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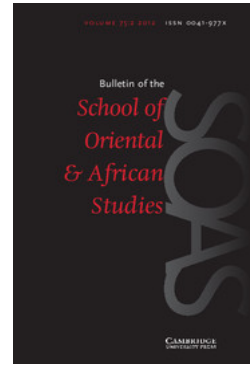
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R. K. Sprigg

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THE GOLOK DIALECT AND WRITTEN TIBETAN PAST-TENSE VERB FORMS¹

By R. K. SPRIGG

I. *Introductory*

Tibetan orthography looks phonetically challenging, to say the least; and one may well wonder whether such tongue-twisting combinations as the *brj-* of *brjes*, the *blt-* of *bltas*, or the *bst-* of *bstan* ever did twist a Tibetan tongue, or whether the significance of these and other such orthographic forms might not have been morphophonemic in origin, with the letters *r*, *l*, and *s* in the syllable initial of forms such as these serving to associate these past-tense forms lexically with their corresponding present-tense forms; e.g.

pres.	<i>rje</i>	<i>lta</i>	<i>ston</i>
past	<i>brjes</i>	<i>bltas</i>	<i>bstan</i> ¹
	barter	look	show

Viewed in relation to Tibetan orthography the past-tense forms of a class of verbs in the Golok dialect seem to support this hypothesis. Table 1, below, contains a number of examples of Golok verbs in their past-tense and present-tense forms to illustrate a type of phonological analysis suited to that view of the *r* syllable-initial unit in the Golok examples, and, indirectly, in the WT examples too (the symbols *b* and *ḅ* will be accounted for in section (B) below).

TABLE 1

WT		<i>skyon</i>	<i>lta</i>	<i>ston</i>	<i>ldag</i>	<i>sdod</i>
Golok	{	<i>ḅ</i> (pres.)	[r̥kjo(ə)n ²	r̥(s)ta	r̥(s)ton	rdak
		<i>ḅ</i> (past)	[ʔkjo(ə)n	ʔti:	ʔtan	βdaŋ ³
WT		(<i>b</i>) <i>skyon</i>	<i>bltas</i>	<i>bstan</i>	<i>bldags</i>	<i>bsdad</i>
Gloss		put astride	look	show	lick	sit
<i>rdung</i>	<i>rje</i>	<i>slob</i>	<i>rtse</i>	<i>zlo</i>	<i>rnga</i>	<i>rngod</i>
<i>rdəŋ</i>	<i>rdze</i>	r̥(s)tsab (loŋ) ³	r̥tse	rdzo (rdo) ³	r̥ŋa ⁴	r̥ŋo] ⁴
<i>βdaŋ</i>	<i>βdzi:</i>	ʔtsab (ʔlab)	ʔtsi:	bzi: (βdi:)	βŋi:	βŋu:]
<i>brdungs</i>	<i>brjes</i>	<i>bstabs</i>	<i>rtses</i>	<i>bzlas</i>	<i>brngas</i>	<i>brngos</i>
beat	barter	teach	play	say	mow	roast

¹ Based on a paper read at the tenth International Conference on Sino-Tibetan Languages and Linguistics, at Georgetown University, in October 1977.

For Written Tibetan (WT) orthography and glosses I have relied on Jäschke, 1881 (reprinted 1934; for list of references see p. 60).

² I am grateful to Dodrupchen Rimpoche, of the Namgyal Institute of Tibetology, Gangtok, Sikkim, a refugee incarnate lama, for his help in providing me with the Golok data on which this study is based during a week's work with him in 1965 and a further three days in 1974.

³ The final nasal in [βdaŋ] anticipates the nasal-initial following particle [nl]. From the Golok reading-style alternative (in brackets) it will be seen that Golok has its own reading-style of pronunciation, differing markedly from that of the rest of the Tibetan-speaking area. For the first recognition of the difference between reading-style and spoken-style pronunciation in Tibetan see T. Yu and Y. R. Chao, 1930, 198.

⁴ Imperative [r̥ŋu:] (i) 'mow', (ii) 'roast', *rngos*.

