

# THE ROLE OF *r* IN THE DEVELOPMENT OF THE MODERN SPOKEN TIBETAN DIALECTS

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## I. *y*-like, *w*-like, and *r*-like syllable features

In his analysis of the monosyllable in Hunanese J. R. Firth suggested that *y*-like and *w*-like elements might be regarded, like tone, as features of the syllable as a whole.<sup>1</sup> Among his reasons for treating them as syllable features was the fact that it is rare for either of these two elements to be represented twice in the same syllable, i.e. in the syllable final as well as in the syllable initial, and vice versa. A similarly syntagmatic approach may simplify accounts of the development of *r* sounds in contemporary spoken Tibetan dialects from *r* sounds and other types of sound in earlier stages of the language, as indicated by the orthographic forms of Written Tibetan.<sup>2</sup>

<sup>1</sup> J. R. Firth and B. B. Rogers, *The structure of the Chinese monosyllable in a Hunanese dialect (Changsha)*: *Bulletin of the School of Oriental and African Studies* VIII, 4 (1937), 1059–60, 1066, 1073–4, republished in J. R. Firth, *Papers in Linguistics 1934–1951*: OUP 1957, 76–91.

<sup>2</sup> In this article the term «*r* sound» is used to cover several phonetically different types of consonant, both voiced and voiceless: (a), an alveolar fricative, in (i), the Lhasa dialect (L.) in all circumstances (examples 2, 5, 10, 12); (ii), Golok (G.) when preceding or following alveolar occlusion ([*rtr*-], ex. 7; [*rtr*-, (C)*tʃ*-], etc., exx. 2, 10–12); (iii) Khapalu Balti (B. (K.)), Skardu Balti (B. (S.)), and Balti generally (B.), when following syllable-initial occlusion except [*st*-], e.g. [*kʃ*-, *tʃ*-, *br*-] (ex. 10); (b), an alveolar roll, commonly one-tap, in (i), Golok, in all other circumstances, e.g. syllable-initial ([*r*-, *rC*-, *rC*-]) and syllable-final ([*-r*]), (exx. 2–6, 8, 12); (ii), both Khapalu and Skardu Balti, in all other circumstances except when following [*st*-], e.g. syllable-initial ([*r*-, *rC*-, *rC*-]) and syllable-final ([*-r*]), (exx. 2–4, 6); (c), a post-dental roll, in Balti, following a dental plosive ([*str*-]), (example 10).

All three types of *r* are symbolized by [*r*] when voiced and by [*r̥*] when voiceless; [*C*] symbolizes any appropriate consonant, [*N*] a homorganic nasal. [*t*] and [*d*] symbolize alveolars when preceding [*r/r̥*] except in the sequence [*str*-]; in [*str*-] the symbol [*t*], and in all other circumstances both [*t*] and [*d*], symbolize dentals.

In Skardu Balti there is also a contrasting sequence [*tr*] in which the plosive is not alveolar but dental, and the [*r*] is a post-dental roll, e.g. [*truk*] «six» (cf. *drug*), [*tris*] «ask» (imperative) (cf. '*dris*'), [*dra*] «same» (cf. '*dra*'), [*dre*] «devil» (cf. '*dre*'); but there are no such examples in this article (such examples correspond in initial to the symbols *dr* of Tibetan orthography; the corresponding Khapalu-Balti features are alveolarity with fricative [*r̥*], cf. a, iii above).

## II. Distribution of syllable-initial and syllable-final *r* and of *r* sounds corresponding to *r*

Thus, out of 1,209 entries in Jäschke's *Tibetan-English Dictionary* that contain *r* in the syllable initial, only eleven also have *r* in the syllable final;<sup>3</sup> and these eleven can be considered unusual on one or other of four grounds: they are either (a) contractions of disyllabic forms, (b) examples of what Jäschke calls the terminative case, and therefore of two lexical items, one of which is *-r*, (c) alternatives to an orthographic form containing some other prefix, *d*, *b*, or *s*, or (d) onomatopoeic;<sup>4</sup> and two of the eleven, *rnar* and *rcar*, are both contractions and examples of the terminative:

