THE PHONOLOGY OF THE GRAMMATICAL CONSTITUENTS 
OF VERBAL-PHRASE WORDS IN SPOKEN TIBETAN 
(LHASA DIALECT)

Thesis submitted for the Ph.D. degree 
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by 
Richard Keith Sprigg

School of Oriental and African Studies 
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Abstract

The thesis is a study of certain phonetic, phonological, and grammatical aspects of the Lhasa dialect of Tibetan as spoken by Rinzin Wangpo. For this purpose such phonetic criteria as there are for distinguishing Words are first stated; after which, the Phrase unit is distinguished. Criteria are adduced for distinguishing those grammatical categories, (Verb, Verbal Particle) which supply the characteristic grammatical constituents of Words comprised in the Verbal Phrase. All lexical items that can be classified as Verb-constituent (or Verb) lexical items, and as Verbal-Particle-constituent (or Verbal-Particle) lexical items are then subjected to phonological analysis: they are classified prosodically in accordance with the prosodic types of Word or Piece in which each can be exemplified; and then such of the phonetic data as remain to be accounted for after the prosodic analysis has been completed are stated as exponents of terms in phonematic systems. The thesis is, therefore, restricted to the Verbal Phrase, except that, where Verb-constituent lexical items are exemplifiable in the Noun Phrase, (in Nominalized forms and in certain disyllabic Nouns), it is necessary, in order that the phonetic and phonological description of these lexical items shall be complete, to go outside the Verbal Phrase.
0: INTRODUCTORY
The aim of this thesis is to give a phonological description of one of the dialects of contemporary spoken Tibetan within the framework provided by the categories that have been established in order to deal with the Grammatical Constituents of Words in that dialect. The dialect chosen for this purpose is the Lhasa Dialect, or Lhasa Tibetan (LT);¹ and the description is based on utterances in it of Rinzin Wangpo (rig-'dzin dbang-po) (R.).²

¹ Grounds for the use of the term 'Lhasa Dialect' are given at p.9.
² For the transliteration used in this thesis see App. I, pp. 665-8.
01. Rinzin Wangpo
R. was employed as a Research Assistant by the School of Oriental and African Studies for the period November, 1948 -- August, 1949, in London, and for the further period October, 1949 -- March, 1950 in Kalimpong, West Bengal. His family background and life history are as follows: He was born in Lhasa in 1920 (lča-sprer). His father, who was from northern Tibet, died before R. was born; and he was brought up by his mother and grandmother, both of them being of Lhasa, in Lhasa itself. In 1930 R. was sent to the school of snang-shag em-drung ris-'dzin lhun-'grub dpon-'byor lags at smon-grub shar for two years; and, subsequently, after a year as a monk at cmas-chung grwa-tshang, returned to school, at nyag-rong shar, for a further three years. He left it in 1935 having reached the rphan-bdag class, and become head boy (rgan-mgo). There followed two years in the service of the sku-nseo bla-phyag, after which he studied Tibetan painting for a month or two. Then, leaving Lhasa, he combined a pilgrimage in Tsang Province with a visit to relatives in Kalimpong, where he stayed about a year. On his return to Lhasa he taught for about a month in the Chinese Government School, and then spent about a year as a clerk in the Treasury at Norbu Lingka. Early in 1943 he began a five-year course of study that included the Tibetan grammatical works
known as the sum-rtags, as the pupil of a well-known Tibetan scholar, tsha-sprul rin-po che. On completing the course, in 1947, he went a second time to Kalimpong; and, until he left for the United Kingdom (November, 1948), remained there helping his uncle, the Rev. G. Tharchin, with publishing the Tibetan Newspaper, yul-phyes so-so'i gsar-gyar me-long.1

From this account of his education it will be seen that not only was R. literate in Tibetan but he was also a scholar in the fields of traditional Tibetan grammar and orthography.

In addition to LT, R. claimed some knowledge of a dialect of western Tibet (his uncle, the Rev. Mr. Tharchin, was from Western Tibet); he also spoke a little Hindi, could read a little Chinese, and in the course of his ten-month stay in the United Kingdom learnt a little English; but this thesis does not of course deal with his non-Tibetan utterances; nor does it deal with utterances in which he attempted to give examples of the pronunciation of Tibetan dialects other than the Lhasa (i.e. those of

1 A detailed account has been given of R.'s education and of his visits to Kalimpong because of an erroneous published statement that he was at school not in Lhasa but in Kalimpong, and that he therefore spoke not LT but some other Tibetan dialect (see R. Miller, 'The Independent Status of the Lhasa Dialect in Spoken Tibetan', Tōhōgaku 10, 1955, 142).
western Tibet and of the Tsang province of central Tibet.
02. The Lhasa Dialect (LT)
The use of the term 'Lhasa Dialect' for the dialect spoken by R. requires some justification: it may be that the Tibetan spoken in Lhasa is not distinguishable from the Tibetan spoken in U (dbus) Province, the province in which Lhasa is situated; in which case it would perhaps be preferable to substitute the term 'U Dialect' (dbus-skad) for 'Lhasa Dialect' in the title of this thesis.\(^1\) R. however claimed to be able to recognize a difference between the U Dialect, as spoken by my servant, Thubden, whose home was about twenty miles from Lhasa, and the dialect spoken by himself and Lhasa residents generally (lhas-sa rang-qi skad).\(^2\) There is therefore some slight evidence in

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\(^1\) The Tibetan spoken in Lhasa is ascribed to the U Dialect by the following: George N. Roerich and Tse-trung Lopsang Phuntshok, Textbook of Colloquial Tibetan, Government of West Bengal, 1957, v; Herbert Hannah, A Grammar of the Tibetan Language, Calcutta, 1912, vi.

favour of drawing a distinction between the Tibetan of Lhasa and the Tibetan of U; and further, since R.'s Tibetan was unquestionably of the type spoken in Lhasa, whether distinguished from the Tibetan of the rest of the province or not, it has seemed safer to refer to it as the Lhasa Dialect or as Lhasa Tibetan (LT).

Terms such as 'Central Tibetan' and 'dialect of Central Tibet',¹ which have been used to cover the Tibetan spoken in the two provinces of U and Tsang, have been rejected: by the end of three weeks' residence in Gyantse (May, 1950) I was easily able to distinguish the Tsang Dialect, as spoken there, from R.'s Tibetan; and it was clear that statements made for e.g. the Tsang Tibetan of Gyantse at the phonetic, phonological, and grammatical levels² would not be consistent with the statements made

¹ For these terms see H.A. Jäschke, Tibetan-English Dictionary, London, 1934, x, xv; see also C.A. Bell, C.M.G., C.I.E., Grammar of Colloquial Tibetan, 3rd. ed., Alipore 1939, vi.

below at these levels for R.'s dialect.\(^1\) Utterances, for example, such as \textit{la bc}:\(^2\) (LT \textit{la re}, \textit{la red}), 'yes, it is', \textit{la mo:bc}: (LT \textit{la mare}, \textit{la ma-red}), 'no, it is not', and the use of a Verbal Particle \textit{le} in polite-style utterances, e.g; \textit{nangilajoe:ne} (LT \textit{nangijoe:ne}, \textit{gnang-gi-yod-na}, 'is he making'), enabled me to identify

\(^1\) As far as the Tibetan of Gyantse and Lhasa are concerned therefore, it would not be possible to satisfy the conditions proposed by W.S. Allen for treating composite material as a single corpus (W.S. Allen, 'Aspiration in the Harauti Nominal', \textit{Studies in Linguistic Analysis}, Oxford, 1957, 68-87). This objection, that the Tibetan of Lhasa (and probably also that of U) is too different from that of Tsang for common phonological and grammatical statement, applies equally to the title of the Rev. P.M. Miller's article, 'The Phonemes of Tibetan (U-Tsang Dialect) with a practical romanized orthography for Tibetan-speaking readers' (\textit{Journal of the Asiatic Society, Letters}, XVII, 1951, No.3, 191-216); but Miller's examples, the title notwithstanding, are consistent with R.'s dialect and inconsistent both with my own experience of the Tsang Dialect in Gyantse, with the specimen of Tsang Dialect published by Roerich and Lopsang (\textit{Textbook}, 167-70), and with Chin P'eng (Tsang-wü). Miller's informant, though born in Shigatse (Tsang Province), would seem therefore to have suppressed his native dialect in favour of the Tibetan of Lhasa.

\(^2\) For the phonetic transcription, indicated by red ink, see Appendix I (pp. 669-71).
Tsang-Dialect speakers both in Gyantse and elsewhere.¹

LT differs from other Tibetan dialects in that it is unquestionably the prestige dialect of Tibet.²

In particular it is associated with the Official (sku-drag) class, and therefore with the nobility. Many noble families have houses in Lhasa, and are educated there. By no means all of the Monk Officials are members of the noble houses; but many will nevertheless have spent some years at one or other of the Lhasa monasteries, and will have discarded their local dialects for LT. LT is thus to be heard in all districts under Tibetan administration; and people who regularly speak some other dialect nevertheless understand it, and will attempt to speak it should circumstances require them to do so. Even beyond the frontiers of Tibet in the parts of Nepal inhabited by people of Tibetan stock, including

¹ My recollections of the Tibetan of Gyantse are in exact agreement with the specimen of Tsang Dialect referred to above (Roerich and Lopsang, Textbook, 167-70). The most recent work to deal with the Lhasa and Shigatse dialects (Chin P'êng, Tsang-wû La-sa Jih-k'o-tsê Ch'ang-t'u hua-ti pi-chiao yen-chiu) amply illustrates the impossibility of making identical phonetic, phonological, and grammatical statements for Tibetan of Lhasa (U) and Shigatse (Tsang).

² Pemba, Young Days, 76: '--- chattering away in their Lhasa accent, the "Oxford Accent" of Tibet'; Bell, Grammar, vi: '--- it was necessary to select the dialect most widely spoken, and that of Lhasa has been chosen accordingly. It is not only the dialect of the Central Province but may be said to be also the lingua franca of the whole of Tibet. It is more generally spoken than any other, and is recognised as the most correct form of speech by all.'
the Sherpas, LT is widely understood, especially by monks, and often attempted. To cite my own experience, I have heard it used on occasions by the local people of Gangtok (Sikkim), Yatung (Chumbi Province), Phari, and Gyantse (Tsang Province), by speakers of the Sikkim, Kham, and Ladakh dialects in Kalimpong (West Bengal), and by educated Sherpas at Namche Bazaar and Thyangboche (East No. 3, Nepal).

R. was not a nobleman; but he had attended the same school as members of the noble families.¹ With one exception Tibetans from Lhasa told me that he was a representative speaker of the Tibetan of Lhasa. This one exception thought that R.'s Tibetan had some Chinese characteristics. Others described his Tibetan as bookish; and R. himself claimed that in conversation with Tibetans of his own educational standing he made his LT utterances as much like Classical (or Literary) Tibetan as he could:

03. Reading and Spelling Styles
The thesis does not deal with all of R.'s utterances; and indeed certain of them have already been excluded from consideration here on the grounds that they are not in his native language or his native dialect (p. 6). The material under study is now to be further restricted by the exclusion of others of R.'s utterances that, although native to him, are not in LT: his utterances in the Reading Style and the Spelling 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.

Considered briefly in the light of analysis in terms of Firth's theory of distinct but congruent levels (Situational, Grammatical, Phonetic, etc) R.'s utterances in the Spelling and Reading Styles may be distinguished from his LT utterances by such criteria as the following.\(^1\) At the Situational Level one of the types of situation to which Spelling-Style utterances are appropriate is that in which children are taught reading and writing by making them chant in their correct order the names of the letters and parts of letters of which orthographic

\(^1\) For Firth's theory of Levels of Analysis see p.x, note 2.
syllables are composed. The participants will be children and a teacher, who may or may not be a monk; relevant objects will be bamboo pens and wooden slates smeared with charcoal or wax, and with examples written on them in one of the dbu-med scripts; a relevant place will be the courtyard of a house or monastery; a usual time for this sort of situation is the early morning before the first meal of the day. Spelling-Style utterances in this type of situation are not so much spoken as chanted, by the children and teacher in chorus or in unison.

Another type of situation appropriate to the Spelling Style and not uncommon is that in which homophonous words and syllables are identified by differences in spelling. The characteristics of this type of situation are less distinctive than those of the school type: the participants may be of any age after about seven years, though they must be at least partly literate; no details of time and place may be specified; chanting is not used.

1 The main categories suggested for analysis at this level are: 'A. Relevant features of participants: persons, personalities (i) The Verbal Action of the Participants (ii) The Non-Verbal action of the Participants. B. Relevant Objects. C. The Effect of the Verbal Action' (J.R. Firth, 'Personality and Language in Society', Sociological Review, 1950, 43).
The Reading Style, on the other hand, is appropriate to those types of situation in which a book is present and the speaker reads aloud from it (he may be the sole participant); in which no book is present, but the speaker recites passages learnt by heart at some other time; or in which prayers are recited, whether originally learnt from a book or from oral instruction. This style may also be used in introductions, when people meeting for the first time tell each other their names; e.g. R. always used the Reading-Style pronunciation wa:po (dbang-po) for his own name, but by others he was sometimes referred to as 9o:bu, or 9o:ngu.

There is one feature that both Reading and Spelling Styles have in common: they are in all cases directly or ultimately referable to written texts, and therefore, with rare exceptions, to Classical Tibetan (the spoken dialects, of Lhasa, Tsang, Ladakh, etc., have no recognized written form). ¹

At the Situational Level R.'s LT utterances are best defined negatively as being appropriate to all types of situation other than those stated above for the Spelling

¹ The extent to which LT can be considered to be written is discussed at Appendix II (pp. 677-80).
and Reading Styles.

It is not only at the Situational Level that LT may be distinguished from the Reading and Spelling Styles: very different statements would need to be made for R.'s utterances in LT and in these two Styles at the Lexical, Grammatical, Phonological, and Phonetic Levels also.

At the Lexical Level the vocabulary statable for the Spelling Style considered in isolation from the Reading Style would be found to be very limited: it would comprise only the names given to letters, parts of letters, and combinations of letters; e.g. \( \text{gsal-byed sum-cu} \), 'the thirty radicals'; \( \text{ka, 'ka'} \) [the first of the thirty radicals]; \( \text{ga'u, 'little ga'} \); \( \text{sa sla-btags, 'sa sla-joined.'} \)

The collocability of these words would also be very limited, and their order in utterances fixed. The vocabulary of a Reading-Style utterance on the other hand would merely reflect the vocabulary of the written or printed text that was being read or quoted. Part of this vocabulary would be confined to, and would therefore provide criteria for, the Reading Style; but some items might be considered to be common to R.'s Reading-Style and LT utterances alike. It would not however follow that the collocability of any such 'common' items would be the same in both LT and Reading Style.
following words might, for example, be cited as criteria at the Lexical Level for the Reading Style and LT:

<table>
<thead>
<tr>
<th>Reading Style</th>
<th>LT</th>
</tr>
</thead>
<tbody>
<tr>
<td>legs-pa</td>
<td>yag-ro/yag-go 'good'</td>
</tr>
<tr>
<td>lam</td>
<td>phebs-lam, lam-ka 'road'</td>
</tr>
<tr>
<td>mdzad-pa</td>
<td>cmang-ba/cmang-nga 'to do'</td>
</tr>
</tbody>
</table>

Some styles of LT have more in common lexically with the Reading Style than others: in literary discussions it was R.'s avowed aim to introduce into his LT utterances Classical-Tibetan lexical items; and this style of LT would therefore resemble the Reading Style more than some of his other LT styles, though even in other styles his use of items of vocabulary that would by other LT-speakers be considered criteria of the Reading Style earned him the criticism that his LT was bookish. One such item was ha-cang, 'very', the usual LT form being zhedrag; c.f. also nang-du (LT nang-la), ma tshang-bzhin, (LT ma tshang-nas), sku-zhabs (LT sku-zhog), sngon-la (LT sngas-la).

From the standpoint of grammatical analysis it would not be possible to distinguish grammatical categories at all for Spelling-Style utterances considered in isolation from the Reading Style; the uniform grammatical behaviour of the words comprising such sentences as the following
would require that they all be classed together:

*ka watsur ka:* *ka wa-sur kwa* \(\rightarrow\) 'ka wa-corner kwa'.

*la lapta la:* *la lha-btags lha* \(\rightarrow\) 'la lha-joined lha'.

*phu sa gapta ga rata dra chiku drik kha:* *sa:* *drik*.

*ba'u sa sga-btags bsgra ra-btags bsgra gi-gu bsgrig sa sa bsgrigs.*

'little-ba sa sga-joined bsgra ra-joined bsgra gi-gu ['i' vowel] bsgrig ga sa bsgrigs'.

Grammatical categories would however need to be distinguished in an analysis confined to Reading-Style utterances; and these categories would be parallel to whatever categories were established for Classical Tibetan. Reading-Style grammatical categories might well be the same in number as LT grammatical categories (Verb, Noun, Adjective, etc.), with homonymous categories established by similar criteria though with a difference in detail; e.g. a type of formal scatter might be made a criterion of Verb categories in both LT and Reading Style; but the two-term formal scatter of the LT Verb with translation meaning 'send', based on *ji:gi* *tangs* *tangl* *du:*, *yi-* *ge* *btang/ston* *gi-* *'dug*, 'he sends a letter'; *ji:gi* *t5:si*, *yi-* *ge* *stong* *shig*, 'send a letter', would contrast with a three-term Reading-Style formal scatter for the Verb 'send' (with a four-term orthographic scatter: *stong*, *btang*, *gtang*, *thong*, of which *btang* and *gtang* are not phonetically distinguished).
LT and Reading Style would also differ in the membership of their homonymous categories: forms go/ngo/do/no/bo/′o/ro/lo/so/to and cing/zhing/shing would need to be recognized for Reading Style Tibetan, and assigned to the Verbal-Particle category; such a statement could not stand for LT too, except that it would be necessary to recognize, and assign to a Verbal Particle category, a form shing/zhing to account for such words as R.'s rather bookish byas-shing, 'therefore', 'which having been done', and ma tshang-shes [sic, for zhing], 'not having been completed'.

034. Phonetic and phonological analyses of R.'s Spelling- and Reading-Style utterances would give rise to different statements from those presented below for LT.1 Either of

1 Cf. also Yu Dawchyu and Dr. Jaw Yuanren (Y.R. Chao), Love-songs of the Sixth Dalai Lama, Peiping, 1930, 198: 'The pronunciation recorded in this book does not represent the pronunciation used by Mr. blo-bzang-sang-rgyas in his ordinary speech. It is the habit of Tibetans -- -- 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. -- -- in the following table, I give the transcription of those words as they are pronounced in ordinary speech.'

Similarly Bell, Grammar, vii-viii: 'Where the pronunciation of the literary and spoken form of a word is the same, the literary form alone is given, since the sole object of entering the spoken form is to show the exact pronunciation of the word.'
these styles may be identified, and distinguished from LT, by the phonetic criteria given in the following paragraphs.

0341. Such Word-final features as the following are characteristic of the Spelling-Style:

I. dentality  \( \text{tn} \)

II. (velarity + nasality)  \( \text{n} \)

III. laterality  \( \text{ll} \)

e.g.

I. \( \text{pha naru ph\text{\textprime}t\text{\textprime}a: ph\text{\textprime}t'} \) \hspace{1cm} \text{bod} \quad \text{"Tibet"};

II. \( \text{kh\text{'\textacute{u} da: na: d\text{\textprime}n} \) \hspace{1cm} \text{gdan} \quad \text{"mat"};

II. \( \text{tSh\text{\textprime}a S\text{\textacute{b}cu tSh\text{\textprime}u n\text{\textacute{a}: tSh\text{\textprime}u} chung} \) \hspace{1cm} \text{chung} \quad \text{"small"};

III. \( \text{th\text{\textacute{u} na S\text{\textacute{b}cu n\text{\textacute{y}l la: n\text{\textacute{y}l} \text{\textprime}a: n\text{\textacute{y}l}} \) \hspace{1cm} \text{d\text{\textacute{g}\text{\textacute{u}l}} \quad \text{"silver"}.2

Since the above three phonetic features are characteristic of the Spelling Style alone, they may be cited as criteria of that style.

1 Foreign words have been excluded from these criteria; e.g. \( \text{l\text{\textacute{e}nd\text{\textacute{r}n}, l\text{\textacute{e}nd\text{\textacute{r}n}, 'London'}; l\text{\textacute{g}g\text{\textacute{d}z\text{\textacute{a}r}, l\text{\textacute{g}g\text{\textacute{d}z\text{\textacute{a}r, 'lecture'}; j\text{\textacute{u}n\text{\textacute{i}v\text{\textacute{a}si\text{\textacute{t}\text{\textacute{i}i}, v\text{\textacute{u}-n\text{\textacute{a}-p\text{\textacute{a}-s\text{\textacute{a}-t\text{\textacute{\textprime}i-t\text{\textacute{\textprime}r}, 'University'.}

2 I have followed Eugénie J.A. Henderson ('Prosodies in Siamese', Asia Major, 1, Pt. 2, 190) in using (') as a phonetic symbol for closure without plosion, i.e. a stop, as opposed to a plosive. There is no symbol for this feature in the I.P.A. chart.
As an example of a Word-initial criterion of the Spelling Style the following may be cited; though it does not apply to open-vowel, and half-open back-vowel, Syllables:

labiovelaritity

\[ \text{tha} \text{u} \text{w} \text{a} \text{ } \text{sa} : \text{w} \text{y} / \text{wy} : \text{d} \text{bus} \text{u} \text{ } \text{U' [Province]} ; \text{d} \text{bu} \text{ } \text{head}; \text{d} \text{bon} (-\text{po}) \text{ } \text{nephew}. \]

03422. The Word-final and Word-initial features given above distinguish the Spelling Style from both the Reading Style and LT. There are also features that distinguish the Reading Style from LT; but, unlike the Spelling-Style criteria above, they are not absolute: they apply equally to the Spelling Style, and may be regarded as joint criteria, of both the Spelling and Reading Styles as against LT. These joint criteria include the following Word-initial (03421) and Word-final (03422) features:

1 This qualification serves to exclude such LT words as: (dindre:) \text{wang} \text{i}, \text{de-'drag} \text{dbang-gi, 'under the influence of (such things as these)}; \text{wom} \text{u}, \text{wa-mo 'fox'}; \text{wa-phrug, 'fox cub'. dbang has a labio-velar initial (w) in Reading Spelling Styles, and also in LT, but with a glottal-plosive (?) alternative in LT (?5:)}.\]
Word-initial Features

In Inter-verbal, but not in Intraverbal Junction (pp. 42-5), the following sequence of phonetic features is a criterion of both the Spelling and Reading Styles as against LT:

\[
\begin{align*}
\text{plosion: } & \quad \text{mb nd ng} \\
\text{nasality + } & \quad \text{affrication: ndz ndz ndr} \\
\text{friction: } & \quad \text{nz}
\end{align*}
\]

(nz and ndz seem to be in free variation); e.g.

1. Spelling Style

\[
\begin{align*}
\^u \text{mba: pha: mbxp} & \quad ' \text{bab 'descent'}' \ (G. \ and \ R.); \\
\^u \text{ndza: ma: ndzam} & \quad ' \text{jam 'soft'}' \ (" " " ); \\
\^u \text{nza: kha: nzak} & \quad ' \text{dzag 'leak'}' \ (" " " ).
\end{align*}
\]

2. Reading Style

\[
\begin{align*}
\text{n\text{ndriga}} & \quad \text{bsgrigs-ka 'in order to arrange'}; \\
\text{n\text{de}} & \quad ' \text{dir 'here'}'; \\
\text{nd\text{ndrd}} & \quad \text{gdan-'dren 'invitation'.}
\end{align*}
\]

Word-final features:

1. (velarity + closure): \( k \); 

iii. glottality: \( ? \); 

iii. alveolarity: \( r \).\(^1\)

\(^1\) In general \( r \) has been used to symbolize alveolar apical friction (I.P.A. \( \ derecho \)); but in this and the following paragraph it is necessary to distinguish this type of sound from a rolled type of sound (I.P.A. \( r \)); and \( \ derecho \) and \( r \) have their I.P.A. values. Word-final \( \ derecho \) is an infrequently recorded alternative to \( r \).
E.g.

i. Spelling: ma chiku mi: kha: mik' mik 'eye'
   Reading: pʰjik' par-vig 'sort' (printing).

ii. Spelling: a naru wə: sa: wə? 'os 'suitable';
   Reading se? zhes 'named'.

iii. Spelling: ma: ja: mar
   Reading: duabar 'dra-par 'portrait'.

In the Spelling Style there is an alternative
feature to " for the same lexical items: long duration
of vowel (ː); e.g. wə?/wəi, 'os. R. preferred the
latter (ː), but not infrequently used the former ('?').
Of the two only the former ('') may be stated as a phonetic
criterion of the Spelling and Reading Styles.

In the Spelling Style '?' and : are phonetic
interpretations of orthographic -s ('os, zhes, dbus, etc.)
and never of -d or -g, which are phonetically interpreted
as t' and k' respectively; but in the Reading Style '?'
has been recorded as an occasional phonetic interpretation
of -s, -d, and -g alike (e.g. laxsø', lag-bzos, 'hand-made';
ʃə', bṛgyad, 'eight'; tho?!, thog, 'top'), though the
more frequent phonetic interpretation of all three in this
style is long duration of vowel (ː).

These and other phonetic differences between the two
Styles and LT cannot be ascribed merely to differences of
phonetic exponent: the phonematic systems set up to account for these phonetic differences at the Phonological Level would not all be the same for LT as for the Styles.\(^1\) Thus the distinction between Word-final \(\text{'t}\) and \(\text{t}'\) in the Spelling Style would require the setting up of two phonematic \(-C\) units in the relevant prosodic types of syllable, while the absence of any such phonetic distinction in LT would make an identical statement impossible for LT.\(^1\)

Differences between LT and the Spelling and Reading Styles are not further referred to in the text except for footnotes drawing attention to occasional non-LT pronunciations in the examples.