II. Golok *r* (lexical) and *b* and \bar{b} (non-*b*) (grammatical)

The time available did not allow me to note more *r*-cluster verbs than the twelve in table 1 in both their present-tense and past-tense forms.⁵

A. The Golok *r*-cluster piece, and the *g*-, *b*-, *m*-, and *n*-cluster types of piece (WT *r*, *l*, *s*; *g*, *d*, *b*, *m*, '), and lexical classification⁶

It is possible to treat each of the 12 pairs of verb forms in table 1 as containing a *r* cluster, or *r* syllable-initial piece. This may appear to be an obvious course in the case of the present-tense forms because a rolled (or trilled) sound, voiceless or voiced ([\bar{r} , r]), occurs in the syllable-initial cluster of each: [\bar{r} k, r (s)t; rd, rdz, r (s)ts, rdz, (rd), rŋ]; but this approach requires that the syllable-initial clusters in the past-tense forms too be treated as phonetic exponents of that same *r* phonological unit in spite of the fact that a rolled (trilled) sound is notably absent from them: [Φ k, Φ t, β /bd, β dz, Φ ts, Φ ts (Φ l), bz (β d), β ŋ]. That is to say, the syllable-initial clusters in each pair of present-tense and past-tense forms are equal, and complementarily distributed, phonetic exponents of the phonological term *r*, a member of a system, the initial-cluster system, that includes such other (and contrasting) terms as the following.

TABLE 2

Term	Present/Past	WT	Gloss
<i>g</i>	[xsot]/[Φ sat]	gsod/bsad	kill
<i>b</i>	[bzo]/(lacking) ⁷	bzo/bzos	make
<i>m</i>	[mdrə]/[ptri:]	'bri/bris	write
<i>n</i>	[ndzwp]/(lacking) ⁷	'jib/bzhibs	sip

a total of five terms for Golok, in comparison with the eight symbolized for WT by means of the letters *r*-, *l*-, *s*-; *g*-, *d*-, *b*-, *m*-, and ' (ra-/la-/sa-mgo; sngon-'jug lnga).⁸

⁵ It was only quite late in my Golok research programme that I realized that it was important to give priority, over a wealth of absorbing data, to the past-tense verb forms in which [Φ] and [β /b] correspond to the *b*- of WT in word-initial position: I have not met with this feature in any other current Tibetan dialect.

⁶ My second piece of research with Dodrupchen Rimpoche, in 1974, has increased my suspicion (Sprigg, 1972, 553) that a further type of Golok cluster probably needs to be recognized, a type that might suitably, from its correspondence to the members of the WT *sa-mgo* series *sng*-, *sny*-, *sn*-, and *sm*-, be termed the Golok *s* cluster; but the three days available for that piece of research proved too short for a systematic search for verbs with the mixed-voicing initial clusters [\bar{r} ŋ, r ŋ, \bar{r} m, r m] that would qualify as examples of this further type of cluster. If my suspicions turn out to be well-founded, the noun and adjective lexical items on p. 576 of Sprigg, 1972, will need to be corrected as follows: the Golok reflex of *s (section (a)) should be altered from ' *r* ' to *s*; two of the three Golok examples there, [\bar{r} mən] 'medicine' (*smən*) and [(mtsho)rŋən] 'Blue Lake' (*mtsho-sngon*), will then become examples of this sixth type of cluster, the *s*; the third example, [\bar{r} ŋaŋ(ma)] 'Nyingma' (*rynying-ma*), which I have alternatively transcribed as [\bar{r} ŋaŋma], with voice throughout the initial cluster ([\bar{r} ŋ]), should probably continue to be treated as an example of the *r* cluster, and should therefore be transferred to the table of reflexes of **r* in section (b) of that same page. My further piece of Golok research, in 1974, has also given me, in [\bar{r} (s)ŋaŋ] 'heart' (*snying*), a mixed-voicing cluster [\bar{r} (s)ŋ] to replace that of the suspect ' [\bar{r} ŋaŋ(ma)] ' (cf. also Balti [snŋ], Lhasa [ŋl:], together with an additional example, of [\bar{r} (s)n-], in [\bar{r} (s)na] 'nose' (*sna*); the Balti example [snaa] 'ear' on p. 576 should consequently be deleted in favour of [sna(msol)] 'nostril' (*sna-mshul*) to match its Golok cognate [\bar{r} (s)na].

⁷ For the two forms that are lacking my prediction would be *[bzur:], on the analogy of [rŋo]/[β ŋu:] 'roast' (table 1), and *[bzurp] or [β zurp], on the analogy of [β zak] or [bzag-] 'put' ('jog/bzhag).

⁸ See p. 54, n. 6.