### 1. *r* in both syllable initial and syllable final, *rCVr*

#### a. contractions (3)

*rdor* for *rdo-rje*; (i) name of a monastery in Tibet, (ii) in *lag-rdor*  
and *phyag-rdor*, «Holder of the Sceptre» (*rdo-rje*)  
*rnar* for *rna-bar* «to the ear»  
*rcar* for *rca-bar* «near to» (*rca-ba* «root», «lower end»)

#### b. terminative (3)

*rgyar* «in extent»  
*rer* «to each»  
*srar* «severely» [?] from *sra* «firm»

#### c. alternative to *dC-*, *bC-*, or *sC-* (4)

*rgur dgur*, *rgur*, or *sgur* «crooked», «stoop»  
*rdar bdar*, *rdar* [sic, for *brdar*] «rub», «grind», e.g. *brdar-ša*, *rca-brdar*  
*gčod-pa* «examine closely»  
*rdor sdor*, *rdor* «seasoning», «spice»  
*rnar snur-ba* «shift»; cf. *brnu(r)-ba*

#### d. onomatopoeic (1)

*rmur rmur-ba* «gnarl [sic] and bite each other».

<sup>3</sup> H. A. Jäschke, *A Tibetan-English Dictionary*, 1881, re-printed London 1934. The orthographic forms of Written Tibetan are in italic fount; *C* summarizes all consonant letters appropriate to the environment in question.

<sup>4</sup> The alternation of the prefix *r* with *d*, *b*, or *s* in (c) may be due to the fact that there is no longer any phonetic distinction in the reading-style pronunciation of Written Tibetan corresponding to this orthographic distinction (apart from a few examples, restricted to medial position, in which *b* is distinguished from the others by labiality); the scribe has, therefore, nothing but his memory to guide him in his choice of prefix.

Where such modern spoken dialects as Balti, Golok, and Lhasa have a *r* sound ([*r*, *ʀ*]) corresponding to *r* in a Written-Tibetan orthographic form, this sound is, accordingly, confined to either syllable initial or syllable final;<sup>5</sup> e.g.

2. Written-Tibetan *r* and [*r*, *ʀ*] in the modern spoken dialects

a.	<i>rk-</i>	<i>rku</i>	B.	[ <i>ʀku</i> ] steal
b.	<i>rg-</i>	<i>rgun</i>	B.	[ <i>rgun</i> ] grape
c.	<i>rñ-</i>	<i>rña</i>	B.	[ <i>rña</i> ] reap
d.	<i>rʃ-</i>	<i>rʃes-la</i> later <i>rʃe/brʃes</i> <sup>6</sup>	B.	[ <i>rdzes(la)</i> ] in three days' time
			G.	[ <i>rdʒe: βdʒi:</i> ] exchange
e.	<i>rñid</i>	<i>rñid</i>	B. (K.)	[ <i>rñit</i> ] wrinkle
		<i>rñin-ma</i>	G.	[ <i>r rñä:(ma)</i> ] old
f.	<i>rt-</i>	<i>rtā</i>	B., G.	[ <i>rta</i> ] horse
g.	<i>rd-</i>	<i>rdun brdun</i> s	B. (K.)	[ <i>rdun</i> ] hit
			G.	[ <i>rdon βdon</i> ] hit
h.	<i>rn-</i>	no G. examples; B.	[ <i>sn-</i> ], e.g. [ <i>sna:</i> ]	<i>rna-ba</i> ear
i.	<i>rb-</i>	no B. or G. examples		
j.	<i>rm-</i>	<i>rma</i>	B.	[ <i>rma(kha)</i> ] sore
			G.	[ <i>r rma</i> ] sore
k.	<i>rc-</i>	<i>rced-mo</i>	B.	[ <i>rtsenə</i> ] game
			G.	[ <i>rtsi:mo</i> ] game
l.	<i>rj-</i>	<i>rjin</i>	B.	[ <i>rdzin</i> ] pond
m.	<i>rl-</i>	<i>rlun</i>	G.	[ <i>rl̥̥(:)</i> ] air
n.	<i>br-</i>	<i>brag</i>	B.	[ <i>brag</i> ], G. [ <i>ptrak</i> ], L. [ <i>tr̥̥a:</i> ]
				rock
o.	<i>r-</i>	<i>ri</i>	B.	[ <i>ri</i> ], G. [ <i>rə</i> ], L. [ <i>r̥̥i</i> ] hill