\(^1\) For the distinguishing of prosodic and phonematic categories of analysis at the Phonological Level see J.R. Firth, 'Sounds and Prosodies', *TFS*, 1948, 127-52.
Levels of Analysis
In the preceding section (Reading and Spelling Styles) the Situational, Lexical, Grammatical, Phonological, and Phonetic Levels have been mentioned; and all have been drawn upon for criteria to distinguish LT utterances from Spelling- and Reading-Style utterances. From this point however only three of the Levels are directly relevant to the aim of this thesis (the Phonetic, Phonological, and Grammatical); and it is in terms of the categories of these three Levels alone that subsequent material is stated. The fact that the examples given are taken from recordings of R. in conversation with other Tibetans, or that they were accepted by R. in the course of his work in London, is however a guarantee that they would be valid forms for analysis at the Situational and other Levels also.
05. The Grammatical Constituents of Words
The Grammatical Constituents of Words (or, more briefly, Word Constituents) referred to in the title of the thesis are the subsidiary units into which Words are here divided in order to give both the most economical, and at the same time a complete, grammatical account of Word structure in LT.¹ There are five principal grammatical categories in terms of which Word Constituents may be classified: Verb (Vb.), Noun (N.), Adjective (Adj.), Postposition (Post.), Particle (Part.).

There are Words in LT in which the Word Constituent is co-extensive with the Word; and such Words thus comprise a single Word Constituent; but the grammatical analysis of many Words requires that Constituents classifiable as members of different grammatical categories be distinguished within the Word; and in such Words several Constituents need to be recognized; whence the necessity of making not the Word but the Word Constituent the primary unit of grammatical classification.

In Words of only one Constituent that Constituent is classifiable as a member of one of the five grammatical

¹ For the phonetic criteria of the delimitation of Words, see section.
categories Verb, Noun, Adjective, Postposition,
Particle; e.g.
vin-na'i mi (mi) gcig-gi (tšik) ka-lon (kalč:) sbug-la
[yar] mthar-phyn (thːdʒː:) sba-bu (bːp) lags-kyi
['di-'dras-se] skyon (cː:) byas-vod.¹

'But a man up in Kalimpong --- Tharchin Babu has done
printing like this.'²
Vb.: skyon; N.: mi, ka-lon, mthar-phyn, sba-bu;
Post.: gcig-gi.¹

gzuga-po (sugbu) bde (ndɛ)³ thag-chod (thadʒː:) vod (jɛ).
'I am very well, thank you.'
Vb.: vod; N.: gzugs-po, thag-chod; Adj.: bde.
de-nas chibs-bsgyur (tʃʰiβjuː:) ma (ma) gmang-tsang, nga-ra'i
blo (lɔ) pham-po ra[-po] zhe-drag (ʃiдра) byung (tʃʰuː:).
'Then, since he is not coming, I am very sort-of upset.'
Vb.: byung; N.: chibs-bsgyur, blo, zhe-drag; Part.: ma.

¹ P. has here written gcig-gi for the tšik of the recording
in order to bring it into apposition with lags-kyi.

² In the translation pause is indicated by a dash (---);
'---' indicates an interruption.

³ LT ɗɛ.
Any word that comprises a single Constituent is therefore designated e.g. Verb-Constituent Word, Noun-Constituent Word, Particle-Constituent Word (or, more briefly, Noun Word, Verb Word, and Particle Word), to indicate that it comprises only one Constituent, and that that Constituent is classifiable as a Noun, a Verb, a Particle, etc., as the case may be.

Frequently, however, more than one Grammatical Constituent must be distinguished in the composition of Words; and it may then become necessary to cite two Grammatical categories in order to account for the structure of these Words at the Grammatical Level. Such Words as these, in which more than one category is exemplified, may be designated, according to the Grammatical categories to which their Constituents are assigned, Verb-and-Particle (Vb. + Part.), Noun-and-Particle (N. + Part.), Adjective-and-Particle (Adj. + Part.); Postposition-and-Particle (Post. + Part.); e.g. ¹ shog-po de-las-yang (dilejā:) ma-gzhi da da-rin kha-sang [-yang (khsā:jā:) shog-po] 'phral de zhe-po (jibu) rang sprād dgo-gi-mad (gugme:) gro.

¹ At the Grammatical Level '+' symbolizes 'colligated with'.

'For this paper too --- these days too, actually, I suppose they must not give very much of it --- the paper --- at present.'

(Vb. + Part.: dgo-gi-mad; N. + Part. kha-sang[-yang], Adj. + Part.: zhe-po; Post. + Part.: de-las-yang.

[da-ga nang-bzhin nga-rang-'tsho (ṭaranzu) bod-la (phöle) phan-pa'i] (phemba:) slab-dgra-tshog-la (lbradzula) phan-pa'i-yang (phemba:jä:) rgyal-blon bstan-bcos zer-[nyan (sepé:) 'di par] sna-tshogs par-bkos ra-po (rybu) mngag-zhag (nä:ja)."

"In precisely the same way, it is to Tibet's advantage, and to the advantage of the schools too, that we have made sort-of printings of the "Rgyal-blon Bstan-bcos", etc.'

Vb. + Part.: zer-nyan, mngag-zhag; N. + Part.: nga-rang-'tsho, bod-la, phan-pa'i, slab-dgra-tshog-la, phan-pa'i-yang, Adj. + Part.: ra-po;

It will have been observed that in each of the four types of Word that comprise more than one kind of Grammatical Constituent (Vb. + Part., N. + Part., Adj. + Part., Post. + Part.), the Particle category is represented; in fact the Particle category is the only category that is colligable with any other category within Word limits. In these two respects the Particle category
differs from the other four grammatical categories (Verb, Noun, Adjective, Postposition).

Another respect in which the Particle category differs from the other categories is that for an adequate grammatical description of Word Constituents subcategories of Particle have to be recognized according to the type of Phrase in which each is comprised. These sub-categories are five in number: Verbal (Vbl.), Nominalizing (Nomzg.), Nominal (Nom.), Adjectival (Adj.), Clausal (Cl.). The Verbal and the Nominal are so termed from the fact that they are restricted respectively to the Verbal and to the Nominal Phrase. Within Word limits the Verbal-Particle is colligable only with the Verb category, the Nominal-Particle with the Noun, Adjective, and Postposition, categories, also with the Verb and with the Nominalizing sub-category of Particle where both of these are represented in the same Word, and with the Adjectival sub-category of Particle. The Adjectival sub-category is restricted to the Adjectival

1 The case for distinguishing sub-categories of Particle rather than establishing additional grammatical categories is put at pp. 37-41.
and to the Nominal Phrase; within Word limits it is colligable only with the Adjective category and with the Nominal sub-category of Particle. The Nominalizing Particle is restricted to the Nominal Phrase; and is colligable within Word limits only with the Verb category and with the Nominal sub-category of Particle. The Clausal Particle can be comprised in either Nominal or Verbal Phrase, and is colligable within Word limits with Noun, Verb, Postposition, Verbal Particle, Nominal Particle Nominalizing Particle (no examples have been recorded of colligation with the Adjective or the Adjective Particle); e.g.


"Just as, around here, the "Lha-mo'i Bstan-bcos" sort of thing, the "Gzugs-kyi Nyi-ma'i Rnams-thar", and various --- his making these has turned out very well."

zer-nyan, bzo-ba, gyang-nga; N. + Nom. Part.: de-bar,
lha-mo'i, gzugs-kyi, nyi-ma'i, stna-tshogs-kyi,
Adj. + Adj. Part.: yag-po, ra-po; N. + Cl. Part.: 'di-ni
We now have here — a sahib who gives lectures at London University.'

At the present juncture, from Lhasa up this way to the Phari district the sugar --- it may reach here next.'

'As for if I say we have not,' 'It belongs to the British Trade Agent.' (G. and R.)

1 nde: is a Reading-Style pronunciation (LT de:).
052. It might be objected to the above statement that a more satisfactory alternative to distinguishing five sub-categories of Particle would be to discard the Particle category, with its five sub-categories, and to establish in its place five independent categories of equal grammatical status with the Verb, Noun, Adjective, and Postposition, thus raising the number of principal grammatical categories from five to nine. In reply to any such objection it may be stated that the five sub-categories of Particle have two important features in common; and that these two features may be taken as criteria of the Particle category as against the other four categories. These two criteria are: (052.1), order of grammatical categories within the Word; (052.2), inapplicability of a Tonal classification.

052.1. Order of Grammatical Categories within the Word

In all Words of two or more Constituents (at least one of which is necessarily classifiable as a Particle; see p.33) the order of categories is, almost without exception (for the exceptions, see pp. 120, 123-4) non-Particle, Particle; thus, if two places, initial and non-initial, are recognized within the Word, the order of categories may be illustrated as follows:
<table>
<thead>
<tr>
<th>Initial</th>
<th>Non-initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verb</td>
<td>Particle</td>
</tr>
<tr>
<td>Noun</td>
<td></td>
</tr>
<tr>
<td>Adjective</td>
<td></td>
</tr>
<tr>
<td>Postposition</td>
<td></td>
</tr>
</tbody>
</table>

In such Words the Particle category is either Verb-preceded, Noun-preceded, Adjective-preceded, or Postposition-preceded (for examples, see pp. 32-36: Vb. + Part., N. + Part., Adj. + Part., Post. + Part.).

0522. Tonal Classification

Apart from the Postposition, all members of the four Word Classes other than the Particle (Verb, Noun, Adjective, Postposition) must be given a Tonal classification, according as that member is restricted to Tone-One Words or to Tone-Two Words; but, with two exceptions (Non-Sentence-final-Clause Particle, 'da'i; and the Interrogative Particle, dang) every member of the Particle category may be observed in Tone-One and Tone-Two Words alike without restriction, and may not therefore be classified tonally, e.g.


Tone-1 Word: nā:na (- -), gmang-na (Tone-1-Word Vb.: gmang);
Tone-2 Word: \textit{tjhe:ne} (- -), byas-na (Tone-2-Word Vb.: byas).

jagu \textit{tjhe:ne}, te:dzé jik nā:ne, jagu [Interruption].
yag-go byas-na, tog-rtse cig gmang-na, [yag-go] [Interruption].

'If all goes well, if they grant a little, well.' [Interruption].

b. Vb. (phebs, dris) + Nomzg. Part (nyan)
i. Tone-1 Word: \textit{phe:né} (- -), phebs-nyan (Tone-1-Word Vb.: phebs);

ii. Tone-2 " : \textit{tri:né} (- -), dris-nyan (Tone-2-Word Vb.: dris).

tha tharé: de: ma: \textit{phe:jüné phe:né} kunenzo sangu:

ko:le pe: thenajü.

da [da-ran 'da'i mar] bod gzhung-nas phebs-nyan
sku-ngos'-tsho gsar-'gyur skor-la [dper' 'thon-a-yong].

'At present, nothing would come out, I suppose, about
news of the Officials coming down here from the Tibetan
Government for instance.'
There is a terrible lot that sort-of ask.

c. Adj. (spro, bde, ) + Adj. Part (po)

i. Tone-1 Word: trobu (--), spro-po (Tone-1-Word Adj.:
spro);

ii. Tone-2- " : débu (--), bde-po (Tone-2 Word Adj.:
bde).

'Did it turn out pleasantly for you?'

It is: "Mr. Sangda La, --- I see you are in the best
of health".

d. N. (so-so, lung-pa) + Nom. Part. (po)

Tone-1-Word: so-so: (--), so-so'i (Tone-1-Word N. : so-so);
Tone-2 " : lungbe: (--), lung-pa'i ( " 2 " " : lung-pa).
Sose: lungbe: tshube khā:

so-so'i lung-pa'i phyu-pa gyon.

'Wear one's national dress.'

There is no need, either, to classify the two exceptional Particles, the Interrogative Particle, dang, and the non-Sentence-final-Clause Particle, 'da'i/de'i; for the pitch behaviour of the Particle Words to which these Particles are confined is dealt with as a matter of Clause Intonation.
1.

DELIMITING THE WORD:

INTER- AND INTRA-VERBAL JUNCTION
The aim of this thesis, to give a phonological account of the Grammatical Constituents of Verbal-Phrase Words, clearly requires that the boundaries of the Word should be precisely known; but convenience of grammatical statement is not the only reason for delimiting the Word: at the Phonological Level too the Word is the most convenient unit for stating such prosodic systems as Tone and Junction.

It is possible to go a long way towards delimiting the Word solely on phonological grounds, by utilizing for the purpose certain of the phonetic features characterizing the junction of Syllables. These features are stated as criteria of two terms of a Junction system: Interverbal, Intraverbal. Interverbal Junction is so named as marking the boundaries between Words, and therefore also such supraverbal units as Phrase, Clause, and Sentence wherever the boundaries of these units coincide with those of the Word, i.e. initially and finally in these units; Intraverbal Junction is so named, on the other hand, as marking the absence of Word boundaries, and therefore the absence of Phrase, Clause, and Sentence boundaries also. In the phonetic transcription and the transliteration Interverbal Junction is indicated by a space between successive Syllables, and by comma and full stop; Intraverbal
Junction is indicated by the absence of these punctuation marks (App. I, pp. 667-8).

It is not however possible to delimit Words entirely on phonological grounds, i.e. by analysis in terms of the two Junction categories, Interverbal and Intraverbal: in some examples of intersyllabic junction the junction features are ambiguous, and there are no criteria of Inter- and Intra-verbal Junction. In such instances convenience of statement at the Grammatical Level of analysis is made the arbiter of Word division. These grammatical considerations are themselves, however, not incompatible with the phonological analysis; for it is one of the results of first delimiting the Word by appeal to Junction criteria that a particular type of grammatical analysis becomes appropriate to all Words thus (phonologically) delimited, a grammatical analysis consistent with the analysis in terms of Junction. It is this phonologically determined type of grammatical analysis that is then in its turn applied to phonologically ambiguous material.

The criteria that serve to establish the two phonological categories, Inter- and Intra-verbal Junction, are considered in the following order: (11), Interverbal Junction; (12), Intraverbal Junction.
11. **Inter verbal Junction**

The criteria of Inter verbal Junction comprise all the phonetic features and sequences of phonetic features that serve to establish Word boundaries, either at the beginning and end of utterances or within the utterance. Where the Word boundaries co-incide with the beginning or the end of an utterance, only one Syllable, the utterance-initial or the utterance-final Syllable, will be of interest; but within an utterance two Syllables, the former and the latter, will both be concerned in the Junction; and the criteria of Inter verbal Junction provide grounds for assigning them to different Words.

Some of the criteria can only be considered in relation to Tempo; for certain criteria are valid for utterances of one Tempo but not of another. First to be stated, at (111), are all the criteria of Inter verbal Junction that can be stated independently of differences in Tempo, and that are valid irrespective of any such differences. These are followed, at (112), by those criteria the significance of which cannot be assessed unless the Tempo of the utterance (Fast Tempo or Slow Tempo) is known.

111. **Criteria statable independently of Tempo**

These criteria are presented under the following
three heads: (1111), Word-initial features, criteria drawn from the Syllable-initial features of one Syllable only of the Junction, the Word-initial Syllable, and therefore marks of Word-beginning that are valid irrespective of whatever features characterize the other (former) Syllable of the Junction, if there should be one; (1112), a Word-final feature, a criterion associated with one Syllable only of the Junction, but in this case the Word-final, and therefore a mark of Word-ending that is valid irrespective of whatever features characterize the other (latter) Syllable of the Junction, if there should be one; (1113), criteria comprising sequences of phonetic features drawn from both the Syllables concerned in the Junction (former and latter).

In the case of criteria of this third type phonetic features of either Syllable alone are ambiguous; but features of the one Syllable provide a criterion of Interverbal Junction if jointly considered with features drawn from the other.

The Word-initial and Word-final criteria cited in 1111 and 1112 are appropriate respectively to the beginning and end of utterances as well as to Junction between Words; but those cited in 1113 apply only to junction between Words within an utterance. Thus the Word-initial
features that serve as criteria may be preceded either by silence or by an utterance of another speaker; the Word-final criterion may be followed by an utterance of another speaker, but is debarred by its nature (pause) from being followed by silence; but neither circumstance can apply to the criteria drawn from both former and latter Syllable of the Junction.

1111. Word-initial

The four combinations of co-articulated features given below (11111 - 4) are all markers of Word-beginning regardless of difference in Tempo.

\[
\begin{align*}
\text{plosion:} & \quad \text{ph th kh ch/kj}^1 \\
\text{Aspiration + affrication:} & \quad \text{tʃh tʃh tr} \\
\text{friction:} & \quad \text{ʃh sh ʃh; e.g.}
\end{align*}
\]


'Now, therefore, in what manner further --- how --- we should sooner or later, as it were, have to carry on a

\[1\] At the Phonetic Level the '+' sign has been used to symbolize: i. where the terms are enclosed in brackets, co-articulated features; ii. where they are not, a sequence of features.
conversation."

[de-ring (thirI:) kha-sang] (khsä:) ya mtshan-po (shambu)
[ra-po zhe-drag] red.

'Things are terribly kind-of extraordinary these days.'

byas-bzhin (jhē:ült:) sku-zhog byams-pa (tjhamba) gsang-
zla lags ga-le (khale:) chibs-bsgyur (tjiβju:) gmang-go.

'Then, good bye, Mr. Champa Sangda.'

The combination of features (aspiration + friction)
(∫h sh jh) alternates, for the same lexical items, with
(aspiration + plosion/affrication) (ph tsh t∫h).

(Aspiration + friction) is in fact confined to Fast-Tempo
utterances; but, unlike certain other combinations of
features (112), its role in Junction does not depend on
a knowledge of the Tempo of the utterance, and it is not,
therefore, out of place here.

11112. (Voicelessness + lateral constriction): ʃ; e.g.
de min-pa'i[-yang] lhas-sa (le:se) khul-la phyag-las
[Interruption].

'Apart too, from that, in the Lhasa district your work
-- --' [Interruption].

yang las lha-[ba (la:) nang-gi-'dug-ga].

'Or do you do it more easily?'

'o-na de-ring sku lhod-lhod (lō:lō:) gmang-nas, bzhugs-
gdan 'jags-dgo (dgos).
'Well, stay here to-day and take it easy.' (Bell).

11113. (Voicelessness + friction + apicality): \( \mathcal{r} \);

e.g.

shing hral-hral (\( \mathcal{r}\mathcal{r}:\mathcal{r}\mathcal{r} \)) byas-nas, btsug-pa.

'To plant trees far apart.' (G. and R.).

hrib-tsam (\( \mathcal{r}\mathcal{b}\mathcal{z}\mathcal{e} \)) gcig-la.

'In a short time.' (G. and R.)

dmar hrang-ba (\( \mathcal{r}\mathcal{a}\mathcal{n}\mathcal{e} \)).

'Naked.' (G. and R.).

11114. Voiceless Vowel: \( \mathcal{h} \);

e.g.

da yig-ge hur (\( \mathcal{h}\mathcal{u} \)) dag sba dag sbyang-ni,

'Now when you have studied reading and writing from 'a' to 'zed'.

don-dag ha (\( \mathcal{h}\mathcal{a} \)) go-gi-med.

'I do not understand what you mean'.

sgang-ga log ha-rup (\( \mathcal{h}\mathcal{a}\mathcal{r}\mathcal{u}: \)) sba-rup cig [\( \mathcal{g}\mathcal{n}\mathcal{a}\mathcal{g} \)] byas.

'Say they all did it [?working as a team].

11115. (Glottality + Plosion):

With certain exceptions it would be possible to add this combination of features as a further criterion to the four given above; e.g.

a-la'i (\( \mathcal{a}\mathcal{l}\mathcal{a}\mathcal{s}: \)) sno-su. 'Oh, yes!'

a'utse (\( \mathcal{a}\mathcal{d}\mathcal{z}\mathcal{i} \))'dug-ga. 'There would be enough, would there not?'
dbugs (ʔu:) ring-po 'then. 'Take a deep breath.' (G. and R.)

With this last example may be compared the following:

ljags-dbugs (dʒu:) gtong-ba gmang-gi-'dug. 'He takes breath'; 'he breathes'.

These two examples show the phonetic exponents of the initial C term of the same Syllable (dbugs) in two different prosodic contexts:

Inter-verbal Junction: (glottality + plosion) ʔ;

Intra-verbal ʔ: none.

From this pair of examples one might expect glottal plosion to be excluded from Intraverbal Junction; and this is in fact so of all types of Word except those in which (a), the Verbal, and (b), the Nominal, sub-categories of Particle are represented; e.g.

a. Verbal Particle

da'i da-lta skyon-a-yod (c̃ːʔəjə).

'You have not printed it here, I suppose.'

'o-na rgyugs-a (jʊʔaː). 'Good morning, then.'

nga'i spun-kyag mdas ('di-ru) yod-na-a (jʊːnəʔaː). 'Would that my brother were here!' (Bell).

b. Nominal Particle

da-ring gnam 'di-'dras grang-nga-la-a (trəŋsəʔaː).

'How cold it is to-day!'
What a big horse this is!'  

Except for the Particle examples given above, all of which have the same spelling (a), it would be possible to include the combination of features (glottality + plosion (?)) among the criteria of Interverbal Junction.

1112. **Word-final**

Only one criterion may be cited here: pause (---). A pause in the course of an utterance or between utterances co-incides with Word-ending, and can therefore be treated as a Word-final feature; e.g.


'And once, too, in the course of each week --- er --- no, it is not --- twice --- there is someone called Prince

1 For --- (pause), see App. I, p. 670.
Peter of Greece, is there not, mm? --- with him too I have been acting as a sort of lamp to illumine his Tibetan studies.'

di:lej: tsha: --- paran: tsha: di --- tsha: j: na,


'And before that, the letterpress --- this letterpress of ours --- was it a real type press or was it a litho press?'

dine: ndi --- khari jine --- ndi --- tshindre: sbotse rgyu di.1
de-nas 'di --- ga-re vin-na'i --- 'di'i --- lcem-kra'i bzo-lta ra[-po] dei.

'Next this --- what is it? --- this --- this thing sort-of shaped like tweezers.'

Although pause co-incides with Word-ending, it by no means follows that Word-ending is regularly marked by pause. If it were, there would have been no need for the symbol --- in the above examples: space between Words would have been sufficient.

1 ndi is a Reading-Style pronunciation (LT di).
1113. Criteria drawn from both Syllables of the Junction.

The following five sets of criteria (11131 - 5) establish the two Syllables concerned as being in Interverbal Junction, and therefore as belonging to different Words: a Word boundary runs between them.

11131. Aperture Features

A prominent feature of LT is a so-called 'vowel harmony' of the type in which the degrees of aperture of vowels within the Word are related, with the result that certain vowels within given Words preclude the possibility of there being certain other vowels in those Words (see Closure, pp. 593-614; 2121331, 2121332). When therefore the vowels of two Syllables in Junction are incompatible with each other as regards membership of the same Word, this sequence of vowels may be cited as a criterion of Interverbal Junction.

1 The terms vowel and consonant are here phonetic only; at the Phonological Level phonematic units are designated C or V as appropriate (for this distinction, see F.R. Palmer, "Openness" in Tigre: a Problem in Prosodic Statement, Bulletin of the School of Oriental and African Studies, XVIII, 3 (1956), 551.)
Vowels of Syllables in Interverbal Junction

**First Syllable**

| a. closeness: | [i(ː) u(ː) y(ː)] | [i(ː) u(ː) y(ː)] |
| b. (backness + spreading): | & | y | & |
| c. (half-closeness + backness + rounding): | o(ː) | & |
| d. (half-closeness + frontness + rounding): | & | o(ː) |
| e. (half-openness + frontness + spreading): | & | o(ː) |
| f. (half-openness + backness + rounding): | o(ː) y | & |
| g. openness: | a(ː) a(ː) | & |
| h. (half-openness + backness + spreading): | & | a(ː) a(ː) & |

**Second Syllable**

| a. (half-closeness + frontness + rounding) | a. |
| b. (openness + rounding) | a. |
| c. (half-openness + backness + spreading) | a. |
| d. half-closeness | a. |
| e. (half-openness + frontness + nasality) | a. |
| f. ("" + backness) | a. |
| g. openness | a. |
| h. closeness | a. |
| i. (half-closeness + backness) | a. |
| j. (half-openness + backness + spreading) | a. |
| k. openness | a. |

1 In this more detailed phonetic transcription has been used, in which i is distinguished from ı, o from u, a from a, and v from d in accordance with the I.P.A.
Where the vowels of successive Syllables accord with the above table, those Syllables must be assigned to different Words; e.g.

h + k

'I had certainly not heard any sort-of Namtha-p-singing of that quality.'

g + j

nyin-sung zhal-lag gra-sgrig (ʃe:la trədri:) byas-nas, zhog.
'Have lunch ready.' (G. and R.).

e + h

'das phyag-las sus [sic] (tʃhaleː syː) tsa-la ṭhang-gi-vod-na.
'Whose place is it that you are working at here?'

c + d

sku-zhog bod-skad (kəjoː phoːgɛː) yag-po zhed-skrag mkhyen-gyi-'dug.
'You know Tibetan very well.'

c + g

chu-la shor-ba-red (tʃhoː jʊrɛɾɛ). 'It slipped into the water.'

c + g

sku-zhog phyag-phebs (kəjoː tʃabeː) ṭhang-ṃbyung.
'Good morning.'
'He fills a pot.' (G. and R.).

What is the price of this one?' (Bell).

If an expansion of all these should happen to come,'
de-nas [de-nil] lcags-par de (tjaقبba: d1) ga-dus
thon-pa-yin-na (khady: thombe j1:ne).

'Next, then, when did this type-press start?'
c + f


'When did you come, I wonder.'

11132. (Nasality + absence of oral closure) + [plosion/affrication, except (affrication + voice + dorsality)
T((): F((): E((): M((): p ph b t th d k kh g c ch j
y((): $($((): u($) t@ t$h ts tsh tr tr dr (not d3)

e.g.
gzugs-po bde thag-chod [yod, de-ring kha-sang] (thirF: khasa:).

'I am very well, thank you, these days.'
de'i rkyen-gvi nga-nag-'tsho gang-spyi-nas phar bka'mol [cig]
(kam@d: tji@) snga-sting [ra-po] gsungs dgos-kyi-yod-red
(s$: gu@jo:re).

'--- on that account, in what manner further --- how --- we might at some time or other have to carry on a sort-of conversation.'

1 nDE is a Reading-Style pronunciation (LT: de).
'Then, too, about how many years have gone by since you came here to Kalimpong?'


