read [teːbəɹe]).

The first and second of these five types, in [-ɹɹa-]/[-ɹːbə-] and [-ɛɹa-]/[-eːbə-], overlap l-final forms such as [sɹɹaɹe]/[siːbəɹe] bsil-ba-red '(he) washed' and [kjɛɹaɹe]/[kjeːbəɹe] bskyel-ba-red '(he) conveyed' at (2) above; whatever the type of junction may be, there are no features to distinguish the l-final category from the r-final category for those two types, with the front vowels [ɹ]/[iː] and [ɛ]/[eː].

Apart from the nine examples of 'Vr' referred to above, all of them nouns, Chang and Shefts (1964) assigns lexical items that have final r in their spelling to the 'VV' category, e.g. sēē, qhụụ; gser, gur, 'gold, tent'. These final long vowels are in accordance with LT usage, except, in my material, for [khuɾ] gur 'tent'.[10]

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[10] In my material, however, one of the compounds of gser has final [-ɛɾ] in intraverbal junction rather than [-eː]: gser-chas; another, gser-chu, has the close-vowel-harmony equivalent, [-ɹɾ], while a third, gser-zangs, has [-ɛɾ] and [-eː] as alternatives. However, most compounds, (e.g. gser-bzo-ba, gser-dngul, gser-khri, gser-phye, gser-mdog, gser-skud, gser-po) have a final vowel, [-eː] or [-iː] according to open or close vowel harmony. The reason for this variation between [-Vː] and [-Vɾ] I take to be stylistic; for this lexical item it builds a phonetic bridge between [-eː]/[-iː] and [-ɛɾ]/[-ɹɾ].

Confusion of Spelling style with LT

I have nothing to add to my remarks above on Chang and Shefts' (1964) two categories 'VV' and 'Vr': so I am bound to agree when Kitamura, Hari, and Hu treat such [r]-final examples as '-bar' print *par*, '-der' treasure *gter* (Kitamura 1974:19) and 'tar¬' télégramme *tar* (Hu 1982:19) as members of a very small body of exceptions; but where Kitamura and Hari give alternatives for the same lexical item, one with a final consonant and one with a final vowel, I take the former to be Spelling-style and the latter to be LT. I have put examples of these categories in the form of a table:

C. and S.	Vr	[-Vr]	pār, tēr, kịr; 'photo, something hidden underground, gear' (9); *par, gter, 'gyir*
	VV	[-V:]	*gser, shar;* 'gold, east' (6)
Kitamura	Vr	[-Vɹ]	¯bar, ¯der, ´gyir; 'photo, something hidden underground, gear' (19); *par, gter, 'gyir*
	Vr/VV	[-Vɹ]/[-V:]	*phar, mar, tshur* (19-20)
Hari	Vr	[-Vr]/[-V:]	*'dar, sgyur;* 'tremble' (82), 'change' (83)
	VV	[-V:]	*gser, mar;* 'gold' (116), 'butter' (117)
Hu	Vr	[-Vr]	*tar, 'dar;* 'télégramme, trembler' (19)
	VV	[-V:]	*bcar, yar;* 'visiter, vers le haut' (19)

Reading style: joint criterion

The Reading-style passage (i) from *Love Songs*, in section (i), shows [r] as occurring finally in the lexical items *shar-* and *dkar-*; and passage (ii) shows it in the lexical items *-r* (dative) of *mdun-mar* and *nor-*, in both intraverbal and interverbal (word-final) junction. Vis-à-vis LT, therefore, [r] serves the Spelling and the Reading style as a joint criterion.

8. -i/e/a/o/u, -a': (voiced) syllabic vowel [V (:)]

The table at the beginning of (II.B) shows a set of five long vowels. [i: e: a: ɔ: u:], for these five final-vowel symbols as they are pronounced in the Spelling style, with -a' in complementary distribution orthographically with -a. The length (and matching vowel qualities) are due to the final position of the lexical item spelt with one of these six symbols in the Spelling-style utterance; e.g. for spelling *lce* 'tongue' and *mda'* 'arrow',

[1 adʐapta tɕa dɹɪŋbʊ tɕe:]
[mʌʊ ndɑ: ɑ: ndɑ:]

In LT, on the other hand, lexical items spelt with a final vowel or ' seldom occur finally in a sentence; so its vowel set has shortness as a feature together with the range of qualities [ɪ ɛ a ɔ ʊ].

9. -b(s): voiceless bilabial stop [p ˺]

With one exception the range of vowels that combines with [-p˺] in the Spelling style is the same as for [-k˺]: [ɪ ɛ ɒ ʊ]. The type of vowel that differs is the half-close spread back vowel, as in [-ɣp], as against the open back/front spread type, as in [-ak]/[-ɑk]. This fourth type of stop final can be illustrated from the method of spelling *khab* 'needle' and *leb* 'flat':

[khɑ: pha khɣp˺]
[1a (n)dɹɪŋbʊ lɛp˺ pha lɛp˺]

The status of word-final bilabial stops in the Spelling style vis-à-vis LT pronunciation is markedly different from that described above for dental, glottal, and velar stops: not only are bilabial stops common to both these styles of Tibetan utterance; but they are also not uncommon in LT, certainly much more frequent than word-final velar stops, especially when they are associated with one of the more open types of back vowel, as in [-ɣp] and [-ɒp].