<sup>5</sup> My Balti, Golok, and Lhasa material I owe to the following informants: (Lhasa) Rinzin Wangpo (*rigs-'jin dban-po*) (R.), a Lhasa-born Tibetan, Research Assistant in Tibetan at the School of Oriental and African Studies, London, 1948—9; (Balti) for the Skardu dialect, the prestige dialect of Baltistan, Zakir Hussain Baltistani (Z.), a student and radio announcer, and for the Khapalu dialect, Abdul Karim, a watchman, both at Rawalpindi, West Pakistan, November, 1964—March, 1965; (Golok) Dodrup Rimpoche (*rdo-grub rin-po che*), a lama, at the Namgyal Institute of Tibetology, Gangtok, Sikkim, May, 1965. It was not possible to check my material in the actual dialect area in which each was spoken; but a visit to Gyantse, in the Tsang province of Tibet, where there were a number of Lhasa-dialect-speakers, in April-May, 1950, substantiated my Lhasa-dialect material. — Golok is, perhaps, not to be regarded as a dialect; cf. G. de Roerich, *Les Goloks et leur caractère ethnique: XV<sup>e</sup> Congrès International d'Anthropologie Préhistorique* (1931), Paris 1933, 741.

<sup>6</sup> Consonant-final verbs are regularly cited with both present and past forms: the past form sometimes seems more useful in dialect comparison than the present.

- p. -r 'bar B. [bar], G. [mbar] L. [bàr(ə)] burn  
'byar B. [bjar], G. [m(b)džar], L. [džàr(ə)] stick.<sup>7</sup>

### III. *r* sound corresponding to *d*, *s*, etc.

In Balti and Golok, however, a syllable-initial *r* sound sometimes corresponds not to the Written-Tibetan prefix *r* but to some other prefix, especially *d* or *s*; e.g.

#### 3. Written-Tibetan prefixes *d s*, and [*r*, *ʀ*] in the modern spoken dialects

<i>dk-</i>	<i>dka'</i>	B. [rka] difficulty
<i>dg-</i>	<i>dgos</i>	B. [rgos] need
		G. [rgo] need
<i>dñ-</i>	<i>dñul</i>	G. [rñi:] silver
<i>dp-</i>	<i>dpe</i> model	B. [rpe] imitation
<i>db-</i>	<i>dbus</i> middle	B. [rbus] [middle pillar of house] <sup>8</sup>
	<i>dbug</i>	G. [rvuk] breath
<i>dm-</i>	<i>dmag</i>	B. [rmaq] army, crowd
<i>sk-</i>	<i>skra</i> hair	B. [rka(lo)] plait
	<i>ske</i>	G. [rkje] neck
<i>sg-</i>	<i>sgo-po</i>	B. [rgo] body
	<i>sgaṅ</i>	G. [rgã:] projecting hill, spur
<i>sñ-</i>	<i>sña</i>	G. [rṅa] early
<i>sñ-</i>	<i>sñugs</i>	B. [rṅjəx] habit
<i>st-</i>	<i>ston</i>	G. [rton] thousand
<i>sd-</i>	<i>sduḡ</i>	B. [rduk] handsome
	<i>sdod/bsdad</i>	G. [rdod/βdəd] sit
<i>sn-</i>	none; cf. B. [sn-], e.g. [snamsul] <i>sna-mchul</i> nose	
<i>sp-</i>	<i>sprod/sprad</i> ask, set	B. [rpat] debate, argue
	<i>spyaṅ-ki</i>	G. [rʃʌŋ(kə)] wolf

