THE MORAIC STRUCTURE OF CLASSICAL TIBETAN*

Lee C. Hogan
Austin, Texas

O. INTRODUCTION

Although Tibeto-Burman has been reconstructed with a phonemic quantity distinction between vowels, e.g., TB *gar ‘leave, abandon’ and *ga:r ‘dance, leap, stride’ (Benedict 1972 #15 and #11), which probably indicates moraic light and heavy syllables, respectively, the Tibetan writing system is, at best, ambiguous concerning phonological quantity distinctions, even though the evidence seems to suggest morae in modern Lhasa Tibetan (Chang and Shefts 1965, Goldstein and Nornang 1978, Hari 1979, and Hogan 1994).

On the negative side, transcription of Indic long vowels and Middle Chinese complex nuclei with both an on-line and a subscript (ढन्ज ‘dogs) ṝ a-chung, as in पुरुष Written Tibetan Sh’akya <shaakya> from Sanskrit sākya and लेि le‘i <le’i> and लेि l’e‘i <lee’i> for Middle Chinese 戀 (K975g) liei: indicates that, even though these orthographic means of indicating a phonological quantity distinction between vowels in monosyllables (and monomorphemes in the case of Chinese) were known to early Tibetan scribes, they were not employed for Tibetan. This seems to indicate that a phonological quantity distinction between vowels in Old Tibetan and Classical Tibetan was not perceived.

On the positive side, loan phonology, transcription of foreign words, and Classical Tibetan orthographic practices do seem to indicate a phonological quantity distinction between vowels. Monguor borrowings from Tibetan dialects indicate long vowels arising from coda loss in Tibetan: Mgr arāwa ~ rāwa ‘hair’ Written Tibetan སྲིལ ral-pa ‘long hair’, Modern Lhasa ree-pa. Transcription of Middle Chinese triphthongs and diphthongs in closed

* This is a continuation, to an extent, of the topic of compensatory lengthening in Modern Lhasa Tibetan in Hogan 1994. This article too depends to a great extent on the work of Sprigg (1987) and Hock (1986).

The following abbreviations are used:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT</td>
<td>Classical Tibetan</td>
</tr>
<tr>
<td>LT</td>
<td>Literary Tibetan</td>
</tr>
<tr>
<td>MC</td>
<td>Middle Chinese</td>
</tr>
<tr>
<td>MM</td>
<td>Modern Mongolian</td>
</tr>
<tr>
<td>WM</td>
<td>Written Mongolian = Classical Mongolian</td>
</tr>
<tr>
<td>L</td>
<td>Modern Lhasa Tibetan</td>
</tr>
<tr>
<td>M</td>
<td>Mongolian</td>
</tr>
<tr>
<td>Mgr</td>
<td>Monguor</td>
</tr>
<tr>
<td>OT</td>
<td>Old Tibetan</td>
</tr>
<tr>
<td>WT</td>
<td>Written Tibetan</td>
</tr>
</tbody>
</table>
syllables seems to indicate a maximum monomorphic syllable in Old Tibetan orthography: 麟 (K975g) Middle Chinese liei: in Li and Coblin 1987:IS.28, 33 is transcribed as both ஬ே இ le’i and ஬ே ഇ l’e’i, the former with a diphthong, instead of the triphthong in the latter, and 經 (K831c) MC kieng in Coblin 1992 (II.413) is transcribed as கே யே யே kyeng and கே யே யே kyang, with the Old Tibetan consonantal glide in the onset replacing the Middle Chinese high vowel of the diphthong in the nucleus, i.e., there were no super-heavy syllables (*VVC) in monomorphic syllables. Within Tibetan, Classical Tibetan double vowels in བྱ བྱ སྔེ སྔེ rde’u ‘little stone > pebble’ (< བྱ བྱ rdo ‘stone’ + སྔེ སྔེ ’u (< སྤྱ སྤྱ bu) diminutive) are written without an internal syllable boundary, བྱ བྱ སྔེ སྔེ tshed, as if they were a sequence of two vowels, a heavy syllable with two vowels, i.e. two morae. Furthermore, Old Tibetan forms with the terminative suffix are often ambiguous, e.g., རྐ རྐ སྤ སྤ gu-du ~ gudu ‘separately’ (Li and Coblin 1987: IX.46 and II.N.49) (= རྐ རྐ སྤ སྤ gud-du), from the root རྐ རྐ gud ‘separation’. This suggests an alternation between a geminate consonant and a first syllable with unexpected short vowel.

Herein arguments will be presented that Classical Tibetan does have structures and processes that indicate mordaic structure.

1. PHONOLOGY OF TIBETAN

1.1 Phonology of Old Tibetan

Old Tibetan (OT) is defined by Li and Coblin (1987:3) as the language of those texts written in the Tibetan language between the development of the script and the spelling reforms during the reign of King གླེང་གི་དབང་པོ་Khri-gtugs-Ide-brtsan, who ruled from 815 to 838 AD. This material includes inscriptions and texts of historical material, medical works, translations from the Buddhist canon, etc.

1.1.1 Orthography

Although the Tibetan script is traditionally believed to have been devised by བློ་མི་སྣི་ཤེས་ Thon-mi Anui-bu based on a Kashmiri prototype, Beyer (1992:41) states that an Indian script found on baked bricks from Gopālpur dated to ca. 500 AD is virtually identical to the Tibetan script.¹ Written Tibetan texts (Old Tibetan), some of which have been dated to the seventh century AD, have been discovered in Tunhuang (Dunhuang) 敦煌 in far western China.²

---

There are two general forms of Tibetan script: སྔ་་་ 'with a head', the horizontal line at the top of the graphs, and སྔ་ 'headless', without the horizontal line. Because the སྔ་ 'dbu-can' form is generally more common in xylographic printing of texts, this form will be the one discussed herein.