In LT, lexical items in -ab(s) seem invariably to have the final-stop pronunciation, and combined with the short vowel [ɣ], e.g. [jɣp] 'father'

(hon.) *yab*, [gʒeːgɤp] 'capital' *rgyal-khab*; and so, usually, does *-ob(s)*, e.g. [tʊp] 'vigour' *stobs*, [kalʊp] 'advice' *bka'-slob* (also [kʌlɤp]); but the other three types of final, *-eb(s)*, *-ib(s)*, and *-ub(s)*, not uncommonly have their alternative pronunciation, a word-final long vowel like the corresponding types of *g(s)*-final lexical items exemplified in (6) above: [eː iː uː]; likewise *-ob(s)* [-ɔː / -oː] in some words, e.g. (the lower alternative is a slow-tempo form):

-ib(s)	*-eb(s)*	*-ub(s)*
[tʒʊçiː] *gro-zhib* 'flour'	[pheː] *phebs* 'come!'	[lʌɣçuː] *lag-shubs* 'glove'
[tʒʊçɪp] 'id.'	[tɕhabeː] *phyag-phebs* 'coming (hon.)'	[lʌkçuː] 'id.'

while [kʊdoː] in the phrase *sku-stobs nyams-pa* 'impotent (hon.)' illustrates [-oː] as a long-vowel alternative to [-ʊp] for *-ob(s)*.

The alternation in word-final position between short vowel associated with final stop, on the one hand, and final long vowel on the other, i.e. [ɪp ɛp ʊp] versus [iː eː uː], seems to vary with the individual lexical item, and may depend on how commonly used that lexical item is. The morpheme *phebs*, for example, which occurs rather frequently, seems always to have the long-vowel alternative [-eː] in word-final position, as in the two examples in the preceding paragraph; but the lexical item [dɛp] (or [thɛp]) *deb* 'book (foreign style)', on the other hand, invariably seems to be pronounced with the short-vowel-plus-consonant combination, not only in the monosyllable but also when final in a disyllable, such as [tɕhadɪp] *phyag-deb* '(foreign-style) book (hon.)'.

In intraverbal junction (medially) it is usual for *b(s)*-final lexical items, even including *phebs* in noun words, to have final bilabiality ([p b β m]) (cf. also [k g ɣ ŋ] for *g(s)*-final lexical items at (6) above), e.g. (disyllabic nouns except for the verb-and-particle word *chibs-song*):

[-εpt(h)-	-ɪbdɹ-	-εb/βl-[11]	-εmd-]
phebs-thag	phebs-sgrig	phebs-lam	phebs-dogs kha-po
distance (hon.)	ready to receive (hon.)	road (hon.)	likely to come (hon.)

[-ɪps-	-εbdɹ-	-ɪβgʃ-	-εb-]
chibs-song	chibs-drel	chibs-bsgyur	chibs-dpon
rode (hon.)	mule (hon.)	going (high hon.)	head groom (hon.)

[-εmdɹ-	-ɪ(m)m-]
chibs-'gros	chibs-rmed
amble (hon.)	crupper (hon.)

In verb-and-particle words, on the other hand, *phebs* has its vowel-final alternative, [e:] or [i:] according to vowel harmony, e.g.: [-e:ɹ- -e:ʃ- -e:b- -e:s- -e:ɕ- -i:g-], as in *phebs-rog gnang, phebs-yong, phebs-pa-red, phebs-song, phebs-shag, phebs-kyi-red*: 'please come, would come, came, have come, will come'.

Reduplicated forms, such as [lεblε:] *leb-leb* 'flat', [ɕɪpɕi:] *zhib-zhib* 'fine; minute', and [sʊpsɔ:] *sob-sob* 'soft', are especially helpful in displaying the advantages that intraverbal junction enjoys over interverbal junction in supporting bilabiality as a feature of b-final lexical items in the phonological and lexical analysis of LT.

All the nine *b(s)*-final lexical items given in the introductory section of Chang and Shefts 1964 have been put into its 'Vp' section, e.g. thεp 'book' (*deb*), šʌp 'foot (p.)' *zhabs*, šʌp 'case, sheath' *shubs*, thʌp 'stove' *thab*; but its Appendix contains a number of vowel-final forms, such as phḕè, and phīī-/phēē- (*phebs*) in phīīqùu *phebs-sgug* and phēēlā̄m *phebs-lam*, as against phīpt̪ū *phebs-gru* and phēpt̄ā̀ *phebs-thag*, lèè *slebs*, and, especially, šīpšīì *shib-shib*.

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[11] Also sometimes pronounced [phe:laɐ] with the corresponding long-vowel alternative finally in the first lexical item; possibly this form is used because this word occurs very commonly in speech.