<sup>7</sup> In the Lhasa dialect a syllable-final *r* sound corresponding to *-r* occurs only when the verb is combined with the nominalizing particle *ba*, e.g. 'bar-ba «burning», or the past-tense particle *ba*, e.g. 'bar-ba-red «it burnt», for both of which a phonetic spelling *ra* is sometimes used in writing down the Lhasa dialect as spoken. — The grave accent indicates that the lexical item in question belongs to the Lhasa dialect's lower tone classification, cf. R. K. Sprigg, *Verbal phrases in Lhasa Tibetan*, I: *BSOAS* XVI, 1 (1954), 142, n. 1. It has, in consequence, the lower of the two distinctive pitch levels in most environments, but commonly the higher when occurring as the second syllable of a disyllabic noun, e.g. *me-'bar*, cf. *The tonal system of Tibetan (Lhasa dialect) and the nominal phrase*: *BSOAS* XVII, 1 (1955), 147–8, 152–3.

<sup>8</sup> Z. preferred [vbus] and [vbul] respectively, with uvular friction initially.

<i>sb-</i>	<i>sbrul</i>	G. [rbul] snake <sup>8</sup>
		G. [rvi:] snake
<i>sm-</i>	<i>smran</i> speech	B. [ʁmā:] discussion
	<i>sman</i>	G. [ʁmən] medicine
<i>sc-</i>	none	
<i>sl-</i>	no examples; cf. B. [ʁts-], G. [ʁ-], e.g. [ʁtsap], [ʁop] <i>slob/bslabs</i> teach	

Where, however, Balti already has a syllable-final [r], this representation of the r feature in the syllable final appears either to have prevented the development of a r sound in the syllable initial, or to have suppressed it; e.g.

4. Written-Tibetan *dCVr*; Balti [ʁCVr]<sup>9</sup>

<i>dkar</i>	B. [kar] white, not *[ʁkar]
<i>dñar</i>	B. [ɲar] gentle, tasteless. not *[ʁɲar]
<i>dmar</i>	B. [mar] red, not *[ʁmar].

Two other Balti lexical items that one might expect to have [r] initially have not suppressed it but seem to have developed another sound instead:

<i>dbyar</i>	B. [zbjar] summer, not *[rbjar]
<i>dbu/lbu-ba</i>	B. [(ka)zbur] foam, not *[-rbur];

on the analogy of [rbus] «central pillar of the house» (*dbus* «middle», «midst», «centre») one would expect \*[rbjar] (or \*[zbjar]) and \*[(ka)rbur] (or \*[(ka)rbur]).<sup>10</sup>

In the available material the only exceptions to the generalization that [r] in the syllable final suppresses [r] or [ʁ] in the syllable initial, or substitutes some other sound for it, are single Golok and Lhasa examples, in which the «r» feature is represented in both syllable initial and syllable final:

5. Golok [rCVr] and Lhasa [rVr]

<i>spar/sbar-mo</i>	G. (reading style) [rvar(mo)] fist, paw
<i>ral-ba</i> torn	L. [rèrə, rè:bə] get torn.

<sup>9</sup> Cancelling a phonetic symbol, with a stroke, is not meant to symbolize some new and exotic category of sound but merely indicates that the sound that one might, by analogy, have expected to find is not present.

<sup>10</sup> Z. preferred initial uvularity: [zbjar], [zbus]. There is not initial [zb-] in Balti though there are [ld-], [ldz-], and [ldž-]; e.g. [ldag] «lick», [ldza:] «month», [ldžit] «weight» (cf. *ldag/bldags*, *zla-ba*, *ljid-pa*). Comparisons of one dialect with another and with Written-Tibetan orthography were made very much easier for me through the kindness of A. F. C. Read, author of *Balti Grammar* (London 1934), who kindly allowed me to make a copy of the surviving half of his typescript Balti-English dictionary.

It should, however, be noted that (i) the Lhasa example differs from the examples at (4) above in that its final [r] corresponds not to -r but to -l,<sup>11</sup> and (ii) the Golok colloquial form [xwara], which corresponds to the reading-style form [rvarmo], does not contravene the generalization.