'Now, is not Kalimpong a real hot spot these days?'

When followed by such features as (affrication + voice + dorsality) (dʒ) and (friction + voice + coronality) (z) the combination of features under consideration here, (nasality + absence of oral closure), has been recorded in Fast-Tempo (ft) utterances in both Interverbal and Intraverbal Junction;¹ and such a sequence of features cannot therefore be treated as a criterion of Junction as far as concerns Fast Tempo; e.g.

Intra.: Ṉanā:z; Inter.: ju:dē: dz̞:dyː.
dā, sku-zhog, nga-rang-'tsho (ṇanā:z) de'i sngas-nas ['di-ni] lhas-sar bzhugs-gdan 'jags-dus (ju:dē: dz̞:dyː) gang-nas,

'Now, sir, before this, then, when you were living in Lhasa,'

Intra.: nā:dz̞ǔ.

phyag-phebs snang-byang (nā:dz̞ǔ).

¹ For the term 'coronality', cf. Bloomfield, Language, London, (1935), 98: 'Contact can be made by the tip of the tongue (apical articulation) or by a larger area, the blade, round the tip (coronal articulation).’ Cf. also Chomsky and Halle, The Sound Pattern of English (New York, 1968), 304.
'Good morning.'

Inter.:  $khs\ddot{a}: zyp.

der"ing kha-sang rdzab ($khs\ddot{a}: zyp$) zhed-skrag yod-pa-red.
'There is a terrible lot of mud these days.'

In the above ft examples $d_{3}$ and $z$, preceded by nasal vowels, appear in both Inter- and Intraverbal Junction; but in Slow Tempo (st) utterances such a sequence can only be Interverbal, and is therefore stated as an Interverbal criterion, for st utterances, at 11221 - 2 below.

When followed by any other features, e.g. lateral constriction ($l l$), nasality ($m n p \eta$), (friction + voicelessness) ($s f r$), (nasality + absence of oral occlusion) is ambiguous, and provides no Junction criteria.

11133. $$\text{(Affrication + coronality)} \quad + \quad \text{[Any features other than vocalic]}
\quad \text{[friction + coronality]}
\quad \text{[ts dz s z + p ph b tf l l m j r s, etc. ]}
\quad \text{e.g.}
\quad \text{da-ga'i-se bka'-mol ($thaga:s$ kam$\ddot{a}:$) ra-po [zhus mchog].}
\quad 'We must have a spontaneous conversation.'
\quad \text{da, sku-zhog, nga-rang-'tsho de'i ($\etaan\ddot{a}: z \ di:$) sngas-nas}
\quad [di-ni] lhas-sar bzhugs-gden 'jags-dus gang-nas,
\quad 'Now, sir, before this then, when you were living in Lhasa,'
\quad de-nas ka-lon sbug-la tshur phebs-ni, [yang 'das] lo
ga-tshod rtse thad-kyi-yod-na (\text{\textit{ts the:ge:joe:ne}}).

'Then, too, about how many years have gone by since you came here to Kalimpong?'

[ngas] 'das-yang nga-rang-'tsho'i bod-yig skor-la tog-rtsa
tog-rtsa rang (to:dz to:z ræ:) phar bris-gi [sic] bris-gi
[sic] ['di-'dras ra-po] byas-na[s],

'I myself have kept on at this too, writing away, a bit here and a bit there, about this Tibetan language of ours,'

Foreign loan-words are excluded from this criterion, e.g. \text{\textit{be:skup, sbas-se-kob}}, 'cinema'.

\begin{align*}
\text{labiality} & \quad \text{voice} \\
\text{(plosion} & \quad \text{friction} \quad \text{voice}) \\
\text{(affrication} & \quad \text{(friction} \quad \text{voice}) \\
\text{occlusion} & \quad \text{voicelessness})
\end{align*}

\text{Labiality} \pm \text{occlusion} \pm \text{voicelessness}

| \text{p} & \text{ph} & \text{b} & \text{m} |
| \text{ph} & \text{b} & \text{th} & \text{d} & \text{kh} & \text{g} & \text{ch} & \text{ʃ} |
| \text{tʃ} & \text{dʒ} & \text{tʃ} & \text{tr} & \text{dr} |
| \text{z} & \text{r} |
| \text{l} & \text{m} & \text{n} & \text{ŋ} & \text{j} & \text{w} |

nga-rang-'tsho'i [\text{\textit{gcig}}] bod-yig de [\text{\textit{phar 'phar-}}]khyabs
chen-po (\text{\textit{ph\text{}\t
bar-skabs nga-nang-'tshos (\textipa{phɔ:ɡp' ɲanɑn}\textipa{o}) phyag-las
ga-re gmang-gi-yod-na.

What work are you doing at present?'

mgo dang rkub ra-po (\textipa{kup' rɔBU}) ma tshang-bzhin,

When the head and tail, as it were, are incomplete',

In ft utterances (labiality + occlusion +
voicelessness) also provides a criterion of Interverbal
Junction when followed by (plosion/affrication +
voicelessness + non-aspiration + non-labiality) (t k c
ts ts tr, but not p) (11211); but it does not provide a
criterion when followed by (friction + voicelessness)
(s f) whatever the Tempo.

11135. (Labiality + nasality) \pm (voicelessness +
affrication)

\begin{equation*}
\begin{array}{|c|c|c|c|c|c|c|c|}
\hline
\text{p} & \text{ph} & \text{t} & \text{th} & \text{k} & \text{kh} & \text{c} & \text{ch} \\
\text{m} & \text{tʃ} & \text{tʃh} & \text{ts} & \text{tʃh} & \text{tr} & \text{tʃtr} \\
\hline
\end{array}
\end{equation*}

byams-pa gsang-mdal lags de-ni gsungs-rnam gang (\textipa{sʌ:nam
khɑ:}) min-mdzad [\textipa{vɔd-po}] vod-pa[-red zer-ra-red]
go-nyung ta'i. -- --.

'I had heard it said that our friend here, Mr. Champa
Sangda, that his Namthar-singing was incredibly good;
but -- --.'
'In particular, we are giving a lot of thought, are we not, to the question of the progress of the whole Tibetan race.'

This is a much cleaner job than the previous one, the litho press?'

This criterion overlaps to some extent with 11111, and 11112, and completely with 11211.

112. **Criteria statable only with reference to Tempo**

The criteria statable hitherto have all been valid indications of Interverbal Junction without regard to the Tempo of the utterance; the following criteria must however be stated within the framework of a Tempo system of two terms: Fast Tempo (ft), Slow Tempo (st) (21211). The reason for this difference in treatment is that certain features common to both ft and st are criteria of Interverbal Junction in utterances of one Tempo, but not in utterances of the other; and in order to be able to assess the Junctional role of a particular phonetic feature, or
sequence or combination of features, i.e. whether or not they provide criteria, it therefore becomes essential to know the Tempo of the utterance. The position of such criteria as these is thus altogether different from one of the combinations of features cited above: 11111, (aspiration + friction) (\(\phi h\) sh \(\j h\)). While this latter criterion is in fact confined to utterances of one Tempo, and might therefore also be stated as a criterion of that Tempo (ft), the combination of features concerned is not common to both ft and st, and its role in Junction cannot therefore be ambiguous. It is the features that are common to both Tempos but significant for Junction only in one of them that raise difficulties.

Although every effort was made at all times to elicit genuine LT utterances, it is probably not without significance that the criteria stated here for ft utterances are mainly drawn from unscripted recordings, while those of st utterances are provided chiefly by recordings of examples read from printed texts (App.II, pp. 676-7).

The criteria stated in this section are considered under the following two heads: (1121), criteria stastable for ft utterances; (1122), criteria stastable for st utterances.
Critera statable for ft utterances

Two criteria (11211 - 2) may be stated here:

Any combination of features other than (labiality + occlusion + voice) (b')

(voicelessness + non-aspiration + plosion/affrication)

i(:) e(:) o(:) etc.

r(:) s(:) e(:) etc. + p t k c tj ts tr; e.g.

n m p'

bar-skabs cig-la (phα:qxp' t'i1e) lhas-sa-nas tshur phag-ri khul-la var yang spyi-ni (jā: tšine) [a-ni 'dir]
sleb-kyi [-yod-pa'-dra].

'At present, from Lhasa up this way to the Phari area the sugar --- it will probably reach here next.'

'di sngas-ma' (ji:me: tšik) gcig rdo-par-las zhe-drag gam gtsang-nga (gam tsa nj) 'dug.

'This is a much cleaner job than the previous one, the litho press?'

de-nas ka-lon shug-la (dine: kalē: pū:le) tshur phebs-ni,


'Then, too, about how many years have gone by since you came here to Kalimpong?'

shes dang (ʃi:n tā:).

'I must tell you.'
This criterion cannot stand for (st) utterances: in them (voicelessness + non-aspiration + plosion/affrication) preceded by a vowel (non-nasal) — i(:) e(:) etc. — is a feature of both Inter- and Intra-verbal Junction; e.g.

**Inter.**: tshorange tjigi. tshong-pa zhi-gi (tshorange tjigi) red.

'It belongs to a trader.' (G. and R.); cf.

**Intra.**: petja. dpe-cha (petja) mgyogs-po khyer shog.


**Inter.**: tsama. Li. 'di gtsang-ma (di tsama) byed.

'Make it clean' (G. and R.);

**Intra.**: khatso:. lo ga-tshod (khatso:) yin-pa.

'How old are you?' (G. and R.). (f.: khadzga:).

The examples given in the preceding paragraph record (plosion/affrication + voicelessness + non-aspiration), without distinction, both initially and medially in Words, through the use of identical phonetic symbols (tj ts); but in some examples it seems possible to detect a difference, of tensility, between this combination when Word-initial and when medial, such that Word-initial (plosion/affrication + voicelessness + non-aspiration) is accompanied by greater muscular tension, while medial (plosion/affrication + voicelessness +
non-aspiration) is accompanied by a more lax type of articulation that is difficult to distinguish from voice. In a more detailed phonetic transcription the distinction may be symbolized as:

a. (tenseness + plosion/affrication + non-aspiration):
   \[p\ t\ t\j\ etc.;\]

b. (laxness + " / " + non-aspiration):
   \[b\ \d\ \d\z\ etc.\]

The phonetic distinction is fine; and it has often been difficult to decide, in particular instances, whether to analyse the syllable initial of a given Syllable in Intraverbal Junction as an example of (tenseness + voicelessness + non-aspiration) (khat\(\theta\)): or of (laxness + voicelessness + non-voicelessness + non-aspiration) (khatz\(\theta\)); alternatively, a similarly difficult choice has sometimes to be made between (laxness + voicelessness + non-aspiration) (khatz\(\theta\)) and voice (khatz\(\theta\)). It is perhaps worth pointing out that, if a distinction between tenseness and laxness could be regularly established, a more economical statement of the criteria of Inter- and Intraverbal Junction could then be made than the one given here; for the distinction between the ft criterion 11211 and the criterion 11111 could be dismissed, and the features
in question comprehended in the single criterion:

a. Inter.: (tenseness + voicelessness + plosion/affrication);
b. Intra.: (laxness + " + " / " ).

a. p ph t th tj tjh etc.
b. b d dz etc.

(Labiality + occlusion + voicelessness)

(plosion/affrication + voicelessness + non-aspiration + non-labiality

p' + t k c tj ts tr, but not p; e.g.

bar-skab cig-la (phA:qYp' tfile) (lhas-sa-nas tshur
phag-ri khul-la var yang spyi-ni [a-ni 'dir] sile-bki-
yod-pa-'dra.

'At present, from Lhasa up this way to the Phari area
the sugar --- it will probably reach here next.'

spyi-khyab sku-zhogs-kyi (tjigjYp' kujo:gi) red.

'It is from the British Trade-Agent.' (G. and R.).

gsol-thab gtsang (sy:dxp' ts8:) thag-chod byas-nas
zhog.

'Keep the kitchen thoroughly clean!' (Bell).

This criterion overlaps to some extent 11134 and
11211.

1122. **Criteria statable for st only**

Two criteria (11221 - 2) are valid for Interverbal
Junction in st, but not in ft, utterances.
11221. (Nasality + absence of oral occlusion) + (affrication + dorsality + voice)

\[ f(:) \varepsilon(:) \varnothing(:) \mathfrak{f}(:) \varnothing(:) \mathfrak{f}(:) \mathfrak{u}(:) + \mathfrak{d} \mathfrak{3}; \text{ e.g.} \]

\[ \text{lagz vod. bzhugs-gdan 'jags (ju:d\varepsilon: d\mathfrak{3}a:) } \]

'Yes, please sit down.' (G. and R.).

\[ \text{rkang rjen-ma (k\varepsilon: d\mathfrak{3}\varepsilon\varepsilon). } \]

'Bare-footed.' (G. and R.)

\[ \text{mdas ga-tshod bzhugs-gdan 'jags-kyi-vin-pa (ju:d\varepsilon: d\mathfrak{3}\varepsilon\varepsilon\varepsilonimba). } \]

'How long are you staying on here?' Hon. (Bell).

11222. Vocalic articulation + (voice + friction + coronality)

\[ i(:) e(:) \varepsilon(:) u(:) o(:) o(:) \]

\[ y(:) \varnothing(:) a(:) f(:) \mathfrak{u}(:) \varepsilon(:) + z; \text{ e.g.} \]

\[ \mathfrak{s}(:) \mathfrak{f}(:) \varepsilon(:) \varnothing(:) \varepsilon(:) \varepsilon \]

\[ \text{grogs-po 'dzoms-pa-red (tr\varepsilon\varepsilon\varepsilon\varepsilon z\varepsilon\varepsilon\varepsilon\varepsilon). } \]

'Friends met.' (G. and R.)

\[ \text{lagz nga de-ring rdza-leb (thirf: zale) la-nas 'gro-gi-vin. } \]

'Yes, to-day I shall go by the Jelep La.' (based on G. and R.).

\[ \text{da rdzogs-shag (tha z\varepsilon:j\varepsilon). } \]

'It is all used up now.'

For \( \mathfrak{d} \mathfrak{3} \) and \( z \) in \( ft \) utterances, see 11132; for \( z \) preceded by features other than that given above see 1211 (Intraverbal Junction).

12. Intraverbal Junction

The criteria of Intraverbal Junction comprise every
type of phonetic feature and sequence of phonetic features that serves to establish the two Syllables concerned as being in an Intraverbal-Junction relationship with each other, and therefore members of the same Word. These criteria are presented under two heads: (121), comprising co-articulated features drawn from a single Syllable of the Junction; (122), criteria comprising sequences of features drawn in some cases from a single Syllable, and in others from both Syllables, of the Junction.

121. **Criteria comprising Co-articulated Features drawn from a Single Syllable.**

Under this head may be cited the following five criteria (1211 - 5):

1211. **(Affrication + coronality + voice): dz.**

dz must be initial in the Syllable; and the Syllable in which it is initial is in Intraverbal Junction with the preceding Syllable; e.g.


'For about how long a period did you work at Norbu Lingka?'


'How many years have gone by up till now while you have
been doing regular work here?'
[tog-rtse] (to:dze) yon-tan dwangs-shes byas-na,
'If you get some education now,'

1212. (VeJarity \[occlusion \pm non-nasality\): k' g'
\[friction\): x y

The syllabic combinations of features \( \mathcal{g} \) and \( \mathcal{y} \) are excluded from this criterion, and are considered below (p. 72).

\( k' \), \( g' \), and \( x \) are final in the Syllable, and establish that Syllable as in Intraverbal Junction with the succeeding Syllable; \( \mathcal{y} \), on the other hand, is initial in the Syllable when followed by a vowel, and final when followed by a consonant. In the former case the Syllable in which \( \mathcal{y} \) is initial is in Intraverbal Junction with the preceding Syllable; in the latter case the Syllable in which \( \mathcal{y} \) is final is in Intraverbal Junction with the succeeding Syllable; e.g.

de'i sngas-la tshag-par (tshag'ba:) [de nga-rang-'tsho'i
\text{tshag-par (tshag'ba:) de] lcags-par (t\text{jag'ba:}) da-ga yin-na,
'Before that, this letterpress --- this letterpress of ours --- was it really a type-press,'
'dug-se (duxs) byas. 'Like this, say.'
\text{phyag-dpe 'di [nga-rang-'tsho'i] debs-kyi (deb'gi)
\text{lugs-srol (l\times s\times:) yin-na,}
'Is this book after the manner of our foreign-style books, or --?'

bsgrigs-kyi-'dug (drigyidu:). 'He fixes it.'

'di, dang-po srgig-su (drik'se) da'j.

'Of this, this join here, first.'

Two exceptions have been observed to this criterion: the Postposition cig, 'a', 'an', and the Noun gcig, 'one', have sometimes been recorded with final velar closure or friction (tjik', tjix) and sometimes without (tji).

Further, apart from this alternation in the pronunciation of cig and gcig, a voiceless velar stop has also been observed in the recorded material in a very few instances, all of which are taken to be Reading-Style pronunciations; e.g.

de-nas pa[r]-vig (p\^:jik') rim-pa'i. (LT: p\^:ji:).

'Next, the pieces of type, in order.'

de-'tsho'i phar [cig] (tjix) zhib-zhing phra-ba ra-po [phar 'di-'tsho] zhus-byas,

'These people out there --- these people out there having asked for a sort-of small piece of research,'

nyi-ma re-la [yang] de rim-pa [ga-gir] gra-sprig (t\^:drik') byed-dgos-yod-na. (LT: t\^:dri:).

'Mm, in which order do you have to set these up each day?'
Foreign Words have been excluded from this criterion; e.g.

me-se-tar e-sa-pi-rigs (sprix) zhun-nyan cig yod.
'There is someone called "Mr. Sprigg".'

Nor does the above criterion apply to examples in which (voice + velarity + non-nasality) is accompanied by the additional feature of syllabicity (\(\hat{\ddot{}}}\)). In utterances \(\ddot{\ddot{}}}\) and \(\dddot{\ddot{}}}\) are commonly the phonetic exponents of Syllables that are grammatically classifiable as Particles: the Nominal Particle \(gi/gyi/kvi/-'i\), and the Verbal Particle \(gi/gyi/kyi\).

At the phonetic level the symbols \(\ddot{}}}\) and \(\dddot{}}}\) imply here a greater degree of duration than \(g\) and \(\hat{\ddot{}}}\); they may also imply a change of tongue position: a forward movement on the part of the back of the tongue from the rearward to the forward part of the velum, i.e. towards a position appropriate to the articulation of \(gi\) and \(\ddot{\ddot{}}}\), with which \(\ddot{}}}\) and \(\dddot{}}}\) alternate. Both the greater duration and the fronting movement are implied by the syllabic symbol (').

The following, and similar, examples of \(\ddot{}}}\) and \(\dddot{}}}\) are therefore taken to be excluded from criterion 1212:

[zhugs-mar] sba-bu lags-kyi (1a:\(\ddot{}}}\)) phyag-las ['di]
zhabe-phyi zhu thub-pa byed-dgos-red dang.

'Shall you have to be able to do this work of Babu La's.
for him later on?


'--- on that account, in what manner further --- how --- we might at some time or other have to carry on a sort-of conversation.'


'We now have here a Sahib who lectures at London University.'

1213. (Labiality + voice + [occlusion]: b' (friction): ẞ (Where the above combinations of features are further combined with syllabicity, ß, ẞ, they are excluded from this criterion, and are considered below).

b' is final in the Syllable, and establishes that Syllable as in Intraverbal Junction with the succeeding Syllable; ẞ, on the other hand, is initial in the Syllable when followed by a vowel, and final when followed by a consonant. In the former case it marks Intraverbal Junction with the preceding, and in the latter case with the succeeding, Syllable; e.g.
sku-zhog ra-dus chibs-bsgyur (tʃhiʃu:) gnang-nga-vin-na.

When did you come, sir?

phyag-dpe 'di [nga-rang-'tsho'i] debs-kyi (dɛb'gi)
lugs-srol vin-na,

'Is this book after the manner of our foreign-style books, or -- ?'
da [sde-pa] (dɛpэ) ra-po scig-la cha bzhag-na,

'Now, if you rely on one sort-of division,'
shing-khrol bzo-blta (sɔb'tэ) ra[-po] 'di.

'This thing sort-of shaped like a cabinet.'

With the criteria given here may be compared that given at 11212 (Interverbal Junction, p').

Foreign words are excluded from this criterion;
e.g. da nga-'tsho'i ['das] lon-don vu-na-na-si-tir
legs-sbyar gnang-nyan-gyi sab ɕig (sɔb' tʃi) vod.

'We now have here a Sahib who lectures at London University.'

Nor do the above criteria apply to examples in which (labiality + voice + occlusion/friction) are accompanied by the additional feature of syllabicity (p, ɹ). As in the case of ɬ and ɭ, as compared with ʃ and ɻ, p and ɹ are to be distinguished from b' and β on grounds of duration and other features, summarized in the phonetic transcription by the presence or absence
of the syllabic mark (').  and are commonly to be associated with Adjectival Particle po, of the phonological units for which, in ft utterances, they often serve as sole exponents. In addition to greater duration the symbol (') is in such examples to be taken also to symbolize an increase in lip-rounding during the articulation, similar to that of the articulation of bu/ru, with which and alternate; e.g. 

```
--- de'i rkyen-gyi nga-nag-'tsho gang-spyi-nas phar bka'-mol snga-gting [ra-po] (rx) gsungs dgos-kvi-vod-[red]. 
'--- on that account, in what manner' how we might have to carry on a sort-of conversation at some time or other. 
```

[ngas] 'das-yang nga-rang-'tsho'i bod-yig skor-la tog-rtsa tog-rtsa rang phar bris-gi bris-gi ['di-'dras ra-po (rx) byas-na[s],
'I myself have kept on at this too, writing away, a bit more and a bit more, about this Tibetan language of ours'.

Where the Particle syllable with which is associated is not the Adjectival Particle po, then does not necessarily imply an increase in lip-rounding, but only greater duration, as for pa in the following example:

```
```
'It will probably reach here next.'

1214. (Voice + friction + palatality): 3.

The Syllable in which 3 is initial is in Intraverbal Junction with the preceding Syllable; e.g.

de-ʼtsho’i phar [cig] zhib-shing phra-ba ra-po [phar 'di-ʼtsho] zhus-byas (ʃyːze),

'These people out there --- these people out there having asked me for a sort-of small piece of research,'


'Down there at the School too; now, --- as regards the colloquial, our manner or speech is such and such.'

In spite of the last example the Syllable cig is generally in Interverbal Junction with the preceding Syllable, and therefore not a member of the same Word.

1215. Central Vowel: ə

A central vowel is sufficient to establish its Syllable as in Intraverbal Junction with the preceding Syllable; e.g.

['das] yar ka-lon sbug-la (pʰːla) yong-nas,

'Having come up here to Kalimpong,'

de-ʼdras rkyen-gyi de-ni pha-gas [cig] zhu-dag ʼdra-po btang-yag[-la] sogs-pa (sogbe) de-ʼdras zhu-dag.

'Then, for that reason, as it were, making some sort of
correction, etcetera, there, a correction of this sort, 'skyabs-rie [nga-rang-'tsho] rgyal-tshab rin-po che['j sku-mdun-la (kund:le) pha-gas dbu-'khor-gyi zhabs-phyi zhus gnyag-gi-yod.

'You serve there on the staff of His Excellency --- before the Regent?'

122. Criteria comprising Sequences of Phonetic Features

In this section four criteria (1221 - 4) are given.

\[
\begin{align*}
\text{1221.} & \quad (\text{Nasality} + \text{oral occlusion} + \text{non-labiality}) + \text{plosion} \quad \text{affrication} \\
& \quad \text{nasality} \quad \text{friction}
\end{align*}
\]

(Sequences in which the initial combination of co-articulated features is syllabic --- Ꞛ, ꞗ --- are excluded from this criterion).

\[\text{nz ndr nd nb ng nh nm m n m̆ m̃ ṁ m̛ n̄ n̈ n̊ n̋ ň n̍ ; nz n̄ n̈ n̊ n̋ ň n̍ ; but not mb md mq m̄ m̈ m̊ m̋ m̌ m̍ ; Ꞛ ꞛ Ꞝ ꞝ Ꞟ ꞟ Ꞡ ꞡ Ꞣ ꞣ Ꞥ ꞥ Ꞧ ꞧ Ꞩ ꞩ Ɦ Ɜ.}\]

There are two possible phonological interpretations of the above type of phonetic sequence: where (nasality + oral occlusion + non-labiality) is Syllable-final, that Syllable is linked in Intraverbal Junction to the succeeding Syllable, in which plosion, affrication, or friction, etc., is initial; where, however, the
whole sequence is a feature of a single Syllable, the second of the two, as Syllable-initial (see the second and third examples below: -ndre:, -gni:, ga-'dras, bcu-gnyis), then that Syllable is thereby linked in Intraverbal Junction with the preceding Syllable; e.g. da da-ling kha-sa nyin-ltar (ninda) phyag-las [rim-pa] ga-re smang-gi-wod-na, [nga-rang-'tsho de]. (But not rim-pa, rimba).

'Now what method do you use in your daily work these days, you yourself in it.'
da tshag-par-gyi --- lcags-par 'di bsgrigs-pa gnang-dus (n'ndy:), yang sku-thang mnyes-po 'dug[-ga], ga-'dras (khandre:) 'dug.

'Now the letterpress's --- when you set up this type-press, is it tiring, or --- what is it like?'

'It is now, I suppose, just about getting on for twelve o'clock.'
zza' mig-dmar (migma:). 'Tuesday.'

One exception to this criterion has been recorded: an example in which the sequence བོ བོ suggests Intraverbal Junction, though the behaviour of the former Syllable concerned in the Junction has in other contexts required
it to be treated as regularly in Intraverbal Junction with the following Syllable; grammatical analysis supports this latter conclusion. The example is:


'--- on that account, in what manner further --- how --- we might at some time or other have to carry on a sort-of conversation.'