All consonant graphemes, other than superscripts and subscripts, indicate an inherent ❯ unless another vowel grapheme is explicit: ས་ is ❯ interpreted as dag due to the ལ་ tshed, vs. ས་ ❯ dga’ with the ས a-chung represented by the apostrophe plus vowel. The explicit vowel indicating the syllable nucleus is always a superscript or subscript to the root consonant: ལ་ས་ ས་ཁ་Collapse: bsakula-ba bsuk-la ‘to extend (perfective)’ (Li and Coblin 1987:XI.9) and ལ་སྐ་Collapse: bskrugsa-ba bsukungs-pa ‘to mix (perfective)’ (Li and Coblin 1987:VI.16), and ས་ཁྱུ་Collapse: ’akhrugs-pa ’akhrugasa-pa ‘khrugs-pa ‘disorderly’ (Li and Coblin 1987:IIS.37). There is obviously a great deal of language-specific knowledge of Tibetan phonotactics and syllable structure inherent in the orthography and orthographic practices.

1.1.2 Segmental phonemes

According to Beyer (1992:55ff), Old Tibetan (OT) had the following phonemes: p ph b t th d k kh g ?, ts tsh dz tsh dz, s z s z h, m n n y, l r, y w, i e a u o o. The symbol r is classified as a retroflex in his consonant chart (Table 5). The a-chen མ is transcribed as the glottal stop plus vowel. To this is added the barred མ as used in Li and Coblin 1987, which represents the མ ‘gi-gu inverse’ of Miller, who describes it as “a high open unrounded vowel [I]” (Miller 1976:xcviii). A length distinction between vowels is not mentioned in either work; although Beyer (1992:71) lists complex nuclei oi, ai and eu in open syllables and gives examples of vowel coalescence of two and three vowels in closed syllables resulting from the suffixes ཨ ang ‘also’ and ས༔ ’am ‘or’: ལ་པ་ang (noun and verb suffix), ས༔ ’po’ang (noun suffix), and ས༔ ས༔ ’rta’am dre’am be’u’am ’bri’am ‘horse or donkey or calf or yak-cow or ...’, all being complex words of two or three morphemes without internal ལ་ tshed.

---

3 Ref. Röna-Tas 1985:183ff for a discussion of the Tibetan script, especially pp. 279ff for examples of older forms of the script.
4 Beyer (1992:69ff) also discusses the evolution of Proto-Tibetan diphthongs *ua > OT o and *ie > OT e/ya.
1.1.3 Syllable structure

In Old Tibetan, the possible positions for the dbyangs-yid vowels (V) and dsal-byed consonants (C) are:

\[
\begin{array}{cccccc}
V & C_2 & C_1 & C_3 & C_5 & C_6 \\
C_4 & \end{array}
\]

Traditionally, the central consonant \(C_3\) is known as the radical; the superscript \(C_2\), the pre-radical; the subscript \(C_4\), the post-radical; and the initial consonant \(C_1\), the pre-pre-radical. The final is \(C_5\) and the post-final, \(C_6\). According to Beyer 1992:42ff, the pre-radicals are \(r\), \(l\), and \(s\), which are historically derivational in nature, and the pre-pre-radicals, \(g\), \(d\), \(b\), \(m\), and ' (i.e. a-chung); of these latter, all but \(m\)- occur as verb inflections in some functions, i.e., they are possibly transparent prefixes throughout OT and, at least for some dialects, Classical and Modern Tibetan. The post-radicals are the glides and the liquids: \(y\), \(w\), \(l\), and \(r\). The finals are \(b\), \(d\), \(g\), \(s\), \(m\), \(n\), \(\eta\), \(r\), \(l\), and 'a-chung. The stops written as voiced, <b>, <d>, and <g>, do not contrast with voiceless stops <p>, <t>, <k> as syllable finals. The post-finals are only two: \(s\) and \(d\), again verb inflections in some functions, the latter, according to Beyer 1992:49f fn. 12, being the \(\text{da-drag}\) an allophone of the former. Thus, the verb \(\text{skye-ba}\) ‘to be born’ has the perfective \(\text{skyes-pa}\) (Li and Coblin 1987:V.13), \(\text{sgrung-pa}\) ‘to mix’, the perfective form \(\text{bskrungs-pa}\) (Li and Coblin 1987:VI.16), and \(\text{gyur-ba}\) ‘to change’, the perfectives \(\text{gyur}\) and \(\text{gyurd}\) (Li and Coblin 1987:IE.28 and IE.50, respectively). Thus, the monomorphic syllable was tautosyllabically \(<V>\) as in \(\text{skye-ba}\) or \(<VC>\) as in \(\text{sgrung-pa}\); all codas of two consonants were at least bimorphemic as in \(\text{bskrungs-pa}\).

It has been recognized, at least since Laufer 1914:84ff, that OT codas and preradicals were in the process of being lost as early as the ninth century. Middle Chinese transcription of OT names and titles seems to indicate that some codas and preradicals were already lost, at least in the dialect on which

---

5 Tibeto-Burman is not reconstructed with final voiced stops. Furthermore, LaPolla (1994) argues for the Old Chinese reconstructions of Baxter 1992 and reconstructed Sino-Tibetan without final voiced stops. In radical underspecification, as discussed in Kiparsky 1995:646, the stops \(p\), \(t\), \(k\) are not specified for [+/- voice]. A subsequent rule would spread voicing if necessary: [ ] \(\rightarrow\) [+voice] / [+voice] ( +voice]. A default rule would specify [-voice] for those segments not specified as [+voice].

6 Rôna-Tas (1985:173f) derives the present tense -s and -d suffixes from *-d, with *-s representing the perfect. Ref. also Wolfenden 1929:56ff.