Lexical classification

The phonetic exponents of *r*, then, as one term of a five-term system, include

TABLE 3

$$r \begin{cases} \text{(pres.)} & [\text{rk}, \text{r(s)t}, \text{rd}, \text{rdz}, \text{rts}, \text{r(s)ts} (\text{l}), \text{rdz} (\text{rd}), \text{rŋ}] \\ \text{(past)} & [\text{Φk}, \text{Φt}, \text{β/bd}, \text{βdz}, \text{Φts}, \text{Φts} (\text{Φl}), \text{bz} (\text{βd}), \text{βŋ}]; \end{cases}$$

and all the 12 verb lexical items exemplified in table 1 are, therefore, classifiable phonologically as *r*-cluster verbs (nouns and adjectives are bound to differ from verbs in that they do not have the double phonetic exponency due to the present-tense and past-tense forms of verbs).

A corresponding statement with, in some cases, alternative phonetic exponents (present-tense and past-tense) can, of course, be made for some of the other terms of this Golok initial-cluster system such as the *g* term mentioned above; e.g.

$$g \begin{cases} \text{(pres.)} & [\text{xs}] \text{ (WT } \textit{gsod}) & \text{kill} & [\text{xt}] \text{ (WT } \textit{dkrog}) & \text{stir,} \\ \text{(past)} & [\text{Φs}] \text{ (WT } \textit{bsad}) & & [\text{xt}] \text{ (WT } \textit{dkrogs}) & \end{cases}$$

whence $[\text{xsot}/\text{Φsat}]$ (WT *gsod/bsad*) and $[\text{xtɔk}/\text{xtɔk}]$ (WT *dkrog/dkrogs*) can be classified as *g*-cluster (verb) lexical items; but, in the corresponding WT forms there is the orthographic difference that the *g* symbol does not appear, morphophonemically, in the past-tense form; e.g. *bsad*, not **bgsad* (cf. the WT spellings of the *r*-cluster present-tense and past-tense forms in table 1, e.g. *rdung/brdungs*, and the *l*-cluster and *s*-cluster forms *lta/bltas* and *ston/bstan* too), a defect in the Tibetan orthography in the view of phonologists who favour morphophonemic interpretation of the WT verb spellings: once a *r*-cluster verb, always a *r*-cluster verb; once a *g*-cluster verb, always a *g*-cluster verb;

B. *The b and b̄ (non-b) clusters, and grammatical classification*

It is now necessary to return to the examples in table 1 in order to explain the symbols *b* and *b̄* (non-*b*). The initial clusters on the lower, or *b*, line, $[\text{Φk}, \text{β/bd}, \text{βdz}, \text{bz}]$, etc., all contain labiality as a feature in the form of (voiced and voiceless) bilabial plosives and fricatives, corresponding, in almost every instance, to *b* in the WT orthography, whence they may helpfully be classified as *b* initial clusters; and the same classification extends beyond *r*-cluster verbs, of course, to, for example, the initial cluster $[\text{Φs}]$ of a *g*-cluster verb such as $[\text{xsot}]/[\text{Φsat}]$ (*gsod/bsad*) 'kill' (table 2; but not, incidentally, to the *g*-cluster verb $[\text{xtɔk}/\text{xtɔk}]$ above). This past-tense form $[\text{Φsat}]$, through its initial cluster $[\text{Φs}]$, is an example of the *b̄* cluster for this (lexical) *g*-cluster verb just as $[\text{Φkjo}(\text{ə})\text{n}]$ and $[\text{βdŋ}]$ (WT (*b*)*skyon, brdungs*), through their initial clusters $[\text{Φk}]$ and $[\text{βd}]$, are examples of the *b* cluster for those (lexical) *r*-cluster verbs. This term *b*, then, cuts across the lexical boundaries *r*-cluster, *g*-cluster, and *n*-cluster distinguished in section (A) above, and unites $[\text{Φsat}]$ with e.g. $[\text{Φkjo}(\text{ə})\text{n}]$, $[\text{βdŋ}]$, and $[\text{ptɕi}]$ (tables 1 and 2) as examples of the phonological unit *b* of a second, and parallel, cluster system; but with the important difference that this second cluster classification applies not to lexical items but to *forms* of lexical items, and is applicable only to verb lexical items.