The pronunciation of the Postposition 'di/de, 'the', 'this', raises problems from the point of view of Junction. R. preferred, and frequently used, the pronunciation di; but ndi has also been not infrequently observed in scripted and unscripted recordings alike (App. II). The pronunciation ndi provides an example of criterion 1221 in favour of Intraverbal Junction; the pronunciation di, on the other hand, offers no criteria in itself, but, when preceded by (nasality + absence of oral closure), it can be shown to be in Interverbal Junction under criterion 11132; e.g. ne:dë: di, cmas-don 'di 'its function'. The same two pronunciations (ndi di) have also been recorded for the Noun 'di/de, 'this; but in the case of the Noun there is a strong argument against treating ndi as an example of criterion 1221: ndi has been recorded initially in
Sentences and even in utterances; and in such instances there is no possibility of its being treated as in Intraverbal Junction. The pronunciation ndi for the Noun has therefore been treated as a Reading-Style pronunciation (031421); and this solution of the problem has also been extended to the Postposition 'di/de, which cannot, by definition, be initial in a Sentence or utterance. Examples of both Noun and Postposition may be given as follows:

de-nas (dinë:) 'di (ndi) ga-re yin-na. 'da'i (ndi)
leem-kra'i bzo-blta ra[-po] de'i (di).

'Next, this, what is it? This, this sort-of thing shaped like tweezers?'

'di-nas (dinë:) ga-re za-[ra-yin-na] 'di'i (di:) rag ra-po, ser-po de (di).

'Next, what is it called, this sort-of brass thing too, the yellow thing?'

chu 'di (ndi) 'khol-gyi'-dug.

'The water is boiling.'

The type of junction in which the sequence of features begins with (nasality + oral occlusion + labiality) is ambiguous, and has therefore been excluded from the above criterion: such a sequence may be either Inter- or Intra-verbal; e.g.
a. Interverbal: -mg-, -mn-

gang min-mdzaq[-kyi] sems dga’-po (sim gabu) [zhe-drag]
byung.

'I was incredibly pleased.'

dngos-mas [sic] gaungs-rnams mang-nga (sū:nam nāṇę)
ra[-po 'di’-dras-se ga’i] go-thos ma byung.

'I had certainly not heard any sort-of Namthar singing
of that quality.'

b. Intraverbal: -mb-, -mṇ-
de min-pa’i[-yang] (membɛ:jä:) lhas-sa khul-la phyag-las
[Interruption].

'Apart, too, from that, in the Lhasa district your work
- - -' [Interruption].

sgra-bsnyan (dramjäː). 'Tibetan guitar' (G. and R.).

In order therefore to exclude from this criterion
sequences in which m is initial in the sequence, non-
labiality has been specified as part of the criterion.

The other type of junction that has been excluded
from this criterion, junction in which the initial
nasality of the sequence is syllabic (n ɲ), is
illustrated in the following examples:

'tsaṅ ni [bṣgrigs]-kyi-ma-red-pa (tsaṅ drigmariba:).

'It will not do at all, will it?'

'di sngas-ma’i goig rdo-par-las zhe-drag gam gtsang-nga
'dug (tsan du:).
'This is a much cleaner job than the previous one, the litho-press?'

1222. plosion) (frontness of vowel + spreading + any degree of nasality) (aperure except open)
a. (Velarity + spreading + any degree of frontness of vowel + spreading + any degree of aperture except open)
b. (Dentality + nasality) + spreading + closeness)
a. qi( : ) ge( : ) ge( : ) ni( : ) ne( : ) ne( : )
b. ni

Where any of these sequences is a feature of a single Syllable, as initial in the Syllable, it indicates that that Syllable is in Intraverbal Junction with the preceding Syllable; where, however, the sequence is a property of both Syllables concerned in the Junction, as in the third example (-ne:], byung-ngas, the sequence indicates that the Junction between the two Syllables is Intraverbal; e.g.

phal-cher ma-gas (mi:ge:) phyag-ris [sku-mdun rin-po che'i] [Interruptiun]

'Usually down there -- -- letters -- -- His Holiness the

[In section 1222 i and t are distinguished, in a more detailed phonetic transcription.
Dalai Lama's --' [Interruption].

de-tsho sgang-ka [phar] thugs-nges (thunj: : ) [med-pa-vin].

'We have no certainty about all these things.'


'Did he come here?'

de-nas de-ni (d: n: ) lcags-par de ga-dus thon-pa-vi-na.

'Next, then, when did this type-press start operating?'

[a-ni] (a-ni ) skad-par ban-rtse'i nang-la [phar] rim-vas

[nga-tshos] phal-skad [skor 'di-se] bsgrgs-rgyu ra-po
de-dres-se vin.

'Well, we have got, further, to prepare this systematically
with regard to colloquial speech by means of recording
--- that is what we are up to.'

Foreign words are excluded from the present
criterion; otherwise gi in the following example would
have to be taken as establishing the Junction of that
Syllable with the preceding Syllable as Intraverbal:

ghi-ri-si (giri:s ) phi-rin-si phi-dar zer-nyan gcig

'dug-ga[-na].

'There is someone called Prince Peter of Greece, is
there not?'

\[\begin{array}{c|c|c}
\text{a. Backness of vowel} & \text{dentality} \\
1233. & \text{b. Openness} & \text{alveolar} \\
& & \text{palatality} \\
\end{array}\]
At the Phonological Level each of the above phonetic sequences is analysed as a feature of two syllables, the former syllable of the junction being of the type \( \text{CV} \), with \( u/o/a \) as specific examples of suitable \( V \) types, and the latter a syllable whose initial consonant contains a feature (but only in Intraverbal Junction) nasality as an on-gliding to some other feature: plosion (\( nd \)), affrication (\( ndr nd \)), friction (\( nz \)); e.g. \( \text{khong-gi [sku-mdun-la-yang kund\textå: le\textå:]} \) \( \text{cig-gi [bod-yig sgron-bul ra-po zhus.]} \)

'With him too I have been acting as a sort-of lamp to illumine his Tibetan studies.'

dalta (\text{thande} ) kho-'tshos [dalta (\text{thande} ) shes-na,]

'If they --- if they do now know,'

de-ring nga'i nang-la sku-moron (kundå: ) zhis phebs-na-vod.

'A visitor is to come to my house to-day.' (G. and R., altered).

sa-'du (\text{s\text{\textå:}du)} [tshang] --- tshang-gi ko-ti.

Sandu Tshang --- Tshang's bungalow.'

gadras (khandre:) 'dug.

'What is it like?'

'Now what method do you use in your daily work these days, you yourself in it?' (31213131; n Initial Piece).

A number of examples that appear to conform to this criterion have nevertheless already been rejected (1221) on the ground that the pronunciation in question is not LT but Reading-Style. These examples all have to do with the Noun 'di/de, 'this', the Postposition 'di/de, 'the, 'this', and the Verb 'dug, 'is', 'are'; e.g. chu 'di (tjhu ndi) 'khol-gyi-dug (LT: di).

'The water is boiling.' nga-rang-'tsho da 'da'i (tha nde:) khyon phyag-las gnang-nas (LT: de:).

'Now, while you have been doing regular work here, -- --.--.' mchod-chang 'di mmyes-po 'dug-gas (LT: duge:).

'Is this chang pleasant to the taste?' (G. and R., altered).

1224. (Open/half-open degree of vowel aperture ± backness) + (labiality ± occlusion)

A b' A p' O b' O p' a b' a p';

At the Phonological Level each of the above phonetic sequences is analysed as a feature of two Syllables, the former Syllable of the Junction being of the type CV', with /ɔ/a as specific examples of suitable V' types, and the latter a Syllable whose consonants include, initially (but only in Intraverbal Junction), a labial stop.

1 In section 1224 o is distinguished from r.
followed by some other feature: plosion \((b't p't b'd)\), affrication \((b't\| p't\| b'd b'tr p'tr b'dr)\), friction \((b's p's b'f p'f)\), lateral constriction \((b'l)\); e.g. shing-khrol bzo-blta \((s\circ b't\circ) ra[-po] de'i\).

'This thing sort-of shaped like a cabinet.'

lnga-bcu \((\eta b'd\zeta) tham-pa\). 'Fifty'.

rta-bsu \((tA p'su)\). (?) 'Mounted escort.'

rma-bya. \((mab'd\varepsilon/map't\varepsilon)\). 'Peacock.'

rta-gla \((tA'b\varepsilon)\). 'Horse-hire.'

khra-bzo-ba \((trA'p's\circ)\). 'Jeweller.' (21213134; b Initial Piece).
2.

GRAMMATICAL AND PHONOLOGICAL ACCOUNT

OF WORD CONSTITUENTS BY TYPE OF WORD
The previous section (1) dealt with such phonetic criteria as there are for delimiting Words in LT. A grammatical analysis of Words delimited in accordance with these criteria requires that the five grammatical categories introduced at 05 be distinguished: Verb, Noun, Adjective, Postposition, Particle, with five sub-categories of Particle (Verbal, Nominalizing, Nominal, Adjectival, Clausal); and this grammatical analysis is then used to delimit Words wherever the delimiting cannot be done by appeal to the phonetic criteria. As a result of applying this grammatical analysis to LT utterances certain Words can be shown to have only one Grammatical Constituent, and may therefore be treated as examples of a single grammatical category (Verb, Noun, Adjective, Postposition, Nominal-Particle, Verbal-Particle); other Words, on the other hand, are more complex: they require that more than one Grammatical Constituent be distinguished in their grammatical structure, and they therefore exemplify more than one grammatical category at one and the same time (05). In other words there may be a correlation of Word unit with grammatical category; and, for example, a particular Word may then be referred to as a Verb Word, as a Noun Word, or as a Verbal-Particle Word; but frequently
there is no such one-to-one correspondence of unit and category; and, in order to give an adequate account of the grammatical structure of these more complex Words, it becomes necessary to refer to more than one grammatical category.

Even though, however, a Word may comprise Grammatical Constituents that exemplify different grammatical categories, it is frequently the case that the Syllables to which these Grammatical Constituents correspond are bound together by prosodic features as component members of a unity, the Word. One of the most important of these prosodic features, the two-term Junction system, has already been stated (1); but there are also others (Tone, Closure, etc.) that make it unprofitable to give an account of the Grammatical Constituents of Words category by category in complete isolation from each other, as Verb, Noun, Adjective, etc. Where, therefore a number of Syllables corresponding to more than one type of Constituent may share in the statement of such prosodic systems as Tone, Closure, Intonation, these systems are stated for the Word, and for Clause and Sentence, as a unity.

In order to achieve the economies in statement that are to be had from associating more than one type of
Grammatical Constituent with these statements of prosodic systems referable to Sentence, Clause, Word, and Piece, it becomes necessary to base the following analysis on grammatical types of Word rather than on grammatical types of Constituent. Thus the Phonological analysis begins (at 2121) not with separate accounts of Verb Constituents and Verbal-Particle Constituents but with a joint statement of those prosodic systems which apply equally to both Verb Constituents and Particle Constituents as members of the Verb + Particle type of Word. These shared prosodic systems are at the same time also applied, insofar as they do apply, to the Verb Word and to the Particle Word. After the prosodic systems referable to the Word and, where appropriate, to the Clause, and Utterance, have all been stated, it remains to state first the prosodic systems referable to disyllabic and monosyllabic Pieces containing these Constituents, and, secondly, the phonematic systems that are set up to give values to the generalized elements of Syllable structure, C. and V.
Before each grammatical type of Word is subjected to phonological analysis, it is first necessary to state the criteria of the grammatical categories concerned, in the light of which the relevant Constituents are identified as members of these categories. Thus section 21 begins (at 211) with a list of the criteria of the Verb, the Verbal-Particle, and the Nominalizing-Particle, categories; these criteria are followed (at 212) by the phonological analysis of the Vb. + Vbl.-Part. Word., the Vb. Word, the Vb.-Part. Word, and the Vb. + Nomzg. Part ( + Nom. Part.) Word.

The Nominalizing Particle and the Clausal Particle also appear in the thesis: the former is contained both in Vb. + Nomzg. Part. Words as well as in Vb. + Nomzg. Part. + Nom. Part. Words; the latter is contained in Vb. + Vbl. Part. + Clausal Part. Words as well as in Noun. + Cl. Part. Words, Noun + Nom. Part. + Cl. Part. Words, Post. + Cl. Part. Words, Post. + Nom. Part. + Cl. Part. Words. The Nominalizing Particle is dealt with in detail, however, for it occurs only in Words in which the Verb is also exemplified. The Clausal Particle is not dependent in this way on co-occurrence with the Verb and is therefore not dealt with in the thesis in any detail.
Since the Verbal-Particle category is restricted to the Verbal Phrase, and the Verb, though not restricted to the Verbal Phrase, is a characteristic, and almost indispensable category of the Verbal Phrase, an account of Verb, and Verbal-Particle, Constituents approximates to an account of the Verbal Phrase. The Nominal-Particle and the Postposition categories are, without exception, restricted to the Nominal Phrase, and so too, almost without exception, is the Noun; an account of these three types of Constituent therefore approximates to an account of the Nominal Phrase even more closely than that of the Verb and the Verbal-Particle categories does to the Verbal. There remain the Adjective and the Adjective-Particle categories, the two characteristic categories of the Adjectival Phrase; but both of these categories may also be exemplified from the Nominal Phrase too. The thesis is thus, not directly concerned with the Phrase but does nevertheless, deal with the characteristic Word types of one of the three types of Phrase, the Verbal. It therefore seems desirable to give at least a brief account of the Phrase.
The Phrase
The term Phrase is used for a unit that either comprises two or more Word units (two-Word Phrase, three-Word Phrase, etc.) or is itself co-extensive with a single Word unit (one-Word Phrase). Thus, as compared with the Word, the Phrase is as large or larger. As compared with the Clause, however, the Phrase may be co-extensive with the Clause (one-Phrase Clause); or a Clause may comprise two or more Phrases (two-Phrase Clause, three-Phrase Clause, etc.).

Since the Phrase invariably contains a whole number of Words, the boundaries of the Phrase will necessarily coincide with the boundaries of Words (though the reverse is true only for the one-Word Phrase); but while the grounds for delimiting the Word are part phonetic and part grammatical, the grounds for delimiting the Phrase are solely grammatical: convenience of grammatical statement.

The following examples illustrate the relations of the Phrase (in brackets) with the Word (bounded by space) and the Clause (terminated by comma and, finally, by stop):
1. Clause comprising three one-Word Phrases
(kujo:) (tshabe:) (nā:dgū). sku-zhog phyag-phebs
smang-byung.
'Good morning.' [You made your arrival].

ii. Clause comprising one one-Word and three two-Word Phrases
(di: ne:le) (ja:) (le:se rā:le) (ju: ju:bejina:).
de'i sngas-la [var] lhas-se [rang-la bzhugs bzhugs-na-wi:n-na].
'You were living up in Lhasa itself before that, or --?'

iii. Clause comprising one one-Word Phrase
(nos). sno-su. 'Yes.'

iv. Sentence comprising two four-Phrase Clauses, the former comprising three one-Word Phrases and one two-Word Phrase, and the latter three one-Word Phrases and one three-Word Phrase
(dine:) (kalē: pū:le) (tshu:) (phe:nc), (jā:) (de:)
(lo khadze: ts) (the:geje:na).
de-nas ka-lon sbug-la tshur phebs-ni, [yang 'das] lo
gā-tshod tse thad-kyi-yod-na.
'Then, too, about how many years have gone by since you came here to Kalimpong?'

Section 2 continues (at 21) with an account of the characteristic grammatical Word types of the Verbal Phrase, the Verb Word, the Verb + Verbal Particle Word,
and the Verbal-Particle Word, to which have been added from the Nominal Phrase, for the sake of its Verb Constituent, the Verb + Nominalizing-Particle Word.

21. Words containing Verb, and Verbal-Particle, Constituents

As has already been stated, the Verbal Phrase comprises Words of three grammatical types, and of these three types only: Vb. + (Vbl.)-Part., Vb., Vbl.-Part.; but it does not necessarily follow that Words of these three types are confined to the Verbal Phrase. The Vb. + Vbl. Part. Word is in fact limited to the Vbl. Phrase, and to identify a Word as being Vb. + Vbl.-Part. is therefore equivalent to identifying an example of the Vbl. Phrase; but the Vb. Word may also be comprised in an Adjectival Phrase, e.g. ju: trobu, bzhugs spro-po, 'pleasant to live in' (Vb.: bzhugs; Adj.: spro; Adj. Part.: po); je: s:be, bzhes 'os-pa, 'fit to eat' (Vb.: bzhes; Adj.: 'os; Adj. Part.: pa); the Vb. + Nomzg. Part Word must, and the Vbl.-Part. Word may, be comprised in a Nominal Phrase, e.g. ma jimbe:, ma vin-pas, 'through our not being' (Vb.: vin; Vbl. Part.: ma; Nomzg. Part.: pa-); ma jimbe, ma shes-pa, '[their] not knowing' (Vb.: shes; Vbl. Part.: ma; Nomzg. Part.: pa). Even so, it is with the Verbal Phrase that the Vb. Word and
the Vbl.-Part. Word are more frequently associated.

Section 21 is divided into two sub-sections (cf. also p. 91). In the former of these (211) are given the criteria of the three grammatical categories into which the four types of Word considered in this section (Vb. + Vbl. Part. Word, Vb. Word, Vbl.-Part. Word, Vb. + Nomzg. Part. Word) are analysable; in the latter (212) these four types of Word are subjected to phonological analysis.

211. Grammatical Criteria

The grammatical criteria given in this section fall under four heads: (2111), Verb (Vb.); (2112), Verbal Particle (Vbl. Part.); (2113), both Verb and Verbal Particle; (2114), Nominalizing Particle (Nomzg. Part.).

2111. Verb

The criteria of the Verb category are the following five (2111 - 5).

21111. Flexion

Flexion is a characteristic of the Verb only; and any Grammatical Constituent that can be shown to be one of two or more related inflected forms must therefore be a Verb. According to their formal scatter inflecting Verbs (for non-inflecting Verbs, see p. 90) may be termed (a) two-form, (b) three-form; e.g.
a. Two-form

i. \( sa-/s:\), \( so(-) \);
\( bzhag, zhog; \) 'put'
\( da\) [\( ade-pa\)] \( ra-po\) \( gcig-la\) \( cha\) \( bzhag-na\) (\( sa:ne\)), [Interuption].

'Now, if you put your trust in one sort-of method,'

'dir zhog (\( so:\)).' 'Put it here.'

ii. \( ju-, sy: (-) \);
\( zhu, zhus; \) 'offer'
\( [da]\) \( gzhan-pa\) \( bka'-mol\) \( ga-re\) \( zhu-rgyu\) (\( sugju\)) \( dug-ga.\)

'Now what else is there to discuss?'

shes ['\( das\)] \( nga-tsho\) (\( phebs-na\)), \( da-ga'i-se\) \( bka'-mol\)
\( ra-po\) [\( zhus (\( sy:\)) mchog\)] \( zhus (\( sy:\)) mchog-gi-red-pa.\)

'You know, if we come here, we must have a spontaneous conversation --- we must, must we not?'

b. Three-form

i. \( sa-/s:\), \( se: -, so(-) \);
\( za/bza', bzas, bzo; \) 'eat'
\( bod-kyi\) \( mi'-tshos\) \( rtsam-pa\) \( bza'-ba-red\) (\( sabere\)).

'The people of Tibet eat tsampa.'

\( bod-kyi\) \( mi'-tshos\) 'bras btsos-nas, bzas-pa-red (\( se:bere\)).

'The people from Tibet cooked rice, and ate it.'

'di bzo-shig (\( soji\)).' 'Eat this!'

1 Of the alternative phonetic transcriptions separated by an oblique, the former is appropriate to Open Words and the latter to Close (\( 212123\), Closure). Since a common phonological formula is statable for both Syllables, the alternatives are not treated as an example of flexion.
ii. ta-/t∧-, tε:-, tœ:(-); blta, bltas, ltos;
'look at'

dbyin-ji mi-rigs dgong-star sbas-se-kob bltad-mo
blta-ba-red (tabere).
'British people see a film show in the evenings.'
sab-kyas rtse po ta la-la bltad-mo bltas-pa-red (tε:berε).
'The Sahib saw a performance at the Potala.'
mig yag-po ltos (tœ:). 'Look carefully!'

Thus, identifying an example of flexion is equivalent
to identifying an example of the Verb category. It
should however be emphasized that by no means all Verbs
inflect; e.g.
c. One-form

1. naŋ-/naŋ-/nā:(-); smang; 'grant', 'make', 'do'
sku-zhog phyag-phebs smang-byung (nā:dʒū:)
'Good morning.' [You made your arrival].

ii. Ju:g-/Ju:g-/Ju:(-); bzhugs; 'sit', 'stay', 'live'.
dei sngas-la [var.] lhas-ta rang-la bzhugs bzhugs-pa-
yin-na (Ju: Ju:bejīna:), -- [Interruption].
'You were living up in Lhasa itself before that, or
-- --' [Interruption].

1 The phonetic transcriptions separated by an oblique
are appropriate to different prosodic conditions, of
Junction or of Closure. Since the same phonological
formulas may be stated for these variants, the phonetic
differences between them are not ascribed to flexion.
'dir bzhugs-pa-red (fu:gere). 'You sat here.'

21112. **Colligation with Verbal Particle (Vbl. Part.)**

A distinguishing feature of the Verb category is that it is colligable within Word boundaries with the Verbal-Particle category, a characteristic that it shares with no other category. Any Grammatical Constituents that are associated within Word limits with Constituents identified as members of the Verbal-Particle category must therefore, unless it is itself a member of that category, be classified as a Verb; e.g. byas-tsang ("tshen:dzag"), chibs-bsgyur gmang-gi-mi-'dug ("ngimindu: ").

'Therefore he is not coming.'

Vb. (byas), Part. (tsang); Vb. (gmang), Part. (gi, mi, 'dug).

las-ka de byas-na ("tshen:ne"), yag-po a-yong ("ajul ").

'If you do this work, I doubt whether it will turn out well.' (Bell).

Vb. (byas), Part. (na); Vb. (yong), Part. (a).


'Then the time of year just now actually --- the temperature keeps on changing very quickly, does it not?'

Vb. (byas), Part. (bzhin); Vb. ('gro), Part. (gi, 'dug, ka).
It is almost possible to make the further statement that in any Word in which the Verbal-Particle category is exemplified so also is the Verb; for the sole exceptions to such a statement are the Verbal-Particle Words described below (211121 - 6): Negative-Particle *ma*, Interrogative-Particle *dang*, Imperative-Particle *dang/da*, Non-Sentence-final-Particle *de'i/te/tai/'das/da'i*, Declarative-Particle *pro/'gro*, and Imperative-Particle *do*; and certain Words contained in answers to General-Interrogative Sentences and in echo Sentences (211127).

As far as the Verbal-Particle-Word Particles (211121 - 6) are concerned, the colligation of Verb and Verbal-Particle is not within the Word but within the Phrase; but this intra-Phrasal colligation with the Verbal-Particle sub-category is also restricted to the Verb, and therefore a criterion of the Verb, except that the Negative sub-category of Verbal Particle (*ma/mi*) colligates not only with the Verb but also with the Nominal Particle (within the Nominal Phrase, p. 103). In any Phrase in which one of the Verbal-Particle Words *ma, dang, dang/da, de'i, pro/'gro, do* is exemplified, so also must a member of the Verb category be; but this is not true of the Particle Words considered in 211127.
The Negative Particle

The Negative sub-category of Verbal Particle \((ma/mi)\) may be colligated with the Verb within the limits of the Word, as in the first of the three examples at 21112: \(\text{nangimindu}:, \text{mnang-gi-mi-'dug} \) (Vb. \(\text{mnang}\); Neg. Part. \(\text{mi}\), other sub-categories of Part. \(\text{gi, 'dug}\)); or it may be colligated with it within Phrase limits but beyond Word limits, as in the following examples, in which there are phonetic criteria for treating \(\text{ma}\) as a Word (Verbal-Particle Word, pp. 30-31). In colligation of this type it is the initial Syllable of the Word following the Verbal-Particle Word that is identified as a Verb-Constituent Syllable, or, briefly, as a Verb Syllable; e.g.,

\[
\text{da ma-gzhi } [\text{de-ni}] \text{ gsol-ja-las phebs ma thub-[tsang] (ma thu:dzä:)},
\]

'Now, since, then, he cannot in fact come to tea too,

\[
\text{mas-don ([sic; gnad-don]) 'di rtogs ma mnang-tsang (ma nanzä:),}
\]

'Since they do not understand the purpose of it,'

In these two examples the Verb (thub, \(\text{mnang}\)) is also

\[
\text{1 -las is a phonetic spelling for la-ya-g: gsol-ja-
}\]

\[
\text{la-ya-g, 'to tea too'.}
\]
identifiable as such under criterion 21112, colligation within Word limits with the Verbal-Particle category (tsang).

Criterion 211121 is valid not only for the Verbal Phrase but also for those Nominal Phrases which contain a Vb. + Nomzg.-Part. Word; e.g.

\[ \text{de'i [yar cig] nga-rang'-tsho cig-por ma vin-pas} \]

(ma jimbe:),

'Through our not being alone up here, - - -."


\[ \text{shes phal-cher [cig] nga-[rang-]'tsho sgang-ka log vig-ge} \]

ma shes-pa (ma jimbe) sha-stag byas, - - -.

'Supposing, you know, that it is just that we do not, as a rule, all know how to read and write, - - -.'


211122. The Interrogative Particle dang

A single-member sub-category of Interrogative Particle (dang) resembles the Negative sub-category of Verbal Particle in that it is colligable with the Verb within Phrase limits but not within Word limits, and differs from the Negative Particle in that it does not alternate
between colligation within, and colligation beyond, Word limits. Thus, in this case, the initial Syllable of the Word preceding the Particle Word (dang) may be identified as a Verb Syllable; or, alternatively, the preceding Word, if monosyllabic, must be a Verb Word; e.g. pha-gi rdo-par rang red dang (ri tā:).

'Is that actually a litho press over there?' bsgrigs-kyi-vod-red dang (drig'o:tā:).

'Are they arranged in order?'


'Is not there any sugar for export there, in that land of sugar?'

mi de zhe-drag vag-po red [dang] (ri tā).

'He is a very good man, is he not?'