#### IV. Syllable-initial r sounds, and r elsewhere in the syllable initial

Just as it is rare for the r feature to be represented in both syllable initial and syllable final in Golok and Lhasa Tibetan, and impossible in Balti, so, too, is it rare for the r feature to be represented twice in the syllable initial; indeed it is impossible in Lhasa and in Balti. Where a r sound has developed initially in the syllable from some sound presumed not to have been a r, the r feature seems to have ceased to be represented by a r sound elsewhere in the syllable initial; e.g.

##### 6. dCr-, bCr-, sCr-, and bsCr-, and [rCr-, rCr-]

dkr-	dkrog	B. [rkəq] churn, not *[rkroq]
dgr-	dgra	B. [rga] enemy, not *[rgra]
dbr-	dbrab	B. [rb <sub>Δ</sub> p (tšətpa)] be very quick at, not *[rbr <sub>Δ</sub> p]; see 'brab/brab, catch suddenly, snatch away
	dbri	B. [rbi] write; see 'bri/bris
bkr-	bkras	B. [rkəs(tšen)] skilful (bkras = adorned, decorated)
bgr-	bgrad	B. [rgət] face (an enemy), (bgrad = stare, gape)
skr-	skra hair	B. [rka(lo)] plait, [rka(za:t)] woman with falling hair, skra-zad
	skran/skranis	B. [rkā:] swell
bskr-	skrod/bskrad	B. [rkət] loose for grazing (skrod/bskrad = expel, drive out)
sgr-	sgrol/bsgral	B. [rkul] row
	sgrig/bsgrigs	B. [rgjik] fit together, mend
	sgrim/bsgrims	B. [rkjim] mix (sgrim/bsgrims = force, or twist, together)

<sup>11</sup> In verbs there is a regular correspondence of syllable-final [r] in the Lhasa dialect with syllable-final l of the orthography when the following syllable is either of the two particles *ba* (cf. note 7); but in this instance my informant R. preferred the alternative form [rɛ:bə] to [rɛrə], perhaps in order to avoid having two instances of [r] in such close proximity.

	<i>sgril/bsgril</i>	B. [ʀkʂil] roll around ( <i>sgril/bsgril</i> = wind or wrap round, roll up)
<i>spr-</i>	<i>sprañ-po</i>	G. [ʀfaŋp] beggar
	<i>sprod/sprad</i>	B. [ʀpət(pa)] dialogue, debate, quarrel ( <i>sprod/sprad</i> = make meet, propose, explain)
	<i>sprin</i>	G. [ʀfun] cloud
	<i>spre</i>	G. [ʀʀfi:] monkey
	<i>sprug</i>	B. [ʀpuk] shake off
	<i>sprul</i>	B. [ʀpul] untie and shake ( <i>sprul</i> = juggle, transform, re-incarnate)
<i>sbr-</i>	<i>sbra</i>	G. [ʀβa] tent
	<i>sbrag/sbrags</i>	B. [ʀbaq] pile up, chorus ( <i>sbrag/sbrags</i> = lay alongside)
	<i>sbrul</i>	B. [ʀbul] snake <sup>12</sup>
		G. [ʀβi:] snake
<i>smr-</i>	<i>smrañ</i> speech	B. [ʀmã:] mention, discussion, claim.

These twenty-three examples are all that can be found in the available material; they are probably exhaustive for Balti but not for Golok. Not all of them have the same degree of acceptability: the Balti forms [ʀbi] «write» and [ʀbΔp] «quick at», for example, have been associated with orthographic forms *dbri* and *dbrab* respectively; but it must be admitted that, though Jäschke does indeed give these two forms, he does so without citations or grammatical classification, with nothing more, in fact, than a reference to 'bri/bris and 'brab/brab.<sup>13</sup>

It must also be admitted that the *r* feature is represented twice in a number of Golok examples; they correspond to Written-Tibetan *sr-*; e.g.

7. *sr-* and Golok [ʀCr-]

<i>sr-</i>	<i>sras</i>	G. [ʀtri:] son
	<i>srid</i>	G. [ʀtrat] existence
	<i>srin-bu</i>	G. [ʀtrənbə] worm
	<i>srol</i>	G. [ʀtrol] custom.