The phonological system in which this *b* term functions is a two-term system; and the *b* type of cluster contrasts with a type of cluster in which there is considerable variety of phonetic features depending on the lexical

cluster class of the verb in question; but at least one can say that, in r-cluster verbs, that cluster will contain a rolled sound, as in the [ʀk] and [rd] of [ʀkjo(ə)n] and [rdŋ] (WT *sk-*, *rd-*; *skyon*, *rdung*) (table 1), or, in g-cluster verbs, the equally non-labial velar fricative [xs] of [xsot] (*gsod*), and, in n-cluster verbs, the non-labial nasality of [ndz-] in [ndzɔp] (WT *'jib/bzhib*). All such initial clusters are united as exponents of the contrasting term \bar{b} , regardless of whether they are drawn from (lexical) r-cluster, g-cluster, or n-cluster verbs, or, indeed, m-cluster, e.g. [mdɹə]/[ptɹi:] 'write' (*'bri/bris*) (tables 1 and 2); but not the (lexical) b-cluster type in that system (table 2), e.g. [bzo] 'make' (*bzo/bzos*); for the b- \bar{b} system does not apply to the lexical b-cluster verbs. Indeed the b- \bar{b} system does not apply to m-cluster verbs either apart from those which have developed into the m-cluster type from an earlier *n-cluster type, e.g. the [mdɹ-] of [mdɹə] 'write' (*'bri*; table 2), from *[mbɹ] from *[mbɹ] (and the [ptɹ-] of [ptɹi:], the corresponding past-tense form (WT *bris*), from *[pɹ-]; cf. Sprigg, 1968, 309-11).

The b and \bar{b} members of this two-term cluster system, unlike the b, r, g, m, and n members of the five-term (lexical) cluster system stated in section (A), have a grammatical function to perform: the \bar{b} term is a phonological exponent of the syntactic category 'present' (and also, though in a different grammatical system, of the category 'imperative' as opposed to—say—'declarative'; e.g. [rŋ-] and [rdz-]: [rŋu:] 'mow!' (*rngos*), [rŋu:] 'roast!' (*rngos*), and [rdzu:] 'say!' (*zlos*)). The b and the \bar{b} terms distinguish forms of lexical items—grammatical forms—and are confined to the verb; for it is through these and other forms of the verb (with the help of the temporal sub-category of noun, e.g. [kharsaŋ] 'yesterday' (*kha-rtsang*), [sannaŋ] 'tomorrow' (*sang-nyin*)), that these syntactic categories 'past', 'present', and 'future' function.

In WT it is *b* that regularly corresponds to this Golok grammatical \bar{b} term, while other WT terms, with present and future (and imperative) functions, are variously symbolized depending on the lexical cluster class (*rd-*, *rts-*; *lt-*, *ld-*; *sk-*, *sl-*; (table 2) *gs-*, *'j-*), but excluding the *m-* and the *b-* types of cluster, to which the past-tense *b* cannot be applied, no doubt because of the labiality feature symbolized by *b-* and *m-*; e.g. *bzo* 'make', *mkhjen* 'know'; and the same is true of *'*-cluster verb lexical items in *'b* and *'ph*, which therefore alternate with past-tense word-initial *b-* and *ph-*, not **bb-* and **bph-*; e.g. *'bri/bris* 'write', *'phur/phur* 'fly'.

C. The liquid-versus-occlusive system, and the r-cluster phonematic system

Before reaching the phonematic stage of the analysis it is necessary to return to table 1 and the 12 examples of r-cluster verbs shown in it in order to make a further prosodic distinction, to be stated as a two-term prosodic system comprising (1) 'liquid' (or 'sonorant'), (2) 'occlusive'.⁹

Syntagmatically, the 10 examples that have occlusion (plosion and affrication) as a feature have different potentialities from the remaining two: they can be divided into voiceless clusters and voiced clusters ([ʀk/ʃk, ʀ(s)t/ʃt, ʀ(s)ts/ʃts] versus [rd/βd, rdz/βdz, rdz/bz]), though the last of these has friction in the b-cluster member of the pair, and for this reason should perhaps be dealt with separately from the others, which have occlusion in both members; the remaining two examples differ in that they have the liquid (or sonorant)

⁹ For this distinction between occlusive clusters and 'liquid' (or sonorant) clusters see also Sprigg, 1972, 557-60 and 574-5; cf. also the division into 'Stop initials' and 'Non-stop initials' for Proto-Tibeto-Burman (PTB) in Matisoff, 1972, 12-26.