211123. The Imperative Particle dang/da

A single-member sub-category of Imperative Particle (dang) is not only homophonous with the Interrogative Particle dang of 211122, but is also similar to it as regards colligability with the Verb, except that while the Interrogative-Particle Word dang may be preceded by either a Vb. + Part. Word (jo:mari tā, vog-ma-red dang, 211122) or by a Vb. Word (ri tā, red dang, 211122), the Imperative-Particle Word dang may be preceded only by
a Vb. Word; e.g.

shes dang (ʃi:n tā). 'I must tell you.' [Know!]
ltos dang (tø: tā). 'Look!'
gwog-po-la dris dang (tʁi: tā). 'Ask the servants!'

Thus, any Word immediately preceding the Imperative-Particle Word dang is identifiable as a Verb Word.

A few examples have also been recorded in which the Syllable dang/da is characterized by initial voicing, in which case the Syllable has not the status of a separate Word; e.g.

nga-la chu dkar-yol gang ster-da (te:da).

'Please give me a cup of water.' (Bell)

Cf. also gro/'gro (211125) and do (211126).

211124. The Non-Sentence-final Particle de'ı/te/ta'ı/

'das/da'ı

Like the Interrogative-Particle Word dang (211122) the non-Sentence-final-Particle Word de'ı may be preceded by either a Verb + Particle Word or a Verb Word. Therefore, either (i) the initial Syllable of the preceding Word may be identified as a Verb Syllable, with, as sole exceptions, Clauses in which the Negative Particle mi represents the ante-penultimate category of the Clause, and is therefore initial in the Verb +
Particle Word (pp. 123-4, 133); or (ii) the preceding Word, if monosyllabic, must be a Verb Word (Verb Complement); e.g.

i. Vb. + Part. Word
de-ni gsungs-rnams gang min-mdzad [yas-po] yod-pa[-red, zer-ra-red,] go-nyung ta'i (khopū: de:),
'Well, then, his namthar-singing is incredibly good, they say, --- I had always heard, but ---.'
gsar-'gyur-la rim-pa ra-po gnang-song 'das (nā:sū de),
'He did a sort of series in the newspaper, but ---.'

ii. Vb. Word
[de-nas] ma-khud pa-rad-se'i phyag-dpe skyon-rgyu 'dug de'i (du:de),
'Then there was Marco Pallis's book to be printed, but ---.'

lhas-sa khul-la da-lta tshag-par-se [cis 'di-'dras] med de'i (me: de),
'We have not at present got any letterpress like this in the Lhasa district, but ---.'

211125. The Dubitative Particle gro/'gro

In the case of one Particle it is difficult to determine whether it should be treated as a Particle Word or not; for the evidence is conflicting. The Syllable gro/'gro has been recorded as characterized initially by
either voice (\textit{d\textipa{c}}) or voicelessness (\textit{t\textipa{c}}). From the point of view of Junction the latter pronunciation provides grounds for treating this Syllable as a monosyllabic Word (11211). In Junction with a preceding Syllable that is not characterized by final nasality the pronunciation with initial voicelessness, \textit{e.g.} \textit{me: t\textipa{c}} (\textit{me: med \textipa{c}/\textipa{gro}}, seems more common than the one with voice, \textit{e.g.} \textit{me:d\textipa{c}}; but in Junction with a preceding Syllable that is characterized by final nasality, however, initial voice alone is possible, \textit{e.g.} \textit{jind\textipa{c}}, \textit{mend\textipa{c}} (\textit{vin-gro/\textipa{gro}}, \textit{min-gro/\textipa{gro}}); and, further, these last two examples provide grounds for treating this Syllable as a component Syllable of the same Word as \textit{vin} and \textit{min} (1221, \textit{-ndr-}). Examples are as follows:

\begin{verbatim}
ma-gzh\textipa{h}i da da-rin kha-sang[-yang 'di shog-bu] 'phral de zhe-po rang sprad dgos-kyi-mad [gro] (\textit{t\textipa{c}}).
'I suppose, actually, that these days too they must not give very much of it --- paper --- temporarily.'
de'i rkyen-gyi [de]-ni snyung-g\textipa{h}i de phog-zi-mad-'gro (\textit{pho:ge\textipa{e}:d\textipa{c}}), bsam-g\textipa{y}is.
For that reason, then, he is afraid he might catch this illness.'
kho phag-ri-la bsad-kyi-yin-'gro (\textit{de:gejind\textipa{c}}).
\end{verbatim}
'He will probably stay at Phari.' (Bell).

\[\text{\textit{gro}/'\textit{gro}}\] is therefore treated as a Particle Word only when characterized by initial voicelessness, in which case its position as regards colligation of Verb and Particle is the same as that of \textit{dang} (211123).

211126. The Imperative Particle \textit{do}

An instance has been recorded in which the Particle-Syllable \textit{do} is characterized by initial voicelessness, and must therefore be treated in this instance as in an Interverbal relation with the previous Syllable under criterion 11211:

\[\text{zhogs}-\text{gas snga-po} \text{ gangs ma bzhu rong-nas, nga-tsho '\textit{gro do} (dro to).}\]

'Let us start very early before the snow becomes soft.' (Bell);

elsewhere \textit{do} is characterized by initial voice, and treated as in Intraverbal-Junction with the previous Syllable; e.g. \textit{nando, gsng-do, th\text{\textcolor{red}{e}}:do, thad-do, tsho:do, mchod-do}. Cf. also \textit{dang/da}, 211123.

211127. Other Words comprising nothing but Particles

Words comprising one or more Particles may also be contained in answers to the questions of another speaker and in echo Sentences, expressions of agreement with another speaker, echoing part of his utterance, as in \textit{(ii)}
of the following pairs of utterances:

i. khyod rdo-rje cling-la 'gro-myong-ngas.
   (Vb.: 'gro; Part.: myong, ngas.)
   'Have you ever been to Darjeeling?'

ii. ma-myong (man5:).
   (Part.: ma, myong.)
   'No' (lit. never been) (Bell).

i. bu bzhugs-gdan 'iags-yod-nas.
   (Vb.: 'iags; Part.: yod, nas).
   'Are you at home, Rinzin?'

ii. la yod (je:).
   (Part.: yod).
   'Yes, I am.'

i. bod-kvi skor-la par-skyon sgsang min-mzad vas-go yong-gi-red.
   (Vb.: yong; Part.: gi, red)
   'The printing will turn out incredibly well for Tibet.'

ii. no-su. da-ga rang red (re).
   (Part.: red)
   'Yes, it certainly will.'

1 bu has been translated as 'Rinzin' [the name of the person addressed] here; for an aunt would hardly address her nephew as 'son' in a corresponding English-language situation.
Although the Verb is colligable, within Word limits, with the Verbal Particle, it does not follow that the Verb need always be colligated with it, even within the Verbal Phrase (see the Verb Word, pp. 31-32).

Further, the Verbal-Particle is not the only grammatical category that is colligable with the Verb within Word limits: there is another sub-category of Particle, the Nominalizing-Particle, the colligation of which with the Verb is also a criterion of the Verb; and in Words in which this sub-category of Particle is exemplified, so also may the Nominal sub-category be.

Colligation with Nominalizing (Nomzg.), and Nominal (Nom.), Particle

The Verb is also colligable within Word boundaries with the Nominalizing sub-category of Particle, a characteristic that it shares with no other grammatical category except the Nominal-Particle. The Constituent preceding an example of the Nomzg.-Part. category is thereby identified as a member of the Verb category; for the order of categories within this type of Word (Nomzd.-Vb. Word) is Vb., Nomzg.-Part., (Nom. Part., if exemplified); e.g.

ghi-ri-si phi-rin-si phi-dar zer-nyan (seŋe:) goig 'dug-ga[-na].
'-- there is someone called Prince Peter of Greece, is there not? Mm?'

Vb. (zer), Nomzg. Part. (nyan).

...There is someone called Prince Peter of Greece, is there not? Mm?'

Vb. (zer), Nomzg. Part. (nyan).

'For the colloquial we are now researching into styles of conversation, and the production of sounds in it, and those things.'

Vb. (gnang, yong); Nomzg. Part. (batang); Nom. Part. (gi).

'I saw this letterpress printed by Mr. Tharchin before that, up in the Lhasa district.'

Vb. (skyon); Nomzg. Part. (pa); Nom. Part. (-'i).

'First, where did you learn this, how to set up a type press?'

Vb. (slab), Nomzg. Part. (pa); Vb. (bscrips),
Nomzg. Part. (pa); Vb. (gmang), Nomzg. Part. (ngyu).

gmang-bstang-gi and skyon-pa'i in the second and third of the above four examples also serve to illustrate the colligation within Word limits of the Verb and the Nominal-Particle categories. This colligation, which distinguishes the Verb from the Verbal Particle, but from no other category, is possible only in Words in which the Nominalizing Particle is also represented, and it is the Nominalizing-Part. category that follows the Verb in the grammatical structure of these Words, not the Nominal Particle.

There is this difference between the colligation of Verb and Verbal-Particle categories (21112) and the colligation of Verb and Nominalizing-Particle (21113): the former, with the single exception of the Verbal-Particle ma, is confined to the Verbal Phrase, and the latter to the Nominal Phrase.

The Verb, then, is not exemplified only in the Verbal Phrase: if colligated with the Nominalizing Particle (21113), it may also be exemplified in the Nominal Phrase; in which case the colligation is within Word boundaries. It is also possible for the Verb to be exemplified in the Adjectival Phrase; in which case it is colligated with the Adjective category in the order
Verb, Adjective, and the colligation is not within Word boundaries; e.g.

bzhugs spro-po (ju: tróbu) 'dug-gas.
'Would it be pleasant to live in?'
Vb. (bzhugs); Adj. (spro).

bzhes 'os-pa (je: ø:be) mi-'dug.
'It would not be fit to eat.'
Vb. (bzhes); Adj. ('os).

Order of Categories

Within Clause and Sentence

With certain exceptions (pp. 117-20) the final Phrase in Clause and Sentence is Verbal; and those grammatical categories which can be exemplified from the Verbal Phrase are therefore final in Clause and Sentence. There are only two such categories: Verb, Verbal Particle.

There are Sentences in which either the Verb or the Verbal Particle is alone exemplified in the Verbal Phrase. Where the Verb is not exemplified in the Verbal Phrase (211127) the question of its place in the order of categories within the Clause does not of course arise; but where the Verb is exemplified and the Verbal Particle is not, it occupies the ultimate place; e.g. la red (re:). 'Yes, it is.' Vb. (red).
par skyon-rog snang (nā:), zhu-dgo.
'I must say to him: please print it.' Vb. (snang)
mi-ga'i mar phyin (tʃhī:). 'I went down there'.
Vb. (phyin).

The Verb also occupies the ultimate place in the
Clause in those Clauses in which the Verbal Particle
is exemplified only by a member of the small pre-Verb
sub-category of Verbal Particle comprising only the
Negative Particle (ma/mi) and the Dubitative Particle
(a); e.g.
ltas-rtsi ltas-rtsi ma tog (ma to:)
'Not counting a tiny bit.'
Vb. (tog); pre-Verb. Part. (Neg.) (ma).
chang 'di vag-po a-win (?ajī:)
'I doubt whether this beer is all right.'
Vb. (win); pre-Verb Part. (Dubitat.)(a).
gas mi-'dug (mindu:).
'It would not matter.'
Vb. ('dug); pre-Verb Part. (Neg.) (mi).

Otherwise, however, i.e. where both Verb and
Verbal Particle are exemplified in the Verbal Phrase
and the Verbal Particle is represented either (i), solely,
or, (ii), in addition to the pre-Verb sub-category,
(ma/mi, a), by the post-Verb sub-category, then the Verb is not ultimate in the order of categories within the Clause but penultimate. It is in fact this, the penultimate, place that is the usual place for the Verb; for by far the majority of Verbal Particles are members of the post-Verb sub-category of Particle. Within the Clause, then, the Verb place is post-Noun, post-Adjective, post-Postposition, etc., but not post-Verbal-Particle except for the small sub-category of Verbal Particle (the pre-Verb) just referred to.

Examples of the Verb occupying the penultimate place in the clause are presented under the two heads: (i), only the post-Verb sub-category of Verbal Particle represented; (ii), both post-Verb and pre-Verb sub-categories represented.

1. post-Verb sub-category of Verbal Particle only
'Then, too, about how many years have gone by since you came here to Kalimpong?'
Non-Sentence-final Clause: Vb. (phebs), Part. (ni);
Sentence-final Clause: Vb. (thad), Part. (kyi, vod, na).
'You were living up in Lhasa itself before that, or --- ?'
Vb. (bzhugs, bzhugs), Part. (pa, vin, na).
de-nas ['di-ni] rim-pas phar par skyon-na[s] (kjö:ne),
bsgrigs-kyi-vod-red dang (driga:r tā).

'Next, then, after you have printed them off in succession, are they arranged in order?'
Non-Sent.-final Clause: Vb. (skyon), Part. (na[s]);
Sent.-final Clause: Vb. (bsgrigs), Part. (kyi, yod, red, dang).

ii. both post-Verb and pre-Verb sub-categories of Particle
chang 'di vag-po a-vin-na (?ajf:ne).
'I doubt whether this beer is all right.'
Vb. (vin), Part.: i. post-Vb. (na); ii. pre-Vb. (a)
da da-rin kha-sa [ka-len sbug] tsha-ba tsha-sa'i mi-'dug-gas (minduge:).

'Now, has not Kalimpong become a hot spot too these days?'
Vb. ('dug); Part.: i. post-Vb. (gas); ii. pre-Vb. (mi).

Although either the ultimate or the penultimate place in order of categories in the Clause and Sentence is, apart from certain exceptions (pp. 117-20) occupied by the Verb, it will be recalled that the Verb is not restricted to the penultimate place (p. 96). In the following examples criterion 2141 is satisfied (for the penultimate place in the order of categories within
the Clause is occupied by the Verb); but the Verb is at the same time also exemplified elsewhere, either in the Verbal, the Nominal, or the Adjectival, Phrase; e.g.

a. Verbal Phrase

kho-rang khyer yong ma thub-tsang (che: j5: ma thu:dzä:), 'Since he cannot bring it,'

Vb. i. penultimate: thub; ii. non-ultimate/penultimate: khyer, yong.

b. Nominal Phrase

'di'i rkyen-zvi sgang-gas 'di-'dras[-se] rbad klog thub-pa byas (lo: thube t∫he:).

'Having thus made it so that in precisely this way everyone could read.'

Vb. i. ultimate: byas; ii. non-ultimate/penultimate: klog, thub.

c. Adjectival Phrase

dba'iin-ji lung-par bzhugs (fu:) spro-po 'dug-gas (duge:).

'Would it be pleasant to live in Britain?'

Vb. i. penultimate: 'dug; ii. non-ultimate/penultimate: bzhugs.

The exceptions to criterion 31141, i.e. Clauses and Sentences in which the final Phrase is not a Verbal Phrase, are of two types: (i), Clauses in which there is no Verbal Phrase; (ii), Sentences in which one or more
Nominal Phrases follow the last Verbal Phrase of the Sentence as an afterthought; e.g.

i. Clauses without Verbal Phrase

*lo sum.* 

*lo gsam.*  'Three years.'

N. + N.

*la pyːdze: rā:*  *[la spus-tshad rang]*.  'An actual specimen.'

N. + N. + Post.

ii. Nominal Phrase as an Afterthought

In this type of exception all the Syllables of the Nominal Phrases that follow the Verbal Phrase are characterized by a low and level pitch.

---

*thā thirāː khasāː pindaː tʃhalcː rimbo khari*

---

*nangajēː na naranzēː di.*

*[da da-rin kha-sang nyin-ltar phyag-las rim-pa ga-re gnang-gi-yod-na nga-rang-'tshos 'di].*

'And now your daily work these days --- what method do you use, --- you yourself in it?'

Vbl. Phrase:  Vbl. (gnang), Vbl. Part. (gi, yod, na);
Nom. Phrases:  N. (nga-rang), Nom. Part. ('tsho-, -g);
N. ('di).
'First, where did you learn this, -- how to set up your type press?'

Vbl. Phrase: Vb. ([gnang]), Vbl. Part. ([ba], vin, gmang); Nom. Phrases: N. (nga-rang), Nom. Part. ('tsho-, -'i); N. (lcags-par); Vb. (bsgrigs), Nomzg. Part. (pa); Vb. (gnang), Nomzg. Part. (rgyu).

The above two types of Clause form exceptions to criterion 21441; there are in addition Sentences to which this criterion cannot fairly be applied: Sentences that are interrupted by another speaker, and perforce left un concluded; e.g.

phal-cher ma-gas phyag-ris [sku-mdun rin-po che'i] [Interrupted].

'Usually down there -- - letters -- - His Holiness,
the Dalai Lama's -- - ' [Interruption].

Di mêmbejá: le:sa khy:le tʃhale: [Interruption].

de min-pa'i[-yang] lhas-sa khul-la phyag-las [Interruption].

' Apart, too, from that, in the Lhasa district your work -- - ' [Interruption].

211142. Within Word

The previous paragraphs have dealt with the Verb category in the light of its place in the order of categories in the Clause and Sentence; it remains to give some account of the order of grammatical categories within the Word, in order to add to the criteria that distinguish the Verb from the Verbal-Particle, the Nominalizing-Particle, and the Nominal-Particle, categories.

Where both Verb and Verbal-Particle categories can be exemplified from the same Word, the order of categories is Verb -- Particle and, less commonly, either Particle -- Verb, or Particle -- Verb -- Particle. Except in Words of the Particle -- Verb type, therefore, the Verb is pre-Particle, though, in the Particle -- Verb -- Particle

1 Because of a difference in Phrase order between English and Tibetan, the Verbal Phrase being regularly Sentence-final in Tibetan and commonly non-Sentence-final in English, the interruption sometimes has to be shown as non-Sentence-final in the English translation.
type, it is also at the same time post-Particle. The two orders Particle -- Verb and Particle -- Verb -- Particle are possible only in Words in which the Verb is exemplified by certain members of its Complement sub-category (red, 'dug, vin, vod, byung, yong), the pre-Verbal Particle being exemplified by ma/mi (Negative) and a (Dubitative). Apart from Words of this type the Verb is the initial Constituent in the grammatical structure of the Verb + Particle Word; and the initial Syllable of this Word can be identified as a Verb Syllable.

In Words in which, on the other hand, the Verb and the Nominalizing-Particle categories are exemplified (i.e. in the Nominal Phrase), the order of categories is invariably Verb -- Particle; and if the Nominal-Particle category is also exemplified in a Word of this type, as it may or may not be, then the order of categories is Verb -- Nominalizing-Particle -- Nominal-Particle. Thus, the initial Syllable of the Word may be identified as a Verb Syllable in all such cases.

Examples to illustrate criterion 21142 in which the Verb not only is pre-Particle in order of categories within the Word but also occupies the initial place, are as follows:

(tshi:ni), chu-tshod bcu-rgig bar-du las-ka byed
dgos-kyi[-vod] (gu:jo)
'I go there from ten o'clock in the morning, and have to
work until eleven o'clock.'
Vb. (phyin), Part. (ni); Vb. (dgos), Part. (kyi, vod).
da-ring 'das sab-kyi[g] sba-bu laza gsol-ja'i gdan-'dren
zhus (jo:) gnang.
'The Sahib invited Babu La here to tea to-day.'
Vb. (zhu), Nomzg. Part. (-s; i.e. [ba]);
rgyal-blon bstan-bcos zer-[nyan (sêpê:) 'di] sna-tshogs
par-bkod ra-po gnang-zhad (nâ:ja).
'-- we have made sort-of printings of the "Brgyal-blon
Bstan-bcos", etc.'
Vb. (zer), Nomzg. Part. (nyan); Vb. (gnang), Vbl. Part.
(zhad).

1 The spelling zhus of the Tibetan text is a phonetic
spelling that P. has substituted for the regular spelling
(zhu-ba) in order to show that the pronunciation in the
utterance is not the phonetically disyllabic juwe appropriate
to the Reading Style but the phonetically monosyllabic jo:
of LT. His choice of spelling is unfortunate; for zhus
would ordinarily be taken to symbolize a pronunciation ñy:.
There is in fact no unambiguous way of symbolizing jo:
in the Tibetan orthography; but the regular spelling
zhu-ba, though phonetically ambiguous, has the advantage
of not obscuring the grammatical analysis: Vb. (zhu),
Nomzg. Part. (ba).
"Please invite him to come up."

Vb. (mang), Vbl. Part. (ze); Vb. (shu), Nomzg. Part. (rog).

In the examples that follow the Verbal-Particle category occupies not only the final, but also the initial, place in the word, thus making it impossible for the initial syllable to correspond to a Verb Constituent; but the Verb category is still non-final, and is still pre-Particle as regards certain members of the Particle category (the post-Verb sub-category); e.g.

\textit{chang 'di vag-po a-yin-na (\texttext{n\texttext{\texttext{\texttext{{}}}j\texttext{\texttext{\texttext{{}}}i:\texttext{ne}}})}.}

'I doubt whether this beer is all right."

Vb. (\textit{vin}), Vbl. Part.: i. pre-Verbal (\textit{a}), ii. post-Verbal (\textit{na}).

\textit{da da-ring kha-sa[ng ka-lon sbug] tsha-ba tsha-sa'it mi-'dug-gas (\texttext{minduge:}).}

'Now, is not Kalimpong a hot spot too these days?'

Vb. (\textit{'dug}), Vbl. Part.: i. pre-Verbal (\textit{mi}), ii. post-Verbal (\textit{gas}).

[\textit{pha-gas} ga-re \textit{vin-na'i khungs dag-po ma-byung-shes (\texttext{m\texttext{\texttext{\texttext{{}}}d\texttext{\texttext{\texttext{{}}}j\texttext{\texttext{\texttext{{}}}i}}})},

'When something there has not got a pure source,'
The two Particles given here (a, mi/ma) are the only two to have been recorded as occupying the initial, and therefore a pre-Verbal, place in the Word. They form a sub-category of Verbal Particle that is colligable within the Word with the Complement sub-category of Verb but not with the Main and the Auxiliary sub-categories.

21115. **Tonal Classification**

A partial criterion of the Verb category, serving to distinguish it from the Particle and Postposition categories but not from the Noun and the Adjective, is the fact that any member of the Verb category may be given a tonal classification, as being limited to Tone-One or to Tone-Two Words; whence each member may be classified as either a Tone-One-Word Verb (or, more briefly, Tone-One Verb), or as a Tone-Two-Word, or Tone-Two, Verb. This difference between the Verb and the Particle categories has already been considered (pp. 38-41), and is not further discussed here.

2112. **Verbal-Phrase (or Verbal) Particle**

The criteria of the Verbal-Particle category are three in number: 21121 - 3.

21121. **Colligation with the Verb**

Within Word limits the Verbal-Particle category is colligable only with the Verb; e.g.
'o-na (one), rgyug-a (jü:a:).
'Off you go, then.'
Vb. ('o), Part. (na); Vb. (rgyug), Part. (a).
"leave late, phyer-phebs gnang-byung (nya:dʒū).
'Good morning, Auntie.'
Vb. (gnang), Part. (byung).
la mi-'dug (mindu:). 'No, it would not be.'
Vb. ('dug), Part. (mi).
rdo-rie gling-la skyid-po a-yong (a:jū).
'But would it really be beautiful at Darjeeling?'
Vb. (yong), Part. (a).

Any Constituent that, within the Word, precedes a Constituent identified as a Verb, as in the third and fourth examples above (mindu:, a:jū), is thereby identified as a member of the Verbal-Particle category; but in the case of Constituents following the Verb within Word limits, the position is not so straightforward; for, while the following Constituents may be Verbal Particles, they may also be Nominalizing and Nominal Particles (21114), and this latter possibility must first be excluded.

With few exceptions (211127) the Verbal-Particle is necessarily colligated with the Verb; and, though it is generally the case that this colligation is within
Word limits, as in all the examples so far given in this section (21121), it is not invariably so. There are sub-sections of Verbal Particle that are colligable with the Verb within the Phrase but not within the Word. The Verbal-Particle Words in question, the Negative (ma), the Interrogative (dang), the Imperative (dang/da), the Non-Sentence-final (de'1/te/ta'i/'das/da'i), the Dubitative (gro/'gro), and the Imperative (do), have been considered above (211121-6); and the only one of these to be in need of more detailed consideration is the Negative Particle (ma/mi).

The Negative Particle alternates between colligation with the Verb within Word limits and colligation with the Verb not within Word but within Phrase limits. The following are examples of the colligation of Negative Particle and Verb within Word limits:

kho-'tsho'i [yod-pa-ma-red (jo:mare), zer-gyi-'dug]. 'It is said they have not any.'
Vb. (yod), Neg. Part. (ma).
byas-tsang, chibs-bsgyur mgang-mi-mi-'dug (nargimindu:). 'And so he is not coming.'
Vb. (mgang), Neg. Part. (mi).
vag-po red, gsungs-nyan-'tsho tsang-ni mi-'dug (mindu). 'There would be absolutely no-one that would say it is
good'.

Vb. ('dug), Neg. Part. (mi).

When colligated not within Word, but still within Phrase, limits the Negative Particle is exceptional in that it is pre-Verbal, and also in that, like the Interrogative and Imperative Particles dang, and the Non-Sentence-final-Clause Particle da'i/de'i, the Constituent in question corresponds to a Word (Verbal-Particle Word, pp. 30-32); e.g.

\[\text{dngos-gnas gsungs-rname gnang-nga ra[-po 'di-'dras-se gas] go-thos ma byung (ma t\text{h}\text{\text{\text{h}}}).}\]

'Honestly I had not heard any namthar-singing like that.'

Vb. (byung), Neg. Part. (ma).

\[\text{mgo dang rkub ra-po ma tshang-shes (ma sh\text{\text{\text{h}}}:fi)},\]

'When it has not been completed sort-of from head to foot,'

Vb. (tshang), Neg. Part. (ma).

\[\text{da ma-gzhi [de-ni] gsol-ja-las rhebs ma thub-[tsang]}\]

(ma thu:dz\text{\text{\text{h}}}):

'Now, since, then, he cannot actually come to tea too,'

Vb. (thub), Neg. Part. (ma).