In terms of lexical items, therefore, the labial place is easily the most commonly used of the three places of articulation for stops that occur in word-final position in LT; but it is not so well represented in association with front vowels, in [-ɪp] and [-ɛp], or with closish back vowels, as in [-ʊp], as it is with half-close and with open back vowels, in [-ɣp] and [-ɒp]. This is because *-ib(s)*, *-eb(s)*, and *-ub(s)* are commonly interpreted phonetically by their long-vowel alternatives [-i: -e: -u:], and *-ob(s)* less commonly by [-ɔ:/o:].

10. -m(s): (voiced) labial nasality [m]

Like the labial-stop type of word-final the labial-nasal type occurs in both styles of utterance, the Spelling style and LT, and is common. In fact it is more frequent than its corresponding stop type, and occurs in association with all five types of vowel equally:

[-ɪm -ɛm -a/ɑm -ɒm -ʊm-], though [-ɛm] is rare.

As examples of this type of final in the Spelling style I give *gtam* 'story' and *gzim* 'sleep (hon.)':

[khʌʊ tɑ: mɒ tam]
[khʌʊ sa kjɪkʊ sɪm mɑ sɪm]

In LT, in intraverbal junction, the number of associated vowels is greater by one, [ʌ], than the five given in the preceding paragraph, in order to meet the needs of vowel harmony.

In LT, too, it is final labial nasality that characterizes morphemes like *lam*, as [-ɑm], in word-final position, e.g. in such words as *phebs-lam* 'road (hon.)' and *lcags-lam* 'railroad'. Labial nasality is also usual medially, e.g. [-ɑmz-] in *lam-'dzom* 'road junction', or [-ʌmj-] in *lam-yig* 'passport'; but, exceptionally, in *lam-ka* 'road', the nasal is more commonly velar, [-ɑŋg-], in this velar-junction context, than bilabial [-ɑmg-], especially in fast-tempo utterances. In fast-tempo, a nasalized long vowel is occasionally to be heard as an alternative to the combination of short vowel with labial-nasal consonant, e.g. [tɕhamdʐɑ̃:lə] rather than [tɕhamdʐamlə] 'cham-'chamla 'for a walk', where a final nasalized-vowel articulation matches the lateral initial of the third morpheme in this type of junction, though a consonantal

articulation (nasal) matches the affricate initial in the second morpheme [-amdʐ-].

Since a bilabial nasal is common to both Spelling style and LT in word-final position, in association with all the appropriate vowels equally, bilabial nasality [m] cannot be cited as a criterion of the Spelling style. I wish to stress this because it is the only final consonant of which this is true, though, as I have shown in (9) above, the bilabial stop approaches the diacritical role of the bilabial nasal very closely in this respect.

I find support for this diacritical role of [m] not only in my own material but also in Chang and Shefts (1964:10), where all seventeen of their examples that correspond to -m(s) of Tibetan orthography are symbolized with '-m': e.g. ʈhī m̄. r ī m̄. nā m̄. c e̱ m̱; khrims. rims. gnam. 'jem: 'law. epidemic. sky. jam'. This is also true for the examples they give in the Appendix: there are cases there of m-final lexical items with a final nasalized long-vowel pronunciation (V̄ V̄) to match the oral long-vowel pronunciation (V V) that I was able to exemplify from some b(s)-final lexical items in (9) above, such as l e̋ e̊. phē e̊. and š ī p š ī l (slebs. phebs. shib-shib).

III. Citation-form phonetic analysis versus sentence phonetic analysis

Mindful of my own early misadventures in the phonetic and phonological analysis of LT, in which I was quite often led astray by phonetic forms that I had accepted as *bona fide* LT but which later turned out to be Spelling-style pronunciations, I have read with sympathy the phonetic transcriptions in Chang and Shefts 1964 (with its advantage of being accompanied by a tape-recording), Kitamura 1974, Hari 1979, and Hu 1982. Variation in the phonetic forms that I have found in those transcriptions has strengthened my suspicion that using citation forms, or one-word utterances, for phonetic and phonological analysis is an invitation to literate Tibetans to use a Spelling-style pronunciation, or — worse — a pronunciation that is neither LT nor Spelling-style but sufficiently influenced by the latter to lie somewhere between the two.

One way of escaping this very real hazard is to confine oneself to illiterate informants; the only other way, in my view, to be sure of having reliable LT data is to restrict oneself to sentences that are spoken, not read,

abstracting whatever phonetic forms are needed from the body of the sentence. A question-and-answer method can be helpful in distracting the informant's attention from crucial words and phrases, and helping him/her unwittingly to avoid artificial, or stylistically inappropriate, phonetic forms.

Instrumental analysis

I realize that a procedure such as that outlined above must needs add considerably to the difficulty of making instrumental analyses. It is seldom easy to find comparable environments for abstracting phonetic forms that are suspected of exemplifying crucial phonological differences; but I am reluctant to accept instrumental comparisons, such as Shefts 1968, that rely on word isolates. In this case the forms for comparison are taken from the tape-recording that accompanies Chang and Shefts 1964, which I have criticized above for not being free from the influence of Spelling-style pronunciations (II.B). Consequently, the findings that Chang and Shefts (1968) base on those instrumental results are also suspect in my eyes; and this unacceptability must also extend to the instrumental data that have been given in Hu (1982:19-23). I could wish that they had been incorporated in short sentences.

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