feature nasality in the cluster, and this, in the r cluster, requires voice to be a feature of the whole cluster ([rŋ/βŋ]).¹⁰

1. *The liquid (sonorant) cluster piece: phonematic system*

There was not, unfortunately, time to complete the study of the r type of cluster; and my notes contain only three further examples of clusters belonging to the liquid sub-category in verb lexical items: [rput] 'wither', [rmuk] 'bite', and [βelak] or [βlag-] 'overthrow', all three of them identifiable from the context as past-tense forms, though only the third has also a b (grammatical) cluster (its corresponding b cluster should be *[rl]; cf. WT *rlog*). Adding these three to the [rŋ]/[βŋ] pair of clusters exemplified in table 1 ([rŋa]/[βŋi:] 'mow' *rnga/brngas*; [rŋo]/[βŋu:] 'roast' *rngod/brngos*) would result in a four-term phonematic system for this, the liquid, prosodic type of r cluster; and these terms could be symbolized as: Ñ, N̄, M, and L, with nasality as an exponent for the first three, and laterality for the fourth, together with, respectively, velarity, palatality, labiality, and alveolarity as exponents drawn from place of articulation.

However, it is noteworthy that Golok noun and adjective lexical items belonging to this liquid-piece type of r cluster provide examples of five phonematic units: Ñ, N̄, N, M, and L; e.g.

TABLE 4

	Cluster	Unit	Example	Gloss	WT
1	r	Ñ	[rpi:(tchv)]	sweat	<i>rngul-chu</i>
2		N̄	[rpaŋβa] ¹⁰	old	<i>rnying-pa</i>
3		N	[rna]	ear	<i>rna-ba</i>
4		M	[rma] ¹⁰	wound	<i>rma</i>
5		L	[rlŋ]	breeze	<i>rlung</i>

so it is not unreasonable to expect that further research on Golok will provide something like this five-term system for verbs too. WT orthographic forms suggest that the following should be investigated in search of a fifth term N, with nasality and dentality as its exponents: *rnang/brnangs* 'be checked'.

¹⁰ I have already mentioned, in p. 54, n. 6, my suspicion that a sixth type of cluster, to be termed the s cluster, needs to be recognized for Golok, to treat, syntagmatically, four mixed-voicing rolled-and-nasal initial clusters, [rŋ, rŋ, rŋ, rŋ], as distinct from the five fully voiced rolled-and-nasal/lateral clusters [rŋ, rŋ, rŋ, rŋ, rŋ], which are to be regarded as examples of the r type of cluster, in a cluster system to be expanded from a five-term (r, g, b, m, n) to a six-term through the inclusion of this further term s. This will mean that it is necessary to make alterations to the views stated on p. 576 of Sprigg, 1972 (cf. also p. 54, n. 6, above), and also on p. 553. The hesitation there was partly due to my having originally transcribed both mixed voicing and full voice for the initial cluster of [r/raŋma] 'Nyingma' (*rnying-ma*) and of [r/rma] 'wound' (*rma*); my more recent work with Dodrupchen Rimpoche favours the fully voiced alternative ([rŋ] and [rŋ]), and, therefore, the classification of both these lexical items as r-cluster as opposed to the presumed s-cluster initials [rŋ] and [rŋ] of [r(s)naŋ] 'heart' (*snying*) and [rŋmən] 'medicine' (*smən*). I am also now able to add further examples, of [rŋ] and [rŋ], to the r cluster (table 4): [rpaŋβa] 'old' (*rnying-pa*) (Balti [snaŋma]), and [rma] 'ear' (*rna-ba*) (Balti [snaa]).

The alternation in the voicing features of the clusters [r/raŋ] and [r/rm] may have been due to mis-hearing on my part, or, possibly, to misunderstanding; for the language of research that my informant and I were using was the mother tongue, or mother dialect, of neither of us; or it may in fact have reflected a fluctuation in usage, as part of a tendency, perhaps, for the distinction between the s cluster and the r cluster to disappear in the 'liquid' type of cluster (just as it appears to have done in the verb examples of the 'occlusive' type of cluster in favour of the r term; table 1, table 5): among my noun lexical items I have transcribed both voicelessness ([rŋ]) and mixed voicing ([rŋ]) for certain lexical items: [r/rŋm] 'cloud' (*sprin*), [r/rŋi:] 'monkey' (*sprel*), [r/rŋaŋo] 'beggar' (*sprang-po*), [r/rŋmba] 'Saturn' (*spen-pa*) (but only mixed voicing in [rŋaŋkə] 'wolf' (*spryang-ki*)).