In the above examples it is the Constituent immediately

\[\text{1 A careful pronunciation: madʒū is thought to be usual; cf. madʒū:sT (ma-byung-shes).}\]
following the Negative Particle that is identifiable as a Verb; and this identification is equally valid for Sentences in which the Verb category is exemplified twice or three times in the Verbal Phrase. The Negative Particle may then be both pre-Verbal and post-Verbal at the same time, pre-Verbal in the case of the final Verb of the Phrase, whether Main or Auxiliary, and post-Verbal in the case of the remaining (Main) Verb or Verbs; e.g.

\[ \text{kho-rang khyer yong ma thub-tsang (che: j5: ma thu:dzâ:),} \]
'Since he cannot bring it,'

\[ \text{Vb. i. pre-Particle (khyer, yong), ii. post-Part. (thub);} \]
\[ \text{Neg. Part. (ma).} \]

\[ \text{bsnam phebs ma thub-pa-red (nam phe: ma thubere).} \]
'He was unable to bring it.'

\[ \text{Vb. i. pre-Part. (bsnam, phebs), ii. post-Part. (thub);} \]
\[ \text{Part. (ma).} \]

\[ \text{log yong ma chog-pa-red (lo: j5: ma tjho:bere).} \]
'He was not allowed to return.'

\[ \text{Vb. i. pre-Part. (log, yong), ii. post-Part. (chog);} \]
\[ \text{Part. (ma).} \]

In all three of the above examples the Constituent immediately following the Negative Particle (ma) in the Verbal Phrase is identifiable as a Verb Constituent.
The colligation of Verb and Negative Particle beyond
Word limits is not, however, restricted to the Verbal
Phrase: it may also be exemplified from the Nominal
Phrase (cf. also p. 103); e.g.

\[\text{shes phal-cher [cig] nga-[rang-]'tsho sgang-ka log vis ge ma shes-pa (ma jimbe) sha-stag byas,}\]

'Supposing, you know, that it is just that we do not all
know how to read and write,'

Neg. Part. (ma); Vb. (shes), Nomzg. Part. (pa),


'This, then --- through not taking into account the
ultimate welfare of the people there --- this is how it
is.'

Neg. Part. (ma); Vb. (tog), Nomzg. Part. (pa),
Nom. Part. (-g).

de'\(\text{i}\) [var cig] nga-rang-'tsho cig-por ma v\(\text{in-pas}\) (ma
jimbe:) ---.

'Through our not being alone up here ---.'

Neg. Part. (ma); Vb. (yin), Nomzg. Part. (pa), Nom.
Part. (-g).

These last two examples also serve to exemplify
another type of colligation in addition to that of Verbal
Particle and Verb: Verbal Particle and Nominal Particle.
The Negative Particle ma/mi is the sole member of a Verbal-Particle sub-system that colligates with Nominal and the Nominalizing Particle within the Phrase (but not within the Word, 21141).

21122. Order of Categories

211221. Within Clause and Sentence

Except for the types of Sentence mentioned above (pp. 117–20), the Verbal-Particle category shares with the Verb a claim to the ultimate place in the order of categories in the Word: the Verb is the ultimate category where the Verbal-Particle is either not exemplified in the Verbal Phrase at all, or exemplified only by a member of the pre-Verb sub-system of Verbal Particle (Negative: ma/mi; Dubitative: a (21142); otherwise the Verbal-Particle is the ultimate category, and thus post-Verb, post-Noun, post-Adjective, etc. e.g. kho-rang-'tsho rdo-rje gling-la bsdad-kyi-yod-pa-vin-pa-no (de:gojo: jimben). "Do they live in Darjeeling, do you think?"

Vb. (bsdad), Vbl. Part. (kyi, yod, pa, vin, pa, no).

nga-rang-'tshos zhe-po ma shes-na'i (jī:ne), [vin-na'i (jī:ne)
pha-gas cig] phran-bu'i gang shes-pa 'di[-rgyas 'di]
phar --- da cig dge-ba'i bya-ba ra-po sha-stag vin-tsang (jinzā:),
'Even though we do not know much, --- even so, what little we do know of that, further --- now since it is simply an act of merit,'

Vbl. Part. (Clause-final): na'i, na'i, tsang.
de-nas da-rin kha-sa[ng] shes phyag-las 'di ma-[gshi]
gzhan-pa gas yog-ma-red dang (jo:mari tå).

'Then has he not in fact any other work these days, do you know?'

Vbl.-Part.: [pa], ma, red, dang.¹

As has already been shown (21121), the Verbal-Particle category is not restricted to the ultimate place in Clause and Sentence; for there is a sub-category of Verbal Particle that precedes the Verb (the pre-Verb sub-category, comprising the Negative Particle, ma/mi, and the Dubitative, a, and is therefore either ante-penultimate or penultimate according as the post-Verb sub-category is, or is not, exemplified; e.g.

i. penultimate mang-po a-yong (ajû).

'There would not be many, I suppose.'

la mi-'dug (mindu:).'No, there would not be.'

¹ The phonetic spelling yog, for yog-pa, disguises the fact that three members of the Particle category are exemplified in yog-ma-red.
Then, since he has not come, I myself am very sort-of sorry.'

Now, is not Kalimpong a hot spot too these days?

The last three examples are examples not only of the Verbal Particle in general but also of the Negative Particle in particular. This sub-category of Verbal Particle is not confined to the Verbal Phrase, but may also be exemplified from the Nominal (Nominalized Verbal Phrase). In such cases no particular place in the order of grammatical categories within the Clause and Sentence may be associated with it; all that may be said is that it immediately precedes the Verb. Examples of the Negative Particle have been given from the Nominal Phrase at p. 129 above, and are not repeated here.

Within the Word

Within the Word the Verbal Particle category is
colligable only with the Verb; and the order of these
two categories within the Word has already been included
in the criteria of the Verb (211142). The effect of
this criterion is to identify as members of the Verbal
sub-category of Particle all Constituents of the Verb +
Particle Word except the first, provided (a), that the
Phrase in question is a Verbal Phrase (cf. 21113); and
(b), that the Word in question is not one of those in
which the pre-Verb sub-category of Particle (pp. 123-4,
a, mi) is exemplified; e.g.

sku-zhog ga-dus chibs-bsgyur gmang-nga-yin-na (nanëjì:na).
'When did you come?'
Vb. (gmang), Part. (nga, vin, na).
gyon-chas bsdog-shig (do:jì).
'You pack my clothes!'
Vb. (bsdog), Part. (shig).
lags vod. deng-sang bzhugs-gdan 'jags 'jags-pa-yin
(dzá:gejì).
'Yes, she is; at present she is staying at home.'
Vb. ('jags), Part. (pa, vin).

Where, on the other hand, the initial place in the
Word is occupied by the Verbal-Particle category (pre-Verb
sub-category) then all Constituents except the second are
thereby identified as members of the Verbal-Particle
category; e.g.

chang 'di yag-po a-yin-na (?Ajì:na).

'I doubt whether this beer is all right.'

Vbl. Part.: a, na.
tsan-gni mi-'dug (mindu:).

'There is none at all.'

Vbl. Part.: mi.

'don-na'i lugs-srol mi-yong (mej5:).

'It is not customary to mine for them.' (Bell).

Vbl. Part.: mi.

There are in addition the Particle Words, already considered (211127), in which the Verb is not exemplified. The following Particles have been noted in this type of Particle Word: ma/mi, red, 'dug, vod, vin, byung, song, myong/myung, yong, min/man, med/mad, 'dra; e.g.

(i. first utterance; ii. reply or agreement)

i. rdo-rje gling-la sles-byung-ngas (le:djunę:).

'Did you get to Darjeeling?'

Vb. (sleb); Part. (byung, ngas).

ii. lags byung (tʃhū:). 'Yes, I did'. Part. (byung).

i. phebs-lam-la sku-thang mmyel-po byung-song-ngas (tʃhū:songę:).

'Did she get tired on the journey?'

Vb. (byung). Part. (song, ngas).
ii. lags ma-song (mas5). 'No, she did not.'
Part. (ma, song).

i. sang-nyin yong-gi-vin-pa-'dra (jungyjimbedra).
'He may come tomorrow'.
Vb. (yong); Part. (gi, vin, pa, 'dra).

ii. lags, 'dra (dra). 'Yes, he may.' Part. ('dra).

21123. **Tonal Classification**

With very few exceptions the members of the Verbal-Particle category cannot be given a tonal classification; for they are not restricted to Words of one Tone or the other, but may be included in either. Nor is there any need to classify the exceptions (the Non-Sentence-final-Clause Particle 'da'i and the Interrogative Particle dang), which are confined to monosyllabic Particle Words; for the pitch behaviour of these Particle Syllables can be accounted for through Clause Intonation ('da'i: 2121211111, 21212111212, 2121211122;
dang: 21212112112; 21212112121, 5a; 21212112122;
212121121222). In this respect the Verbal-Particle differs from the Verb, the Noun, and the Adjective categories, but not from the Postposition category and the various other sub-categories of Particle (Nominalizing, Nominal, Adjectival, Clausal, 0522). The following examples illustrate the impossibility of
classifying the Verbal Particle tonally:

\[
\begin{align*}
\text{jö:pæjinzä}, & \quad \text{gyæ-na-yin-tsang}, & \quad 1\text{W}: & \quad \text{pa}, \text{vin}, \\
\text{mæ:bejinzä}, & \quad \text{med-na-yin-tsang}, & \quad 2\text{W}: & \quad \text{tsang}, \\
\text{nä:ja}, & \quad \text{snang-shag}, & \quad 1\text{W}: & \quad \text{shag/bzhag} \\
\text{driyja}, & \quad \text{bserigs-bzhag}, & \quad 2\text{W}: & \quad \text{shag/bzhag} \\
\text{tængijimba'dra}, & \quad \text{bstan-gyi-vin-pa'-dra}, & \quad 1\text{W}: & \quad \text{gyi}, \text{vin} \\
\text{jungijimba'dra}, & \quad \text{vong-gi-vin-pa'-dra}, & \quad 2\text{W}: & \quad \text{pa}, \text{idra} \\
\end{align*}
\]

2113. Both Verb and Verbal Particle.

There are also criteria, though of limited application, that serve to distinguish certain Verb + Particle Words from certain combinations of Noun Word and either Verb, or Verb + Particle, Word. These criteria are applicable when, in the Verb + Particle Word the Particle category is exemplified by \text{pa} (Past-Tense Particle) and by either \text{red} or \text{vin}, and possibly by other members of this category, e.g. \text{bros-pa-vin (-pa-no)}, 'he ran away', ('did he run away?'), while, in the combination of Noun Word and Verb, or Verb + Particle, Word, the Noun is disyllabic, with \text{pa} as its second Syllable, e.g. \text{khang-pa}, \text{bod-pa}, 'house', 'Tibetan', and the Verb in the Verb, or Verb + Particle, Word is exemplified by either \text{red}, 'is', 'are', or \text{vin}, 'am', 'are', (Complement sub-category)
with the Verbal-Particle category exemplified, if at all, by e.g. pa, pas, pa-no.

The criteria by which the single Word is distinguished from the combination of two Words are pitch features and duration features. In the single, and Verb + Particle, Word a fall in pitch may characterize the initial Syllable (the Verb Syllable) of the Word: Tone-one Word \[ \underline{-} \], Tone-two Word \[ \underline{-} \]; in the combination of the two Words, Noun, and Verb or Verb + Particle, on the other hand, the former (Noun) is not characterized by a fall in pitch, e.g. (Tone-One Word) \[ \underline{\underline{-}} \]; (Tone-Two Word) \[ \underline{\underline{-}} \], and the latter (Verb + Particle or Verb) is, e.g. \[ \underline{\underline{\underline{-}}} \], \[ \underline{\underline{-}} \].

Further, in the single Verb + Particle Word the duration of the Vowel of the Particles red or vin, where either is final in the Word, is short: re, ji; in the Verb + Particle Word in which the Verb is exemplified by red or vin, and there is no Particle, the duration of the Vowel may be long: re:, ji:.

Examples of these two sets of criteria are as follows:
--- | ---
khões: phö:be:re.
khong bros-pa-red.
'He ran away.'
Vb. (bros), Part. (pa, red).

khões: phö:be:re:.
khong bod-pa red.
'He is a Tibetan.'
N. (bod-pa); Vb. (red).

di khanbère.
di khang-pa-red.
'It (got) filled.'
Vb. (khang), Part. (pa, red).

di khanbère:.
di khang-pa red.
'It is a house.'
N. (khang-pa); Vb. (red).

jëmë saibère.
nyi-ma shar-ba-red.
'The sun rose.'
Vb. (shar), Part. (ba, red).

khorä: sa:be re:.
 kho-rang shar-pa red.
'He is an easterner/a Sherpa.'
N. (shar-pa); Vb. (red).

The pitch and duration features that serve to distinguish a combination of Noun Word and Verb (+ Particle) Word such as that just described from the particular type of Verb + Particle Word contrasted with it in the previous paragraph discharge the same function for another combination of grammatical types of Word: Adjective + Particle in which the Particle category is
exemplified by the (rare) member pa, e.g. gsar-pa, 'new', gcig-pa, 'same', and the same type of Verb, or Verb + Particle, Word as before; e.g.

\[
\begin{align*}
sa:be
tjigbe
\end{align*}
\]

gsar-pa red. gcig-pa red-pas.

'It is new.' 'Is it the same?'

2114. Nominalizing Particle (Nomzg. Part.).

The criteria of this category are stated under the two headings colligation (21141) and order of categories (21142).

21141. Colligation

i. Verb

The Nominalizing-Particle category is colligated within Word limits with the Verb, a characteristic that it shares only with the Verbal, the Nominal, and the Ciausal, Particle. This characteristic thus serves to distinguish it from the Noun, the Postposition, the Adjective, and the Adjective Particle; e.g.

\[
\begin{align*}
gna-'tshos
gsung-dus
\end{align*}
\]

'sund:)' rang-nas,

'When we talk together,'

Nomzg. Part. (dus).

\[
gzhu:-mag
deni
}\]

\[
gnang-gi-yin-pa-'dra.
\]
'Then, in the end, he may perhaps produce a language manual there.'

Vb. (bzo); Nomzg. Part. (ba).

lhas-sa nang-bzhin [bshad-lugs] gsungs thub-yag (thu:ja:)
--- [Interruption].

'For the purpose of being able to speak a type of speech like the Lhasa ---' [Interruption].

Vb. (thub); Nomzg. Part. (yag).

ii. Nominal Particle

The Nominalizing Particle is colligable within Word limits with the Nominal Particle, in which respect it differs from the Verbal Particle (but not from any other category, of which, including the Verb (21113), is similarly colligible with the Nominal Particle); e.g.


'What a shortage of this sugar too there is here in Kalimpong these days!'

Vb.: skom; Nomzg. Part.: sa; Nom. Part.: -'i.
da-ga nang-bzhin gzhan-pa'i lugs-srol kho-rang byas-pa'i (tʃhe:be:) dbang-ri,

'In precisely this way, thanks to his adopting someone else's customs'

Vb.: (byas); Nomzg. Part. (pa); Nom. Part. (-'i).
bod-chas gon-pa-la (kham-ba-la) bod-skad rgyab [ma] shes-[na],

'If, in spite of wearing Tibetan things, he could not speak Tibetan,'
Vb. (gon); Nomzg. Part. (pa), Nom. Part. (la).

21142. **Order of Categories**

Since the Nominalizing Particle is restricted to the Nominal Phrase, it is debarred from occupying the ultimate place in the order of categories within the Clause except in the circumstances stated at pp. 118-19; but such a characteristic is too indefinite to serve as a criterion. It is the order of categories within the Word that needs to be stated.

Within the Word the Nominalizing Particle is post-Verb, and therefore occupies the second place in the order of categories. Except in Words in which the Nominal Particle is also represented, this second place is also the final place; e.g.

nga-rang-'tsho'i [cig] dus-rgyun pha-gas [phar-tshur] bka'-mol zhu-dus (ṣudy:) sgang-ni,

'Always, when we chatter away together in it,' [Tibetan] Vb. (zhu); Nomzg. Part. (dus).

de-ni yig-se'i skor-la [\'di-rgyas \'di] bka'-mol [\'dus-se] zhu-rgyu (ṣuṣu) yod-se,
"Then you must say this much like this on the subject of the writing;"

Vb. (zhu); Nomzg. Part. (rayu).

[phal-cher] tsha-ra (tshara) 'pro'i-yod-pa-no. 'I suppose he is on the point of finishing it.'

Vb. (tsha [sic; tshar]); Nomzg. Part. (ra).

In Words in which the Nominal Particle is exemplified, or the Clausal Particle, or both, the Nominalizing Particle is pre-Nominal-Particle, and therefore still occupies the second place in the order of categories within the Word, though this second place is no longer the final; e.g.

red zer-[ba-la]-ni (sebaleni), 'di'i skor-la skad-cha

dris-ni, vag-go [red/sung]-nyan-[tsko] (sû:penzu)

tsang-ni mi-'dug.

'On his saying "yes", there would be none at all that would say "this is good", after they had asked about it.'

Vb. (zer); Nomzg. Part. (ba); Nom. Part. (la); Cl. Part. (ni).

Vb. (zsung); Nomzg. Part. (nyan); Nom. Part. (tsko).

de-bag-la[yang cig phal-cher] vig-ge shes-nyan-ni (ôf:pE:n),

'As for people in this district too that generally know the script,'

Vb. (shes); Nomzg. Part. (nyan); Cl. Part. (ni).
The total number of members of the Nominalizing Particle category to be noted is the following fourteen: dus, (b)stang, ve/yag, nyan, rgyu, ba/pa/nga/ga/ra, sa, rog, rtsis, de, dwogs, mus, long, thabs.

212. Phonological Analysis

The first phonological features of the Vb. + Part. Word, the Vb. Word, the Part. Word, and the Vb. + Nomzg. Part. (+ Nom. Part.) Word to be considered are the prosodic features, i.e. features characterizing units comprising more than one phonematic unit (Piece, Word, Clause, etc.). The various prosodic systems are stated at 2121; the phonematic systems are stated subsequently, at 2122.

Since its aim is to give a phonological account of the Grammatical Constituents of Words, this thesis is not directly concerned with the prosodic systems statable for such larger units as Clause, Sentence, and Utterance; and the systems stated here relate only to the Word unit and to the Piece, though it is necessary from time to time to make some reference to systems statable for units larger than these; e.g. the Tempo system, which relates to the whole Utterance, and the Intonation systems, which relate to the Clause.
2121. **Prosodic Systems**

The stating of the prosodic systems is carried out under three heads, the first of which is in fact one of those systems just referred to as statable for units larger than Word and Piece: 21211, Utterance Prosodies: Tempo. The other two heads are: 21212, Word Prosodies, which deals with systems statable for the Word, and 21213, Piece Prosodies, which deals with systems statable for Pieces, generally of two Syllables but also of single Syllables.

21211. **Utterance Prosodies: Tempo**

The pronunciation of given lexical items may vary according as the rate of utterance is fast or slow; and, since the thesis aims to cover all LT utterances, of whatever rate of utterance, it is essential to illustrate those phonetic differences which are ascribable to differences in tempo, even though the Tempo system is not stated as such. The following are examples of the sort of phonetic difference that the Tempo system is designed to deal with:
These and other differences in the pronunciation of identical lexical items are ascribed to differences in the Tempo of the Utterance in which the Word is included; and a two-term Tempo system is set up for the Utterance unit: Fast Tempo (ft); Slow Tempo (st). Though set up for the Utterance, the Tempo prosodic system is exemplified here not from Utterances but from Words.

The features given below are restricted to ft Utterances, and therefore afford grounds for the identification of an Utterance as ft; the features given in brackets for comparison, on the other hand, are common to both ft and st Utterances, and therefore are not criteria:

i. friction: \( \frac{\beta \gamma \delta \varepsilon \zeta}{\xi} \) (cf. plosion, affrication \( \frac{b g d z d z t s h}{m} \));

ii. nasality:

(\( cf. \) plosion: \( \frac{b}{b} \));

iii. syllabic consonant:

(\( cf. \) vowel and non-syllabic consonant: \( \frac{gi \chi \nu \epsilon \gamma \nu \epsilon}{\eta} \));

iv. whisper:

(\( cf. \) non-whisper: \( \frac{ne}{ne} \));
v. nasal vowel, and dental nasal:
   (cf. nasal vowel: \( \sim \):n)

vi. (aperture between close and half-close, with some centrality):
   (cf. half-openness: \( \sim \):); u i

vii. (half-closeness + centrality):
   (cf. openness: \( \varepsilon \); e)

viii. nasality without oral occlusion:
   (cf. nasality with oral occlusion: \( \eta \); η)

ix. homorganic articulation:
   (cf. non-homorganic articulation: \( \eta d \); ηd)

x. nasal vowel, and consonant:
   (cf. nasal consonant, and consonant: \( \sim z \); nz)

E.g.

i. tʃhiːjɨjɵ:pə, byed-kyi-vod-pa, '(what) are you doing';
   cf. jɨgiːrə:pə, bzhes-kyi-vod-pa, '(what) shall you eat';
   jɨ:jɵ, zhus-byas, 'having asked for'; cf. ceːdʒɵ,
   skyes-byas, 'having originated';
   ma shɑː:jî, ma tshang-bzhin, 'not having been completed';
   cf. tʃhoːɡimare, tshos-kyi-ma-red, 'they will not assemble';

ii. jimmədra; cf. jimbədra, vin-pa-'dra, 'it may be';
    khəmə, khebs-na, 'if it should spread'; cf. jɨbne,
    rgyab-na, 'if he shuts';
iii. sìgdu:, siğdu:; cf. sigidu:, zer-gyi-'dug, 'they say';
   tṣhe:ŋ; cf. tṣhe:ne, byas-nas, 'after doing';
   (ma)gyur-ra, ḏuː; cf. ḏuː, 'changing';
iv. dugana; cf. dugana, 'dug-ga-na, 'there are, are there not';
   chingidu; chingidu:, mkhyen-gyi-'dug, 'he knows'.
v. fīn tā: shes dang, 'I must tell you'; cf. nā: tā:,
   gmang dang, 'give me'.
vi. nā:sū, (chiba-bgyur) gmang-song, 'he went'; cf.
   fīs5, shi-song, '(four cats) have died' (G. and R.);
   fe:gure:s, bshad-go-red-se, "you must explain";
   cf. nangore, (phyag-las) gmang-[dgo-red], 'he has to work';
   le:nī, sleb-nī, 'when I reached here)'; cf. phe:ne,
   phebs-nī, 'since you came'.
   cf. also ft th5:menū, mthong-ma-nyung, 'I had never
   seen', and st map5: ma-myong, 'never'.
vii. th5:menū, mthong-ma-nyung, 'I had never seen'; cf.
   map5: ma-myong, 'never';
   thu:medʒū, thug-ma-byung, 'I did not meet (him)'
   (G. and R.);
   cf. khu:medʒū, khugs-ma-byung, 'I did not sleep (well)'
   (G. and R.).

1ni, a phonetic spelling (cf. nas), is sometimes written by
p. even when the pronunciation of the recorded example would
have been better symbolized, even as a phonetic spelling,
by nas, i.e. when the pronunciation ne is used.
bcar thub-ma-song (thu:mesũ), 'I was unable to come and see (you)';
cf. zhal-dkar do ma stogs, bzhes-ma-song (je:masũ), 'You have drunk only two cups' (G. and R).

viii. j5:ũ; cf. jone, yong-ba, 'the coming'.
ix. sundy:; cf. suddy:; gaung-dus, 'when (we) say'.
x. lo:pä:zu, klog-nyan[-'tsho], 'people that can read';
cf. phyag-las emang-nyan-'tsho (nã:nenzu), 'people that work'.

In addition to the specifically ft forms given above there are a number of Vb. + Part. Words that include either the Particle ba/pa/ga/nga/ra or the Particle bas/pas/gas/ngas/vas as the first Particle Constituent of the Word; and for these a specifically ft form is paralleled by a common form (c.), appropriate to both ft and st Utterances, and in some cases by a further form appropriate to st Utterances only. For Words of this type the exponents are the following sequences of features:

1. ft: (velarity + nasality), open centrality: نى;¹
   c.: (velarity + nasality), labiality + plosion), medium centrality: ىبة;

¹In the remainder of this section open centrality (ء) is distinguished from medium (أ); and ى, ى, and ى are distinguished respectively from ى, ى, and ى, all having their I.P.A. values.
e.g.

ft  jsonStringCanbere  thongbare  thongbare;  
c.  jsonStringCanbere  thongbare  thongbare  thongbare

rnyang-pa-red  mchung-pa-red  'thung-pa-red
'he spread' 'he stretched' 'he saw'  'he drank'

ii.  ft:  short  duration, (alveolarity + friction), open centrality:

   c. long duration, (labiality + plosion), medium centrality:

   e.g.

   ft  jsonStringCanbere  phyngbare;  
c.  jsonStringCanbere  phyngbare

rgyal-balag  bskol-balag  phul-balag
'he won'  'he boiled'  'he offered'

iii.  ft:  (short  duration  +  the following  vowel qualities:  a  a  o/a), (alveolarity + friction, open centrality)

   c. long duration + the following vowel qualities:  i  e  a  o  u),

   labiality + plosion), medium centrality

   e.g.

   ft  phyngbare  tegrere  tjargere  dngnere  korgere;  
c.  phyngbare  tegrere  tjasbere  dngnere  korgere

phur-balag  ster-ba-red  bcar-balag  'byor-balag  bskur-balag
'it flew'  'he gave'  'he visited'  'it arrived'  'he sent'
Of the above alternative forms the one specified as ft is restricted to ft Utterances; the other (c.) is common to both ft and st. In the following examples, on the other hand, it is necessary to distinguish forms appropriate to: (i), ft only; (ii), st only; (iii), either (c.). The exponents of these three are the following sequences of features.

i. (long duration + the following vowel qualities: i a o u), (velarity +
plosion), open centrality

ii. (short duration + the following vowel qualities: i a o o), (velarity +
occlusion), (labiality + plosion),
close centrality

iii. (long duration + the following vowel qualities: i a o u), (labiality +
plosion), close centrality

\[\text{i:ge a:ge o:ge u:ge; u:be; a:be o:be u:be;}\]

1R. also volunteered an example, the only one of its kind, of -\(\text{eg}\)-; re\(\text{gbe}\)re, re\(\text{gpa}\)-\(\text{re}\)-\(\text{ed}\), 'he touched'; but, for the following reasons, it is doubtful whether this should be accepted as LT: (i), it has not the usual corresponding ft and c. forms *re\(\text{geber}\)re, and *re\(\text{bere}\); (ii), Literary-Tibetan Verbs in -\(\text{eg}(s)\) not infrequently correspond to LT Verbs in -\(\text{ag}\); and re\(\text{ge}\)s probably corresponds to the ra\(\text{g}\) of e.g. ra\(\text{gbyung}\)-\(\text{ngas}\), ra\(\text{d}\)\(\text{d}\)\(\text{ge}\)\(\text{e}\)\(\text{e}\), 'did you obtain', (G. and R.).
e.g.