It may be that these forms are examples of an intermediate stage between e.g. \*[stri:] (*sras*) and \*[ʀti:] or \*[tri:] (cf. L. [trɛ:], but more usually [sɛ:]), \*[strin] (*srin*) and \*[ʀtin] or \*[trin] (cf. B. [strin] «insect»), and \*[strit] and \*[ʀtit] or \*[trit] (cf. B. [strit] «territory»).

<sup>12</sup> Z. preferred [ʀbul].

<sup>13</sup> On the analogy of such verb forms in *dby-* as *dbye*, *dbyuñ*, and *dbyi*, which Jäschke treats as actual or possible future forms of 'byed/phye «open», 'byin/phyuñ «draw out», and 'phyi/phyi «late» respectively, these forms in *dbr-* are also, perhaps, to be regarded as future, though Jäschke does not give them a grammatical classification.

### V. Past-tense forms of Golok *r*-feature verbs

The past tense of at least some Golok verbs is indicated by syllable-initial bilabial friction ( $[\Phi, \beta]$ ); e.g.  $[\Phi sət]$  *bsad* «killed»,  $[\Phi rək]$  *bsreg* «burned»; in the case of *r*-feature verbs a *r* sound seems not to co-exist in the syllable initial with the labial friction, and the *r*-feature is not, therefore, represented in these forms by a *r* sound; e.g.

8. Golok present  $[rC-, rC-]$ , but past  $[\Phi C-, \beta C-]$

present		past	
$[rʈən]$	<i>ston</i> show	$[\Phi tən]$	<i>bstan</i> showed
$[rdət]$	<i>sdod</i> stay	$[\beta dət]$	<i>bsdad</i> stayed
$[rdən]$	<i>rduñ</i> strike	$[\beta dən]$	<i>brduñs</i> struck
$[rəkjon]$	<i>skyon</i> mount	$[\Phi kjon]$	<i>bskyon</i> mounted
$[rdʒe:]$	<i>rʒe</i> change	$[\beta dʒi:]$	<i>brʒes</i> changed. <sup>14</sup>

Since *ra-mgo* (*rt-*, *rl-*), *la-mgo* (*lt-*), and *sa-mgo* (*sñ-*) seem to correspond to the Golok *r* feature, the following verbs, only the past forms of which are exemplified in the available material, may be added to the examples just given:<sup>15</sup>

9. Golok past  $[\Phi C-, \beta C-]$ ,  $[?]$  present  $[rC-, rC-]$

present		past	
<i>rtog</i>	examine	G. $[\Phi t_{\Delta}k]$	<i>brtags</i> examined
<i>rlog</i>	overthrow	G. $[\beta əlak]$	<i>brlags</i> overthrew
<i>lta</i>	look	G. $[\Phi ti:]$	<i>bltas</i> looked
<i>ltam(s)</i>	fill	G. $[\Phi tam]$	<i>bltams</i> filled
<i>sñuñ</i>	is ill	G. $[\Phi ruŋ]$	<i>bsñuñs</i> was ill.

Even though the verb forms listed at (8) have no *r* sound in the past-tense forms given there, but only in the present-tense forms, there would seem to be advantages in applying the prosodic classification *r*-feature to all five lexical items concerned regardless of the absence of  $[r/r]$  from the past-tense forms. In that case the phonetic exponents of the *r* feature will contain a *r* sound in the present-tense form, and will consist of the sequences  $[rt-$ ,

<sup>14</sup> These examples recall de Kőrös's observation: 'with any of the surmounting letters - - - (*r*, *l*, *s*) - - - [*b*] is sounded *b*, those letters being then silent' (Alexander Csoma de Kőrös, *Grammar of the Tibetan language*, Calcutta 1834, 4).