Powers of combining with b and b̄

It is also important to establish which terms of this four-term (or, possibly, five-term) system can combine with the two-term b-versus-b̄ (grammatical) cluster system. The two pairs of examples in table 1 prove that the Ñ term can combine with that system; and so does the b member of the L pair mentioned above, [βolak/βlag-] (the b̄ cluster being [rl]?). On the other hand, the past-tense form [rmuak] 'bit' *rmugs* has [rm] as its initial cluster, not *[βm], which suggests that M, with labiality as one of its exponents, does not, therefore, combine with the b term, thereby avoiding an excess of labiality in its syllable initial; and, of course, if it does not combine with the b term, neither does it combine with the contrasting term b̄. This hypothesis is supported by the WT examples in Jäschke (pp. 424-6), all six of which have the same initial cluster (*rm*) in past-tense and present-tense forms alike: (past-tense) *rmas*, *rmis*, *rmugs*, *rmes*, *rmos*, *rmongs*, not **brmas*, **brmis*, etc.

In that case one would search in vain for a [rm]/[βm] pair of clusters; but the cluster in the past-tense form [rput] 'wither' corresponds to the *brny-* of *rnyid/brnyid* (Jäschke, 195); and this suggests that the phonetic transcription may be mistaken. Other examples in Jäschke also suggest that the Ñ term of this system is one of the phonematic units that the b-b̄ system could be expected to combine with: *rnyed/brnyed* 'get', *rnyog/brnyogs* 'troubled'; and the same is true for Jäschke's *rnang/brnang* 'be checked', if there should turn out to be a corresponding Golok verb lexical item in N.

2. *Occlusive cluster piece; v and v̄ clusters: phonematic system*

The forms in table 1 give examples of three types of cluster that are voiceless throughout, i.e. v̄ clusters (non-v), e.g. [rk]/[Φk], [r(s)t]/[Φt], and [r(s)ts]/[Φts] (with reading-style pronunciation [ʃ]/[Φʃ] for some members of this last type), and of three types of cluster that are voiced throughout, whence v cluster; e.g. [rd]/[βd], [rdz]/[βdz], and [rdz]/[bz], with a reading-style pronunciation [rd]/[βd] for the last. A further v cluster, which includes velarity as a feature, is also to be found in my corpus of material: the [rg] of [rgo] 'to be necessary' (*dgos*), bringing the number of phonematic terms in the v cluster piece to four for verb lexical items: K, T, C, TS; but five phonematic units can be distinguished for noun forms in both v and v̄ sub-categories.

TABLE 5

Cluster	Unit	Example	Gloss	WT
r v	K	[rgon]	solitary place	<i>dgon</i>
	C	[(mdri:rdzəŋa]	Sikkimese	' <i>bras-ljonggs-pa</i>
	T	[rdo]	stone	<i>rdo</i>
	TS	[rdzu:]	moon	<i>zla-ba</i>
	P	[rβi:] [βdavi] (reading style)	serpent	<i>sbrul</i>
v̄	K	[rkje]	neck	<i>ske</i>
	C	[r(e)tsak]	iron	<i>lcags</i>
	T	[rta]	horse	<i>rta</i>
	TS	[rtse:mə] [rtsetmo] (reading style)	play	<i>rtsed-mo</i>
	P	[rfrn] ¹¹ [Φtfrn] (reading style)	cloud	<i>sprin</i>

¹¹ See p. 57, n. 10.

(a) *v clusters*

It would, therefore, be reasonable also to expect something like five members in each of the two sub-categories v and \bar{v} for verb lexical items; and, for the Golok v type of cluster, WT suggests *rbaḍ* 'set on', *sbag/bags* 'soil', *sbam/sbams* 'put together', and others in *sb-*. If there should turn out to be Golok cognates of these, with, presumably, labiality or, alternatively, labio-dentality, somewhere in the initial cluster, it is not to be expected that the b - \bar{b} system will apply to them any more than to the rM - verb lexical items of section (1); but the b - \bar{b} system should apply, of course, to initial clusters containing velarity, i.e. to Golok cognates, if any, of WT *rgal/brgal* 'step', *rgol/brgol* 'dispute', and *rgyab/brgyab* 'throw'.