<table>
<thead>
<tr>
<th>ft</th>
<th>si:gere</th>
<th>sa:gere</th>
<th>lo:gere</th>
<th>su:gere</th>
</tr>
</thead>
<tbody>
<tr>
<td>st</td>
<td>sœgbere</td>
<td>sœgbere</td>
<td>sœgbere</td>
<td>sœgbere</td>
</tr>
<tr>
<td>c.</td>
<td>si:bere</td>
<td>sa:bere</td>
<td>lo:bere</td>
<td>su:bere</td>
</tr>
</tbody>
</table>

'gzigs-pa-red' 'bzhag-pa-red' 'klog-pa-red' 'bzhugs-pa-red'

'he saw' 'he put' 'he read' 'he lived'

ft and common forms have to be stated for certain other Vb. + Part. Words and Vb. Words that include Particles other than those (pa/ba/ра/нга/ra, pas/gas/ngas/ras) exemplified above. The Words in question are all w-Piece (212132112); and the exponents are features and sequences of features drawn from the Verb Syllable:

ft: (long vowel duration +
   i. closeness): u:
   ii. half-closeness): o:;

C (short vowel duration + either (i), aperture between close and half-close, with some centrality (o), or (ii), half-openness (u)), and stop or friction.

e.g.

<table>
<thead>
<tr>
<th>ft</th>
<th>'ja' gcig zub-song (su:s5)</th>
<th>'a rainbow was visible'</th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>&quot; &quot; &quot; (sœbs5)</td>
<td>(Bell, altered);</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ft</th>
<th>shing gsob-kyi-'dug (so:gydu:)</th>
<th>'the wood is rotting';</th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>&quot; &quot; &quot; (sœbggydu:)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ft</th>
<th>sha btub-kyi-'dug (tu:gydu:)</th>
<th>'he is slicing meat'.</th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>&quot; &quot; &quot; (tœbggydu:)</td>
<td></td>
</tr>
</tbody>
</table>
The long-vowel qualities \( u \) and \( o \) have thus to be associated with the short-vowel qualities \( o \) and \( o \) respectively.

The following feature is restricted, in Intraverbal Junction, to Slow-Tempo (st) Utterances, and is therefore a st criterion, while the feature given in brackets for comparison is common to both st and ft Utterances:

voicelessness: \( kb \ e:t \, nt; \)

(cf. voice: \( gb\, e:d\, nd); \)

e.g.

ma tokbe: ma tog[-pas] 'not counting'; cf. driqbe,
bsgrigs-pa, 'setting up'. \( s\, t\, ã:\), shod-bstang, 'manner of speech'; cf. \( s\, ð\, d\, ã:\), bshad-bstang, 'manner of speech'.
manštangt, gman-bstang[-gi], 'of (our) manner of making';

cf. mändäi, [gman-bstang], 'manner of making'.

21212. Word Prosodies: Tone

The only prosodic system to be stated for Word units is the Tone system. This system is most satisfactorily stated for the Word as a whole, and not for the individual Syllables of which the Word is composed, because the pitch behaviour of the component Syllables is interdependent, and the pitch of each cannot conveniently be stated in isolation from the pitch.
of the others. Any of the grammatical types of Word that are being treated in section 21 (p. 96), with the exception of Particle Words (211121 - 7), may be classified by reference to a two-term Tone system, as being either a Tone-One Word (1W) or a Tone-Two Word (2W). The criteria for this analysis of Words into 1W and 2W are: (212121), pitch features; (212122), certain Word-initial features (voice + plosion, voicelessness + non-aspiration + plosion, etc.) that correlate with the regular differences in pitch behaviour stated under the former criterion. By appeal to one or other criterion, or to both criteria at once, it is generally possible to identify any Word in an utterance as either 1W or 2W; though, in certain circumstances, a Word may provide no criteria of either type, and may therefore be, as far as that particular context is concerned, tonally unidentifiable.

212121. Pitch Features

This thesis is not directly concerned with the prosodic features of Clause units, and therefore with Intonation systems; but, in practice, it proves impossible to state the pitch exponents of Tone-One and Tone-Two Words without also referring to Clause Intonation: a given Tone-One or Tone-Two Word may have not merely a single possible pitch pattern but two or
more; and the various possible patterns are best considered in relation to, and, in fact, as exponents of, Clause Intonation. This difficulty of statement applies especially to the component Word types of the Verbal Phrase (Vb. + Vbl. Part., Vb., Part.); for, as the final Phrase of the Clause, the Verbal Phrase is particularly concerned with Clause Intonation, and is especially characterized by the phonetic exponents of the various terms of the Intonation systems. While it is true that the Emphatic-Non-Emphatic Intonation System does indeed apply to the Vb. + Nomzg. Part. (+ Nom. Part.) Word, this type of Word is confined to the Nominal Phrase, and therefore, apart from certain stated exceptions, not final in the Clause; it is therefore considered separately from Verbal-Phrase Words, at 2121215.

In the case of the types of Word comprised in the Verbal Phrase (Vb. + Part., Vb., Part.) there are good grounds, both phonological and grammatical, for distinguishing non-Sentence-final from Sentence-final Clauses: the grammatical grounds are that there is a sub-category of Verbal Particle that is confined to the non-Sentence-final Clause (and is therefore termed the Non-Sentence-final-Clause sub-category); the phonological
grounds are that Intonational differences make it difficult to combine the pitch exponents of 1W and 2W in the non-Sentence-final and in the Sentence-final Clause in a single statement. The exponents of the two terms of the Tone system are therefore stated separately, firstly (at 2121211) for the Non-Sentence-final, and, secondly (at 2121212), for the Sentence-final Clause.

2121211. Non-Sentence-final Clause

In the Non-Sentence-final Clause the Verbal Phrase may contain Words of all three types, Vb. + Part., Vb., and Part.; and it would be possible to account for the pitch behaviour of each type of Word in turn; but it is more economical to deal with all three types up to a point simultaneously. These economies in statement arise out of the fact that the Particle Word is invariably associated within the Verbal Phrase with a Word of one or other of the other two types. Thus, when the Particle Word is associated with a (preceding) Verb + Particle Word, its pitch behaviour can most conveniently be dealt with at the same time as Tonal exponents are stated for Tone-1 and Tone-2 Verb + Particle Words; similar advantages are to be gained from a combined statement for Verbal Phrases in which the Particle Word is associated with the Verb Word.

The most economical order of statement is to treat
together (in 2121211) Verbal Phrases that include (i), Vb. + Part. Word; (ii), Vb. + Part. Word and Part. Word, provided that the Particle of the Particle Word is a member of the Non-Sentence-final-Clause sub-category of Particle (only de'i; the Negative Particle ma is not confined to the Non-Sentence-final Clause); (iii), Vb. Word and Part. Word, with the same proviso as under (ii); (iv), Vb. Word, provided that it is Clause-final. Other Verb Words, i.e. Verb Words that are followed within the Clause by another Verb Word, by a Verb + Particle Word, or by a Negative-Particle Word, whether contained in a Non-Sentence-final or in a Sentence-final Clause, are dealt with not in this section but in section 2121213; for in their case the Tonal exponents can be given an identical form of statement regardless of whether the Verb Word is contained in a Non-Sentence-final or a Sentence-final Clause; and a single statement suffices for both.

Separate statements are made for those Non-Sentence-final-Clause-Particle Words which are confined to the Non-Sentence-final Clause and those Verbal-Particle Words which may be contained in a Non-Sentence Clause but are not confined to it (the Negative-Particle ma), the former being dealt with in section 2121211 and
the latter in 2121214.

The Verbal-Particle sub-category set up for the Non-Sentence-final Clause comprises the following twelve members: na, 'if'; nas/ni, 'after'; byas, 'after', bzhin, 'after'; tsang, 'because'; de'i/te/ta'i/das/da'i, 'but'; dus, 'when'; ga/kag, 'in order to'; ze/se, 'that'; med/mad, min/man, and yeng/-i/-a, the last three of which occur only in Clauses in which they are preceded by na, e.g. yod-na-med, 'whether there are or not', yin-na-min, 'whether it is or not'; yin-na(s)-yang, yin-na'i, yin-nas, 'although it is'.

One of the ten Particle Syllables (de'i/te/ta'i/das/da'i) differs from the others in that its Junction relations with the preceding Syllables are Interverbal (11132); and de'i is therefore treated as a Particle Word. As such, it may not be classified tonally; but, even though no Tonal exponents may be stated for it, it is convenient to include it in section 21212. The (two) reasons for including it in this section are, as explained above: (i), that de'i may be associated with a (preceding) Verb + Particle, or Verb, Word the Tonal exponents of which are stated here; and (ii), that, even though Particle Words are not given a Tonal Classification, their pitch behaviour has to
nevertheless be described, and the most convenient place for this description may be, as here, when dealing with Clause Intonation.

The Word that immediately precedes the Particle Word *de'i* may be a Verb Word (though only of the Verb Complement sub-category), e.g. *'dug de'i*, *med de'i*, or a Verb + Particle Word (of any sub-category), e.g. *mthong-byung te*, *ro-ri-'dug te*. In the latter case the Particle category is exemplified by such of its members as *byung*, *gi*, *'dug*. These three, and other, Particles may be included in the Sentence-final Clause, and are therefore termed Sentence-final-Clause, or Sentence-final, Particles; but, as is clear from the above examples, they are not thereby excluded from the non-Sentence-final Clause. On the contrary, the following Sentence-final Particles may be included in Non-Sentence-final Clauses in which the Non-Sentence-final-Clause sub-category of Particle is also represented, by e.g. *tsang*, *na'i*, *vin*, *min*, *vod*, *med*, *kvi/cyi/qi*, *pa/ga/nca/ra*, *dgos/ro*, e.g. *gyor-pa-vin-tsang* (*pa*, *vin*), *springs-dgos-vod-na'i* (*dgos*, *vod*); these, and the following, may occur in a Clause that includes *de'i*: *yong*, *song*, *byung*, *shag/zhar*, *ma/ni*, *red*, *'dug*, *nyong/nyung*, *'dra*, *'cro/cro*, e.g. *co-nyung ta'i*, *bsam-byung*
da'i, smang-song 'dgs; and any Sentence-final Particle
may be included in a Non-Sentence-final Clause that
also includes the Non-Sentence-final Particle ze/se/zer,
and is thus an example of reported speech; i.e. any
of the preceding Particles, and in addition, ka
(Interrogative), shig, do, a (Imperative, a (Dubitative),
pas/gas/ngas, no, dang, (Imperative), dang (Interrogative),
na, pa/ga/nga (Interrogative), na/ga/nga (Declarative),
e.g. byed-go-red-se (ga, red), smang-ngas-red-zer, yod-
pas-[se](pas). The term Sentence-final-Particle is thus
used to cover a sub-category of Particle that differs
in distribution from the Non-Sentence-final, and is,
as it were, non-Non-Sentence-final; it cannot be taken
to imply that its members are restricted to the Sentence-
final Clause.

There are two Particles that do not lend themselves
to classification in terms of Sentence-final and Non-
Sentence-final: the Negative Particle ma/mi, which has
already been mentioned, and the Alternative-Interrogative
(pa/ga/na). The Alternative-Interrogative Sentence
generally contains two Clauses in each of which the
Alternative-Interrogative sub-category of Particle is
exemplified. The former of the two Clauses, the first alternative, is usually characterized by a Non-Sentence-final pitch pattern, and therefore, like any other Non-Sentence-final Clause, implies that there is a further Clause within the Sentence; but it differs from other Non-Sentence-final Clauses in that it implies that that further Clause also contains an example of the Alternative-Interrogative Particle. Since the Alternative-Interrogative Particle is not confined to the Non-Sentence-final Clause, it clearly cannot be classified as Non-Sentence-final; and yet the Alternative-Interrogative Sentence requires that this Particle be exemplified in the Non-Sentence-final Clause, whether or not it is also exemplified in the Sentence-final.

The Alternative-Interrogative Particle is therefore excluded from classification in terms of Sentence-final and Non-Sentence-final Clause; but it is, even so, convenient to give examples of the pitch behaviour of

1 Exceptionally, the Alternative-Interrogative Particle is not exemplified in the Sentence-final Clause; e.g. phyag-dpe 'di [nga-rang-'tsho'i] debs-kyi lugs-srol yin-na, yang [nga-'tsho'i] bod-pa'i phyag-dpe rang. "Is this book after the manner of our bound books (debs), or really one of our Tibetan unbound books (phyag-dpe)?"

2 For an exceptional pitch pattern, see p. 177.
Words that include it either, in the case of the first alternative, with the other examples of the Non-Sentence-final Clause (2121211), or, in the case of the second alternative, with the Sentence-final Clause (2121212).

The possible pitch patterns of the Particle Word de'ːi vary with the Intonation of the Clause; those of the Verb + Particle Word vary with the Intonation of the Clause, the Tone of the Word, and, to some extent, with the particular member of the Particle category. In order to account for these pitch patterns it becomes necessary to refer to Clause Intonation of a different type from that which has already been introduced (Sentence-final, Non-Sentence-final). For Non-Sentence-final Clauses a further two-term Intonation system is established: (21212111), Non-emic; (21212112), Emphatic.

The criteria of the two terms of this Intonational system are not restricted to the pitch behaviour of the Particle Word and the Verb + Particle Word alone, or even of the component Words of the Verbal Phrase: the system is set up in an attempt to account for inter-related variations in the pitch behaviour of all the Words in the Clause and Sentence; and, though attention in the examples in this section is focused
on the Verbal Particle Word and the Verb + Particle Word, the pitch behaviour of these types of Word is to be considered not in isolation, but in association with the pitch behaviour of all the other Words of the Clause and Sentence, and especially the Word or Words immediately preceding and following them.

The order in which the pitch behaviour of such of the Grammatical Constituents of Words as are members of the Verbal Phrase in Non-Sentence-final Clauses (but with the exception of certain Verb Words; p.156) is dealt with appears in the following figure:

```
Non-Emphatic-Intonation Clause

<table>
<thead>
<tr>
<th>Intonation 1</th>
<th>Intonation 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1W 2W</td>
<td>1W 2W</td>
</tr>
</tbody>
</table>

Emphatic-Intonation Clause

<table>
<thead>
<tr>
<th>Word Prominent</th>
<th>Word not Prominent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intonation 1</td>
<td>Intonation 2</td>
</tr>
<tr>
<td>1W 2W</td>
<td>1W 2W</td>
</tr>
<tr>
<td>Intonation 1</td>
<td>Intonation 2</td>
</tr>
<tr>
<td>1W 2W</td>
<td>1W 2W</td>
</tr>
</tbody>
</table>
```

21212111. Non-emphatic

In Non-Emphatic-Intonation Clauses the exp onency of
Tone-one and Tone-two Words includes:

1W: high pitch characterizing the Verb Syllable;
2W: low " " " " .

As far as the Non-Sentence-final Clause alone is concerned, these features might equally well have been stated as: 1W, Word-initial high pitch; 2W, Word-initial low pitch; but the former wording has been adopted here in order that the same form of statement may stand for both Sentence-final and non-Sentence-final Clause (cf. pp. 196-7).

Additional features of the pitch behaviour of the Word, as, for example, whether the high, or low, pitch of the Verb Syllable is level or falling, and what is the pitch behaviour of the Particle Syllables of the Word, if there are any such Syllables, do not serve as Tonal criteria; but that is not to say that they are of no importance. On the contrary, 'renewal of connection' with Tibetan utterances clearly requires more than the slender information provided by the Tonal criteria: the pitch behaviour of Particle Syllables must also be stated; and more detailed information must be given about the Verb-Syllable high and low pitches -- under what conditions they are
level, falling, etc.\textsuperscript{1} The need for this additional information is the reason for such headings in the preceding figure as Intonation 1, Intonation 2, Group-1 Particle, etc.

For Non-Emphatic-Intonation Clauses a further Intonation system, of two terms, is established, the two terms being named (Non-Emphatic) Intonation 1, (212121111), and (Non-Emphatic) Intonation 2 (212121112). The criteria by which the two terms of this system are distinguished are here associated solely with the final Word of the Clause, whether Verb + Particle Word, Verb Word, or Particle Word, and are particularly concerned with the final Syllable. This thesis is concerned with Clause Intonation only to the extent to which it provides a framework within which all differences in the pitch behaviour of the Grammatical Constituents of Words can be accounted for; but it may be said in passing that a Clause-final high, or

\textsuperscript{1}\textit{For renewal of connection, see W.S. Allen, 'Retroflexion in Sanskrit: Prosodic Technique and its Relevance to Comparative Statement', BSOAS (1954), XVI, 3, 556, n.6. Allen is here referring to a concept of J.R. Firth's, which originated in a discussion with A. Sinclair, author of \textit{The Conditions of Knowing} (London, 1951): that the validity of the categories established must be tested by renewal of connection with utterances in the language concerned.}
ranging, pitch is the criterion of Intonation 1, and a
Clause-final low level pitch of Intonation 2.

Intonation 1

In Non-Emphatic Intonation-1 Clauses the high
(1W), or low (2W), pitch characterizing the Verb
Syllable is (1), level where the pitch of the following
(Particle) Syllable is high, and (ii), falling where it
is low. These differences in the pitch behaviour of
the Words in which they are exemplified makes it
necessary to group the Non-Sentence-final-Clause
Particles as follows: (a), Group 1: na, 'if',
including na-yang, 'although' (with phonetic spellings
nas-yang, na'i, and nas), and na-ni, 'as for if';
dus, 'when'; tsang, 'because'; ca/kag, 'in order to';
del/te/ta/1/das, 'but'; (b), Group 2: nas/ni,
'after'; byas, 'after'; bzhin, 'after'. The Particle
zÅ/se has not been recorded in Clauses of this
Intonational type; nor have min and med.(see Intonation
2, 212121112).

a. Group-1 Particles (na, dus, tsang, etc.)

The pitch of the final Syllable of Clauses
containing one of these Particles is high (cf. the
rising pitch of the Group-2-Particle patterns, at
section b); and the pitch pattern of the final Word
(or, in the case of Clauses containing the Particle Word, de'i, of the final Words) is one of the following, depending on the number of Syllables:

Tone One: \[ \overline{--} \], \[ \overline{\--(-)} \]

" Two: \[ \overline{\--(-)} \], \[ \overline{\--(-)} \]

i. Two Pitch Marks

Tone One

thanda lo tshundy; da-lta lo chung-dus,

'Now, while you are still young,'

Tone Two

jaranzo: tšik phyji: di pha: pha: gyp tshimbu dindre: tshu:ne,

nga-rang-'tsho'i [cig] bod-yig de [phar bar-]khyabs chen-po

['di-'dras] byung-na,

'If there should come about as great an expansion of this Tibetan of ours as this,'

Three Pitch Marks Marks

Tone Two

\[ \overline{\^--} \]

me:, senani, med, zer-na-ni,

'As for if you say: "we have not",'
Three Pitch Marks

Tone One

\[ \underline{\text{thong-de thö-gi: de}}, \quad \underline{\text{mthong-ta mthong-byung te}}, \]
'I did indeed see him, but \underline{- - -}. (Bell).

Four Pitch Marks

Tone One

\[ \underline{\text{pam-pa: dindre: je: bajinza}}, \]
'[\text{nyama-myong 'di-dras-se gyog-pa-vin-tsang,}]'
'Since you have in this way covered yourself with experience,'

Tone Two

\[ \underline{\text{di-phige: tsji-yi be: tshes: tshims-besi me: bajinza}}, \]
'de-ni pha gas cig[-gi rbad] tshad dang 'dzin-pa[-ze] med-pa-vin-tsang,'
'Then, since there, certainly, we had no hope of preserving a proper balance, so to speak,'

For further Intonation-1 examples see App. III, 212121111.

The pitch patterns given here also apply to the first alternative of Alternative-Interrogative Sentences, the Particle being \text{pa/ga/na}; e.g.
Two Pitch Marks

Tone One

\[ \text{cherā:} \ \text{lē:sa: phe:ba:,} \ \text{janze: phe:ba:.} \]

khyed-rang lhas-sar phebs-pa, rgyal-rtsar phebs-pa.

'Did you come to Lhasa, or did you come to Gyantse?'

For the pitch behaviour of the latter alternative see 2121212111, b.

Tone Two

\[ \text{tshabi di} \ \text{janze:} \ \text{debsi lōysé:} \ \text{ji:na:,} \ \text{ja:} \ \text{janze:} \]

\[ \text{phobs:} \ \text{tshabi rā:} \]

phyag-dpe 'di [nga-rang-'tsho'i] 'debs-kyi lugs-srol
yin-na'i, yang nga-rang-'tsho'i bod-pa'i [phyag-dpe rang].

'Is this book after the manner of our bound books, or really one of our Tibetan unbound books?'

\[ \text{thu kule:} \ \text{khagu duga,} \ \text{jā:} \ \text{lē:} \ \text{ja:} \ \text{nāngiduga.} \]

thugs sku-las khag-po 'dug-ga, yang las lha-[ba manang-gi-'dug-ga].

'Would it be difficult, or do you do it more easily?'

The pattern given here is not, however, the only possible pattern for the first of the alternatives: see also
Intonation Two, 212121112, ii.

Four Pitch Marks

Tone One, 

le:sa: phe:beriba:, janzc: phe:beriba:. 

lhas-sar phebs-pa-red-pa, rgyal-rtser phebs-pa-red-pa.

'Did you come to Lhasa, or did you come to Gyantse?'

Tone Two 


de'i sngas-la var lhas-sa rang-la bzhugs bzhugs-pa-vin-na, [Interruption]

'Before this, were you living up in Lhasa itself, or -- --' [Interruption].

b. Group-2 Particles (nas/ni, byas, bzhin)

Tone One: 

" Two: 

In these examples of disyllabic Words it will be seen that the Verb Syllable is characterized by a fall in pitch, and the Particle Syllable by a rise (cf. the level pitch of the Group-One-Particle disyllabic examples in section a, i: 
1W, __ ; 2W, __ ; whence the need for two categories of Particle):

Tone One

tha tharè: ja: le:ni, da da-ran var sler-bni,

'Now, having on this occasion reached there,'

dinè: ndi khā: tsha:ni, de-nas 'da:i khang tshar-ni,

'Then, when this has been filled right up,'

di ju:gule ja: pha: lu:ni,

de bzhugs-su-la var phar blug-s-ni,

'Having tipped this away into the back,'

Tone Two

he:tt, byas-bzhin, 'In that case,'

The pitch patterns given in section (a) (1W, __ ; 2W, __ ) may be used to distinguish the forms na-yang/nas-yang/na'i/nas, 'although', from nas/ni, 'after', which may otherwise be homophonous (ne:).

Where the pitch pattern is that appropriate to Words that include one or other of the Group-1 Particles
(section a), \( ne \): must be identified as \( na'i/nas \), 'although', 'even if', which alternates with \( ne+ja: \), \( na(s)-yang \), e.g. \( jë:-ne: \), shes-ni, 'as you know'; \( jë:-ne: \), win-na'i, 'however'; \( tha:-ne: \), dar-nas, 'though it should spread'; and where the pattern is the one given above as appropriate to Words exemplifying Group-2 Particles, then \( ne \): must be identified as \( nas/ni \), 'after'; e.g. \( tshë:-ne: \), phyin-ni, 'after going'.

It is convenient to include in this section, with the \( Vb. + Part. \) Words in which the Particle is a Group-2 Particle, those Verb Words, which, like the Particle Syllable, are characterized by a rise in pitch \( \overline{1} \). Such examples are restricted to the first alternative of Alternative-Interrogative Sentences. The Verb in examples of this type can only be a member of the Verb-Complement sub-category of Verb, all the members of which are confined to the Tone-Two Word; and it is therefore not possible to cite Tone-One words for comparison.

\( \overline{1} ni \) is incorrect here, and should be \( na'i, nas, \) or \( na(s)-yang \).
Tone Two

\[
\text{nu:gu di kjerangi re:, pe: re:}
\]

\[\text{smyu-su 'di khyed-rang-gi red, nga'i red.}\]

'Is this pen yours, or is it mine?'

This rising-pitch pattern applies only to the first of the alternatives; for the pitch behaviour of the second see 2131212111, a, i.

212121112. **Intonation 2**

In Intonation-2 Clauses the Word-initial high and low pitches that serve as criteria of 1W and 2W respectively are also falling. The possible pitch patterns are:

Tone One:  

\[\text{i. } \frac{\text{- (--)}}{};\]

\[\text{ii. } \frac{\text{- (--)}}{};\]

Tone Two:  

\[\text{i. } \frac{\text{- (--)}}{};\]

\[\text{ii. } \frac{\text{- (--)}}{};\]

i. The pattern \(\text{-}\) is appropriate to Words in which the Verb category is alone exemplified; these Words are necessarily monosyllabic. It is not possible to cite a Tone-one example to match the Tone-two; for the Verb category can be represented only by byas, which is a Tone-two-Word Verb; e.g.
'Having said that one should energetically study one's own country's language energetically.'

(Section ii is also exemplified here, by tšhegoreš.)

ii. The patterns in this section are appropriate to polysyllabic Words as follows, with no need to distinguish Group-1 and Group-2 Particles:

Two Pitch Marks

Tone One

dine: pime tšiŋni: sōne,
de-nas nyin-ma [gcig-gnyis] song-nas,
'Then, after a day or two have gone by,'

ŋa tē:mu taga, drugeji:
nga ltad-mo ltā-ga, 'gro-gi-vin.'
'I will go to see it.' (G. and R., altered).
Tone Two

'on ji:ge: tʃik di nāŋ素材 tʃhū:na,
'q-o-na ya-ca'i goig [de] žnang-rgyu byungs-na,
'Then, if this should turn up up there for doing,'

gar re:tse naga, drugṣi::

gna ras-cha nyo-ga, 'gro-ci-vin.
'I am going to buy cloth.' (G. and R.)