<sup>15</sup> A Golok syllable-initial  $[r]$  or  $[r]$  has been shown to correspond to *ra-mgo* and *sa-mgo* in the examples at (8) above; for *la-mgo* cf.  $[rŋa]$  *lña* «five»,  $[r(š)tš_{\Delta}g]$  *lčags* «iron»,  $[(\Phi ša:n)(r)fak]$  *spyam-lpags* «eyelid»,  $[r\beta/va]$  *lba-ba* «goitre».



*rd-*, *r̥k-*, *rdʒ-*]; but in the past-tense forms the exponents of *r* will not contain a *r* sound, and will consist of the sequences [*ʔt-*, *βd-*, *ʔk-*, *βdʒ-*]. That is to say, the *r* feature does not have a *r* sound as part of its exponency in all circumstances: provided that the verbs shown at (8) and (9) have a *r* sound in their present-tense form, that sound can perfectly well be dispensed with in their past-tense forms.

In this connection it is interesting to note that the orthographic symbols corresponding to the *r* feature, the prefixes *r*, *l*, and *s*, are to be found in both present-tense and past-tense forms; they thus support the phonological analysis proposed here for these verbs: they are just as much *r*-feature in these past-tense forms as in their present-tense; only the exponents are different.

## VI. Post-consonantal *r* sounds in the syllable initial, and homorganic plosives

In section IV a more prominent role has been suggested for syllable-initial *r* sounds at the expense of *r* sounds presumed to have formerly occurred at a later, and post-consonantal ([*rCr-*]), place in the initial part of the syllable; but these post-consonantal *r* sounds also appear to have played an important though different role. They seem to have given rise, in Khapalu Balti, Skardu Balti, Golok, and Lhasa Tibetan alike, but in different degrees and in different environments, to plosives of the same alveolar or dental localization as themselves; e.g.

10. *Cr-*, and [*tr̥-*, *dr-*, *Ctr-*] in Balti, Golok, and Lhasa

<i>chr-</i>	<i>chrims</i>	B. (K.) [ <i>k̥rim</i> ], B. (S.) [ <i>tr̥im</i> ],	G. [ <i>trim</i> ],	L. [ <i>tr̥im</i> ] <i>la w</i>
<i>gr-</i>	<i>gron</i>	B. (K.) [ <i>gr̥ɔ̃</i> ], B. (S.) [ <i>dr̥ɔ̃</i> ],	G. [ <i>tr̥ɔ̃-</i> ], G. [ <i>ftr̥ul-</i> ],	L. [ <i>tr̥ɔ̃-</i> ] village L. [ <i>try-</i> ] incarnation
<i>spr-</i>	<i>sprul-sku</i>			
<i>phr-</i>	<i>phru(g)-gu</i> <i>kh̥yi-phrug</i>	B. [ <i>p̥ru:</i> ]	G. [ <i>pt̥r̥əg-</i> ],	L. [ <i>tr̥u:g-</i> ] young L. [ <i>-ptru:</i> ] puppy
<i>br-</i>	<i>bra-bo</i>	B. [ <i>bro:</i> ]	G. [ <i>ptr̥a-</i> ],	L. [ <i>tr̥à-</i> ] buckwheat
<i>sr-</i>	<i>srin</i>	B. [ <i>str̥in</i> ]	G. [ <i>r̥tr̥ən-</i> ],	L. [ <i>sim-</i> ] insect, worm.

If the phonetic forms in which there is a [*t̥*] or [*d̥*], symbolizing alveolar occlusion (but dental in [*str-*]), be compared with each corresponding orthographic form and with each corresponding phonetic form that does not contain

[t] or [d], grounds will emerge for treating the alveolar or dental occlusion as a junction feature, of the same place of articulation as the following *r* sound.<sup>16</sup>

The resulting alveolar plosives can be used to account for an anomaly in Golok whereby the initial nasal of such examples as the following is not of the same (alveolar) localization as the following affricate:

11. 'phr- and 'br-, and Golok [mtr-, mdr-]
- |       |           |                          |        |
|-------|-----------|--------------------------|--------|
| 'phr- | 'phrañ    | G. [mtr̥ä:]              | path   |
|       | 'phreñ-ba | G. [mtr̥aŋa]             | rosary |
| 'br-  | 'bras     | G. [mdri:]               | rice   |
|       | 'bri/bris | G. [mdr̥ə/ptr̥ə:]        | write  |
|       | 'brug     | G. [mdruk] <sup>17</sup> | dragon |
|       | 'brum     | G. [mdr̥əm]              | berry. |

In these examples one would expect [ntr-] ('phr-) and [ndr-] ('br-); for, apart from these examples, the orthographic prefix ' ('a chuñ) regularly corresponds to a homorganic nasal in those spoken dialects in which it corresponds to a nasal at all; e.g.