(b) \bar{v} clusters

The \bar{v} (occlusive) clusters in table 1 provide examples of only three phonematic units; the remaining two that the possible initial clusters in noun forms within this cluster type (table 5) lead one also to expect in verb lexical items comprise $*[r̥t̥e]$ and $*[r̥f]$.

Only two WT entries in Jäschke support the possibility of finding verb examples of the former: *lceb* 'seek death' and *lcog(s)* (i) 'be agitated', (ii) 'be able', both, it should be noticed, with the orthographic initial cluster *lc*; for *rc* and *sc* do not occur in the *ra-mgo* and *sa-mgo* series (in spite of the corresponding *ra-mgo* member *rj*); neither verb is shown as having a past-tense in *b-*.

The possibility that Golok verb examples have the latter initial cluster, $*[r̥f]$, gets greater support from WT: *spub/spubs* 'turn upside down', *spur* 'make fly', *spel* 'augment', and a number of others in *sp-*, *spy-*, and *spr-* (there is no such member as *rp-* in the *ra-mgo* series; and *lp-* is limited to the single entry *lpags* 'skin', a noun lexical item). There are, therefore, good grounds for expecting a further Golok term with a cluster containing labio-dentality, $*[r̥f]$, but much less strong for such a cluster as $*[r̥t̥e]$; both types of cluster would be needed to arrive at a five-term phonematic system for \bar{v} (occlusive) r clusters in verb lexical items to match the attested five-term system for noun lexical items (table 5) and the anticipated five-term system for the contrasting v type of cluster (section (a)).

Powers of combining with b and \bar{b}

Further, one would not expect the b - \bar{b} system to apply to the P member of the system of phonematic units statable for the $r\bar{v}$ type of cluster, if there should be one, any more than for the expected P member of the rv type (section (a)) or the M member of the liquid type of cluster (section 1).

D. WT present-tense verb forms in *brg-*, *bsg-*, *bsng-*, etc.

Finally, the time available for this research was not enough for seeking Golok cognates for WT verbs that Jäschke gives as having such complex clusters as *brg-*, *bsg-*, and *bsng-* not in their past-tense forms but in the present-tense form that he regularly uses as the head word for his verb entries; e.g. *brgyan* 'adorn', *blgo* [sic]/*bsgos* 'soil', *bsngal* 'be faint', *brnya/brnyas* 'forget' (those which have a different past-tense form from the present-tense look especially difficult to account for). It is, however, worth noting that the initial clusters in Golok cognates of WT noun lexical items that also show this degree of orthographic complexity, e.g. *brgya* 'hundred', *brgyad* 'eight', are not more complex than $[bgja]$ and $[βgjat]$. Indeed, I have yet to meet a dialect

that matches in phonetic complexity the orthographic complexity of WT in this respect: my informant for the Balti dialect, for example, was willing to accept either [βgɟat] or [rgɟat] for 'eight', but not *[βrgɟat], in spite of Jäschke's 'Bal. *vrgyad*' (p. xx). It is also noteworthy that the equally complex 'Kham's' form '*vrgyad*' that he gives to illustrate a correspondence with WT *brgy-* (p. xx) is not supported by P. S. Ray's phonemic analysis of two Kham dialects, northern (Kanze) and southern (Batang), in which the northern-dialect cognate of WT *brgya* 'hundred' is given as '/jà/' ('/j/' is realized as a 'postvoiced' 'palatalized apicoalveolar affricated stop') (p. 339).

E. *Further studies*

This article is confined to a study of the Golok (lexical) r cluster and the Golok b and b̄ (grammatical) clusters in as much detail as the limited data allowed, in comparison with WT orthographic forms. If more time had been available, the next step would have been to make parallel studies of the remaining types of lexical clusters in Golok verbs to which the b-b̄ system commonly applies, the g and the n; and this would have been followed by a study of the m cluster, to which the b-b̄ system seldom applies (II.B). Lastly, it would have been interesting to consider the means by which the past tense is formally distinguished from other tenses in Golok verbs exemplifying types of initial cluster to which the b-b̄ system never applies: (i) the b term of the five-term (or, possibly, six-term) lexical initial-cluster prosodic system (II.A), and (ii) the M phonematic unit (II.C.1) and the P phonematic unit (II.C.2).

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