12. 'C-, and Golok and Lhasa [NC-] ([N] = homorganic nasal)
- |       | G.        |                             | L.                              |
|-------|-----------|-----------------------------|---------------------------------|
| 'kh-  | [ŋkhor-]  | 'khor-lo watch              | [-ŋwɔ:] lo-'khor calendar       |
| 'khy- | [ŋkʲak]   | 'khyag(s) feel cold         | [-ŋgja] sku-'khyag feeling cold |
| 'khr- | [-ntrək]  | dmag-'khrug hostilities     | [-ndry:] nor-'khrul mistake     |
| 'g-   |           |                             | [-ŋgà] gnad-'gag importance     |
| 'gy-  |           |                             | [-ŋgjù:] gsar-'gyur news        |
| 'gr-  | [ŋgjo]    | 'gro go                     | [-ndrù] chu-'gro drain          |
| 'ch-  | [ntʃham]  | 'cham dance                 |                                 |
| 'j-   | [ndʒa]    | 'ja' rainbow                | [-ndʒàm] drod-'jam lukewarm     |
| 'th-  | [nthɔŋ]   | 'thuñ drink                 |                                 |
| 'd-   | [ndɔd-]   | 'dod-mo wish                | [-ndɔ:] mtho-'dod ambition      |
| 'dr-  | [-ndra]   | sku-'dra image              | [-ndrə] sku-'dra image          |
| 'ph-  | [-mpheŋ-] | mda'-'ben-gyi of the target | [-mba:] rca-'phar pulse-beat    |

<sup>16</sup> For the different types of *r* sound see note 2.

For a detailed account of the phonetic processes involved see R. K. Sprigg, *A tibeti mássalhangzókapcsolatok fonetikai problémái: Magyar Tudományos Akadémia I. Osztályának Közleményei* (trans. A. Róna-Tas) (in print).

<sup>17</sup> The (rounded) vowel in this example is thought to be due to the influence of the Lhasa dialect, in which the research in Golok was conducted; other Golok examples containing a vowel corresponding to orthographic *u*, e.g. the following example, 'brum, suggest that non-rounding and centralization ([ə]) would be the appropriate features here.

'phr-			[-ndry:]	čho-'phrul magical trick
'b-	[mbar]	'bar burn	[-mbà:]	me-'bar blaze
'by-	[m(b)džar]	'byar get stuck	[-ndžə:]	phyag-'byor obtaining
'br-			[-ndrùm]	lha-'brum small-pox
'j-			[-nzùm]	žal-'jum smile
'g-	'ga' several B.	[-ŋga] people	(with numerals)	(mi-)
'd-	'da' exceed B.	[-nda] people	(with numerals)	(mi-).

It seems reasonable to suppose that the irregularity in the Golok examples corresponding to 'phr- and 'br-, [mtr-, mdr-], labial nasality where one would expect homorganic, and therefore alveolar, nasality, might be due to the «r» sound: that earlier syllable initials \*[mpr-] and \*[mdr-], in which the nasal is both labial and homorganic, gave rise to an alveolar plosive (\*[mpt-, mbd-]), which, with subsequent nasalization of, or simply loss of, the labial stop, resulted in [mtr-] and [mdr-]. This supposition is supported by an alternation in the pronunciation of the Golok palatal-initial form [m(b)džar] 'byor/'byar «get stuck» (examples 12, 'by-), with and without a labial stop ([b]), and, accordingly, with homorganic alternating with non-homorganic nasality.