Three Pitch Marks

Tone Two

cimē: di druybe ji:nomi:,

skyes-dman 'di 'brug-pa vin-na-min,
'Whether this woman is Bhutanese or not,'

Four Pitch Marks

Tone One

dini sʌːŋu:nu, tʃakba: ra: themba:jinצה, gam tʃaː:me.
[de-ni gsar-'gyur]-'tsho, lcags-par [rang thon-pa-vin-
tsang, gam tsang-ma.]
'Very clear, then, these newspapers, since the type-press started.'

1 mf: is a spelling pronunciation (LT mē:).
Tone Two

dewa pha: j\^: ringu de\:ba\:diniz\^,
depag phar rgyun ring-po bsad-pa-yin-tsang,
'Since they have lived for some length of time in these parts,'

For further Intonation-2 examples see App. III, 212131112.

In the example of the Non-Sentence-final Particle ga/kag in an Intonation-2 Clause (nga) the fall in pitch that is the characteristic feature of Intonation 2 is associated with the Verb Syllable, which is also the initial Syllable. Examples have however also been recorded of ga/kag in Tone-Two Words in which the fall is associated not with the Verb but with the Particle, and final, Syllable; e.g.

dine: t\^ik namd\^i: dini mi \^emba:gi t\^ihlu:le turya:,
[de-nas cig lam-sang de-ni] mi g\^zan-pa-gi cha-lugs[-la] 'gyur-kag,
'Next, then, in order to change at once to the customs of some other people,'
tromle khare: si:ga, the:gi jimba.
khrom-la ga-re gzi:gs-ga, thad-kyi-vin-pa.
'Why are you going to the bazar?' (G. and R., altered).

khare tsh:ga, drugojimba.

gare byed-ga, e:tro-gi-vin-pa.
'For what purpose are you going?' (G. and R., altered).

The same pattern has also been once recorded for a Tone-two Word in which the Particle is due:

khø: tge: dundyi,

khøs drel brdungs-dus,
'While he was beating the mules,'

It is difficult to account for this difference in the pitch behaviour of Tone-two Words comprising the Particles ga/kag and dus in Intonation-2 Clauses.

The Intonation-2 patterns are also, though infrequently, appropriate to the first alternative of the Alternative-Interrogative Sentence; e.g.

Tone Two
1 7 7.


lcags-par da-ga vin-na, yang rdo-par vin-na.

'Is it really a type press, or is it a litho press?'

(For vin-na in the second alternative, see Emphatic Intonation, 21212221, Two Pitch Marks; and for vin-na in an Intonation-1 Clause, see 21212111, a).

21212112. Emphatic Intonation

In Emphatic-Intonation Clauses one of two types of pitch pattern is possible for a given Vb. + Part., or Vb., Word according as that Word is (21212121), or is not (21212112), prominent. When not prominent, its component Syllables are characterized by a pitch that is level and low, and the Particle Word (de'i), if exemplified, is characterized by a high pitch; when prominent, the Verb Syllable of the Word is characterized by a fall in pitch; and the final Syllable, or, if exemplified, the Particle Word de'i, may or may not be characterized by a rise; e.g.

Word prominent: \(-(-)\), \(-(-)\); \((-)\), \((-)\);

Word not prominent: \((-)\), \(-(-)\).
21212121. **Verb + Particle Word, or Verb Word, Prominent.**

As will have been observed from the pitch patterns given in the previous paragraph, in which 1W and 2W patterns are given alternately, the Tonal criteria are as stated for the non-Emphatic Clause (21212111), and the patterns appropriate to the Verb + Particle Word in Emphatic Clauses in which it is prominent do not differ much in general outline from the patterns appropriate to Non-Emphatic Clauses. There is however one important difference: the absence from this type of Emphatic Clause of the two patterns (1W) and (2W) **,** appropriate to disyllabic Words in which the Particle is a member of Group 1 (21212111, 1); with the result that these two patterns are a criterion of Non-Emphatic-Clause Intonation. This does not mean that Words that include a Particle drawn from Group One are restricted to Non-Emphatic Clauses, but merely that in Emphatic Clauses, such Words are characterized by a different pattern: the initial Syllable of the Word is characterized by a fall in pitch: \[\downarrow, \downarrow, \downarrow, \uparrow.\] Of these patterns, two, the falling-rising patterns (\[\uparrow, \downarrow\]), are identical with the patterns that, in Non-Emphatic Clauses, are the reason for distinguishing Group-Two from Group-One.
Particles (212121111, ii); but no such grouping of Particles is required in Emphatic-Intonation Clauses in which the Verb + Particle Word is prominent. Even so, however, it should be recognized that, although here Words that include a Group-One Particle may share this same falling-rising pattern with Words that include a Group-Two Particle, the implication of the pattern is not necessarily the same for both of them: for the Group-One-Particle Word the falling-rising pattern must imply Emphasis; for the Group-Two-Particle Word it may, but does not necessarily, imply Emphasis, and other features have also to be taken into account. These additional features, which are thus criteria of Emphatic as against Non-Emphatic Clause Intonation, are: that in the case of the Emphatic Clause the fall in pitch associated with the initial Syllable of relevant Tone-one Words is from a higher pitch; this fall in pitch may be preceded by a slight rise, especially noticeable in Tone-Two Words; and the prominent Word may owe some of its prominence to the association of low level pitch with the preceding Word, following Word, or both. It may well be this last feature that contributes most to the prominence of the prominent Word.

As in the case of the Non-Emphatic Clause, so also
Here a two-term Intonation system is recognized, the criteria of which, incidentally, are the same as those of Non-Emphatic Intonation 1 and 2 (2121111). These two terms are also named Intonation 1 (212111211) and Intonation 2 (212111212).

2121111. Intonation 1

Here, the high pitch characterizing the Verb Syllable of Tone-one Words and the low pitch characterizing the Verb Syllable of Tone-two Words are also either falling or rising-falling. The pitch patterns of the relevant Words are:

Tone One: \( \overline{(-)} \), \( \overline{(-)} \);

" Two: \( \overline{(-)} \), \( \overline{(-)} \);

Tone One

\[
\text{dine: tshiBu: ma nanzi} ;
\]

de-nas chibs-bsgyur ma emang-tsang,

'Then, since he is not coming,'

\[
\text{di go ta kup nybu ma shi:ji} ;
\]

[de] mgo dang rkub ra-po ma tshang-bzhin,

'And when it is not complete from head to foot, sort of,'

\[
\text{shinjA} ; \quad \text{shi-nas-yang},
\]

'Even if you die,'
Tone Two

'\(\text{di jinza} = ['\text{di} tsang, 'Since this was so,'\)

'\(\text{bya bzhin}, '\text{Well, then,'}\)

khü: thagu medü:ji:

khunga dag-po ma-byung-shes,

'When the source is not of good quality,'

No examples of ze/se have been recorded in Intonation-One Clauses.

2121211212. Intonation Two

The high, or low, pitch characterizing the Verb Syllable, falls, just as for the Intonation-One Clauses (2121211212); the final Syllable is characterized not by a rising, but by a low and level, pitch:

Tone One: \(\text{\_\_ (\_\_)};\)

Two: \(\text{\_ (\_\_)};\)

Tone One

\(\text{\paranzo ji\textbf{\textmu} ma ji:nc}, nza-rang-'tshos zhe-po ma shes-na'i, 'Even though we may not know much,'\)

\(\text{-shes is taken to be a mis-spelling for -bzhin.}\)
'He did a sort-of series in the newspaper, but' 

'They requested -- that I should give a detailed and accurate explanation there of all the differences between these.'

Tone Two

'Having made recordings like this,' 

'In that case,'
212121122. *Verb + Particle Word, or Verb Word, Not Prominent*

Where the Verb + Particle Word is not prominent, its component Syllables are level in pitch, and low, though the pitch of the Particle Word (*de'i*) may be high (Intonation-Two Clauses). In this prosodic type of Clause there are no pitch criteria of Tones One and Two (for other criteria, see 212122); and the relevant pitch patterns are as follows:

**Intonation One**

- - - 

**Tone One**

and 

- - - - - 

**Tone Two**

(A monosyllabic example, - is also possible, but only in the case of a Tone-Two Word, the Verb being exemplified by *byas*; see also 212121112, i).

Examples are as follows:

**Tone One**

\[ \underline{\underline{- - - -}} \] 

tha thir: khsâ: tsyndry: t|he thu:ne, 

da da-rîng kha-sa[ng] brtson-|rrus byed thub-na, 

'Now, if, at the present time, you can make an effort,'
When you set the type press up,

'Since they do not understand the purpose of it,'

'Tone Two

Now if we turn it into Tibetan,'

When I came down to Da --- Das Mile, having taken a walk down there,'
And now, (say you) print two or three thousand, however many you do print.'

Three Pitch Marks

Tone One, 

The nasality that is here co-articulated with the final labial closure of ṛgyab is attributable to Junction, with the Syllable initial of de in the following Sentence.

The two orthographic forms ṛgyag and ṛgyab both refer to the same lexical item, and reflect a difference in pronunciation, the former without, and the latter with, Syllable-final labiality. Both labial and non-labial pronunciations were heard from R., the former being the more common (the reverse seemed to be true of other LT-speakers); but the spelling ṛgyag is in any case not appropriate to the phonetic form (ṛgh) recorded here.
For further Intonation-One examples see App. III, 21212122.

Intonation Two

Tone One and

Tone Two e.g.

Tone One

?adza la: kundylv tjag, samdzfu de,
a-locas lags sku-mdun-la boar-dgos, bsam-byung 'da'i,
'I must go and call on Auntie, I thought, but -- --.'

Tone Two

dine ma:ko palisigi t'habi cypju du: de,
[de-nas] ma-khud pa-rad-se'i phyag-dpe skyon-ngyu 'dug de'i,
'Then there was Marco Pallis's book to be printed, but -- --.'

khode khuqilu: de, ge-ta go-gi-'dug te,
'I did indeed see him, but -- --,' (Bell).

Only one Non-Sentence-final-Clause Particle has
been recorded in Intonation-Two Clauses: de'i/te/ta'i/'das
(Particle Word.)
There is, however, another Particle besides *de'i* that has been recorded in Intonation-Two Clauses: the Alternative-Interrogative Particle (*na*) in the first alternative; e.g.

Tone Two

\[ \begin{array}{c}
\text{kango: } \text{jì:na:}
\end{array} \]

rkang-skor vin-na'i, glog vin-na.\(^1\)

'Is it foot-operated, or is it electric?'

In this example *rkang-skor* is contrasted with *glog*.

It is clear from the above examples that both Verb and Particle Syllables do not have fixed relative pitches; on the contrary, a given Syllable of either grammatical type may have more than one kind of pitch behaviour in accordance with differences in the pitch behaviour of other Syllables in the same Word, Clause, and Sentence. Thus, the Verb Syllables (i) *gnang* and (ii) *byas* have been observed to have three different types of pitch behaviour:

\(^1\)*na'i* is a phonetic spelling intended to symbolize the long duration of vowel (ː) and the openness of vowel (a) that characterize the Particle Syllable *na* in the first alternative.
i. high level: \text{\textbar} \text{nā:\textbar} \text{nə} \ (212121111, i),
" falling: \text{\textbar} \text{naŋ\textbar} \text{zā}: \ (212121121),
low level: _\text{naŋ\textbar} \text{zā}: \ (212121122);

ii. " falling: \text{\textbar} \text{tjhe:\textbar} \_n \ (212121112),
" rising-falling: \text{\textbar} \text{tjhe:\textbar} \_\text{fī} \ (212121122),
" level: _\text{tjhe:\textbar} \text{nə} \ (212121122).

The Particle Syllable tsang, similarly, has three types of pitch behaviour associated with it:

high level: _\text{thu:\textbar} \text{dzā}: \ (212121111),
low rising: _\text{naŋ\textbar} \text{zā}: \ (212121121),
" level: _\text{naŋ\textbar} \text{zā}: \ (212121122).

In all cases an attempt has been made to relate differences in the pitch behaviour of the Syllable or Syllables of a given lexical item to differences in the pitch behaviour of other Syllables through stating Tone systems for the Word and Intonation systems for the Clause.

The examples in section 212121 also serve to re-inforce a previous statement (0522) that members of the Particle category are not restricted to Words of a particular Tone, and cannot therefore be given a Tonal classification: in the above examples the Particles na, dus, nas, etc. correspond to constituent
Syllables of Tone-One and Tone-Two words alike. With Verb Syllables, on the other hand, there is a restriction: the Verb Syllables *mang*, *chung*, and *shes*, for example, are confined to Tone-One Words, and *hyas*, *hunng*, *hadad*, and *vin* to Tone-Two Words. All Verbs may similarly be classified as Tone-One-Word or Tone-Two-Word Verbs.
The Sentence-final Clause, like the Non-Sentence-final, contains Vb. + Part. Words, Vb. Words, and Part. Words; and here too, in order to secure certain economies in statement, the three types of Word are dealt with not separately and in turn but as far as possible simultaneously. The types dealt with in this section, then, are: (i), the Vb. + Part. Word; (ii), the Vb. Word, provided that it is associated within the Verbal Phrase with an immediately following Sentence-final-Particle Word; (iii), the Particle Word, provided that it is classifiable as Sentence-final. The remaining Vb. Words, those which are immediately followed by either another Vb. Word, a Vb. + Part. Word, or a Negative-Particle Word, are dealt with at 2121213; the remaining Part. Words, those not classifiable as Sentence-final, are dealt with at 2121214 (the Negative Particle ma only).

The Sentence-final sub-category of Verbal Particle comprises thirty-two members. These thirty-two Particles are on a different footing from the members of the Non-Sentence-final sub-category (2121211); for they are not confined to the Sentence-final Clause, and some of them have in fact already been exemplified from the Non-Sentence-final Clause. They are: Vin, Vod,
min/man, med/mad, na/ba/ra/nra/ra (Past), kvi/mvi/rd
(kvis/kvis/gis when Clause-final), ro/dgos, yong, sonc,
byung, shag/shag, na/mi, red, 'dur, myong/nyung, 'dra,
'ITO/ITO, na/ra (Corroborative Interrogative),
na/ka (Future Special Interrogative), na/ra/nra (Special
Interrogative), pa/ra/na (Alternative Interrogative),
pa/ra/nra (Exclamatory), shig, do, a (Imperative),
a (Dubitative), pas/raa/nraa/raa, no, na (Special
Interrogative), na (Exclamatory), dang/da (Imperative),
dang (General Interrogative). ¹

Some of these Particles are orthographically and
phonetically similar, and are therefore briefly
distinguished in the following remarks. The Past
sub-category of Particle (pa/ba/ra/nra/ra, byung, sonc,
etc.) is so named from the fact that it is confined to
Past-Tense Clauses, and may therefore colligate within
the Clause with a sub-category of Noun (also termed
Past-Tense, or Past), e.g. zla-nyung, 'last year'.

¹ The terms Special Interrogative, for Interrogative,
Clauses that contain Interrogative Nouns, and General
Interrogative, for Interrogative Clauses that prehend
some such reply as la red, 'yes', la ma-red, 'no', is
based on the terms special question and general question
used in Everyday Sentences in Spoken English (H.E. Palmer
khas-sa, 'yesterday', mdang-drong, 'last night'; the Past-Particle Syllable pa/ba/ra nga/ra is, in addition, invariably characterized by a low and level pitch, and is never final in the Word; e.g. de'i sngas-nas [cig] dbyon-[skad] slab-nyan mang-po byung-nga-red (tshunbore), 'Before that there were many people learning English' (Past-Tense Noun: sngas, 'before'). The Exclamatory Particle ga/nga/na is invariably final in the Clause, and is characterized by a fall in pitch; e.g. spyi-ni de skom-sa'i 'dug-ga (duga), 'what a shortage of sugar there is too'. The Special-Interrogative Particle (ga/ka, pa/ga/nga, na) is confined to a sub-category of Interrogative Sentence (Special) in which it is colligated with a sub-category of Noun termed Interrogative Noun, e.g. ga-'dras, 'what kind of', su, 'who', ga-pa(r), 'where'; of its three members ga/ka differs from the other two, and therefore forms a further one-member sub-category, Future, which colligates within the Clause with a sub-category of Noun termed Future-Tense-Clause, or Future, e.g. sng-nyin, 'tomorrow', phyi-lo, 'next year', sng-zhog, 'tomorrow morning'; i. (Future) thugs ga-bar sku-bzhugs gmang-ga (nanga), 'where shall you stay'; ii. (Non-future) thugs ga-par sku-bzhugs gmang-nga (napa), 'where did you stay'; 'di ga-re
yin-na (jī:na), 'what is this; I wonder'. The Alternative-Interrogative Particle (pa/ga/na) and the Corroborative-Interrogative (pa/ra), on the other hand, may not be colligated within the Clause with the Interrogative sub-category of Noun; nor may the Exclamatory Particle na; e.g. i. (Alternative) lha-sar phebs-pa (phe:ba:), rgyal-rtser phebs-pa, (phe:ba:); 'Did you come to Lhasa, or did you come to Gyantse'; lcags-par -- yin-na (jī:na:), dang rdo-par yin-na (jī:ne), 'is it -- a type press, or is it a litho press'; ii. (Corroborative) (-pa-, be is an example of the Past Particle pa/ba/ga/nga/ra), nga-rang-tsha mi-lus -- len-pa-red-pa (lēmberiba:), 'we -- assumed -- human shape, did we not'; iii. (Exclamatory) 'di zhe-drags vag-po dug-na (du:ne), 'mm, this is very good'. An Alternative-Interrogative Sentence usually contains two Clauses, in the first of which, and usually in the second as well, the Alternative-Interrogative Particle is exemplified. These two Clauses are referred to as the first and second alternatives. The first alternative has already been dealt with in section 2122111, the Non-Sentence-final Clause.

The Imperative Particle a is either Clause-final or
Clause-final except for ze/se, e.g. bzhugs-rdan 'jak-a (dzas?a:), 'do take a seat'; the Exclamatory Particle a is Clause-final, and invariably preceded by the Particle na, e.g. 'dir yod-na-a (je:ne?a:), 'I wish he were here'; the Dubitative Particle a is never either Clause-final or preceded by na, e.g. vag-po shea-kvi-a-yod (jisingajoe), 'I do not think I do know it well'; 'brug-pa a-yin (?ajéi:), 'I doubt whether he is Bhutanese'.

The Sentence-final Particles that, like de'! in the Non-Sentence-final Clause, must, on Junctional grounds, (11132), be treated as corresponding to Words are:

dang (Interrogative), and, but not consistently, dang/da (Imperative), gro/'gro, and do (211122-3, 211125-6).

As Particle Words, differences in their pitch behaviour are ascribed to differences in Clause Intonation not to differences in Word Tone; but, as has been explained above, it is nevertheless convenient to illustrate these Intonational differences here, while stating the pitch exponents of Tones One and Two for the (Vb. + Part., or Vb.) Word preceding the Particle Word; (i), Vb. + Part. Word: dagos-kvi-mad 'gro, bagriga-kvi-yod-pa-red dang, (ii), Vb. Word: med 'gro, red dang, ltos dang.
The Particles referred to in the preceding paragraph, dang, dang/da, do, and pro/pro, are all confined to the Verbal Phrase, and cannot be exemplified except in colligation, either within the Word or within the Phrase, with a Verb. There are in addition the Particles referred to in 211127, which may be exemplified in Verbless Sentences in the circumstances stated there, i.e. in reply to another speaker's General-Interrogative Sentence, and in an echo Sentence, in which the Words of another speaker are in part echoed, in agreement. Particle Words of this latter type, e.g. ma-myong, 'never', mi-'dug, 'They would not', yod-na, 'mm, he does', are, like those of the preceding paragraph, also treated as non-tonal; and it is convenient to deal with their pitch behaviour also under the heading of the appropriate terms of Intonation systems together with those of the (tonal) Verb and Verb + Particle Words.

The distinction between Non-Emphatic-Clause and Emphatic-Clause Intonation that was adopted for the Non-Sentence-final Clause (212121) is applicable here too; and the criteria of 1W and 2W are stated within the framework of a corresponding two-term Intonation system: Non-emphatic (21212121), Emphatic (21212122), though only those exponents of these two terms which are
relevant to the Vb., Part., Word, etc., are considered here.

The order in which the pitch behaviour of the three types of Word considered in this section (p. 130) is dealt with is shown in the following figure:

Non-emphatic Intonation

\[
\begin{array}{c|c|c|c|c|c|c|c}
\text{Group-1 Particles} & \text{Group-2 Particles} \\
\hline
\text{Intonation 1} & \text{Intonation 2} & \text{Intonation 1} & \text{Intonation 2} \\
1W & 2W & 1W & 2W & 1W & 2W & 1W & 2W \\
\end{array}
\]

Emphatic Intonation

\[
\begin{array}{c|c|c|c|c|c|c|c}
\text{Word Prominent} & \text{Word not Prominent} \\
\hline
\text{Similar to Non-emphatic patterns} & \text{Exclusively Emphatic patterns} & \text{Intonation 1} & \text{Intonation 2} \\
1W & 2W & 1W & 2W & 1W & 2W & 1W & 2W \\
\end{array}
\]

All these patterns have to be taken into consideration:

21212121. Non-emphatic

In the Non-emphatic-Intonation Clause the pitch exponents of the Tone-One and the Tone-Two terms are the same as for the Non-emphatic Non-Sentence-final Clause (21212111): 1W: high pitch characterizing the Verb Syllable; 2W: low " " " " Since the Verb is in most cases the initial category in the grammatical structure of the Word (21142), these
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exponents come near to being equivalent to: 1W, Word-initial high pitch; 2W, Word-initial low pitch; but this latter wording would fail to cover some Vb. + Part. Words in which the initial category in the grammatical structure of the Word is, exceptionally, not the Verb but the Particle; e.g. mi-'dur, a-vin, a-vod (Part.: mi, a; Vb.: 'dur, vin, vod; (21142)).

For pitch features in addition to this bare minimum, which nevertheless suffices for the purpose of distinguishing the Tone-One Word from the Tone-Two, the following factors have to be taken into consideration: the particular members of the Particle category that are exemplified in any given Word, the Intonation of the Clause, and the sub-category of Verb, i.e. whether that sub-category is, or is not, the Verb Complement.

All three factors have to be taken into consideration: but it is more economical in this instance to depart from the order of statement adopted for the non-Sentence-final Clause, whereby Intonation systems were given priority in statement) over the Groups of Particles, the latter being considered within the framework provided by the former, and to begin by grouping Words on the basis of the Particles that they include. The key to this grouping of Words by their Particles is, the first
Particle Constituent of the Word; and this Particle corresponds usually to the second Syllable of the Word, but, exceptionally, to the first, as in a-yin, a-yod, mi-'dug (21142). Once this first Particle is known, the range of possible pitch patterns for the whole Word is very much reduced. Two groups of Particles need to be distinguished: Group 1 (212121211), Group 2 (212121212).

212121211. Group-1 Particles

Group 1 comprises: byung, song, shag/zhar, yod (but see the following paragraph), 'duc, na/ha/ra/nca/ra, dros/ro, vong, ra/ra/nca (Special-Interrogative) (but with exceptions where the Verb belongs to the Verb-Complement sub-category), ra/ka (Future Special-Interrogative), pas/gas/njas/ras (except where the Verb belongs to the Verb-Complement sub-category), ma/mi, ha (Special Interrogative), na (Exclamatory, where not followed by a), na/ra/na (Alternative-Interrogative, cro/cro, shir, do, danca/da (Imperative); to which may be added ri(s)/gvi(s)/kvi(s) provided either that it is final in the Sentence (in which case the -s spelling is usual) or that it is followed by pas, thus making a total of twenty.

When the first Particle Constituent of the Word is the Particle yod and, at the same time, the immediately
following Particles are \( \text{ra} \) and \( \text{reb} \), patterns appropriate both to Group-1-Particle Words (\( - \ - , \ - \ - \)) and to Group-2-Particle Words (\( - \ - , - \ - \)) have been recorded. This variation in pitch pattern seems not to be accountable for in terms of Emphatic and Non-Emphatic Intonation; and examples have therefore been included under both heads: Group-1 Particle \((2121212111, \text{Three Pitch Marks})\); Group-2 Particle \((2121212121, 3)\).

Where the first Particle to follow the Verb is one of the twenty members of Group-1, the high \((1W)\), or low \((2W)\), pitch of the Verb Syllable is also falling. This description of the Verb Syllable may stand irrespective of the intonation of the Clause; but, in order to account for the pitch behaviour of the Particle Syllables in the Word, the following examples are grouped under one or other of the two terms of an Intonation system, Intonation One \((2121212111)\), Intonation Two \((2121212112)\), thus making it possible, at the same time, to relate certain Sentence-final Particles to the appropriate term of the Intonation system. The Particle \( \text{no} \), for example, is restricted to Intonation-Two Clauses, and may therefore be termed an Intonation-Two-Clause, or Intonation-Two, Particle.
It may be said in passing that the criterion of Intonation One, as against Intonation Two, is a Clause-final non-rising pitch: either falling (\, \,) or low and level (-). The pitch patterns of Tone-One and Tone-Two Words are, then, as follows:

1W:  
   \( a, i. \ \frac{\uparrow}{\downarrow}, \ \frac{\downarrow}{\downarrow} \)  
   \( \frac{\downarrow}{\downarrow}, \ \frac{\downarrow}{\downarrow} \)  
   \( \frac{\uparrow}{\downarrow}, \ \frac{\downarrow}{\downarrow} \)  
   \( \frac{\downarrow}{\downarrow}, \ \frac{\downarrow}{\downarrow} \)  

The pitch patterns given at (a,i) are those of Verb Words and of Particle Words; those given at (b), Word-initial fall and Word-final low and level, apply not only to disyllabic but also tri-, quadri-, and quinti-syllabic Words. This latter possibility has been indicated by bracketing the last two pitch marks.\(^1\)

The final pitch mark (-) of the section-b patterns may refer to the final Particle Syllable of a Vb. + Part. Word, or to a Particle Word. The Particle Words are

\(^1\)The number of pitch marks in the examples does not always correspond to the number of Syllables recognized for the corresponding Word (or Words; for an example may include a Particle Word) in the phonological analysis. Thus \( \text{jo:re, yoc-red/yod-red/yod-na-red} \), appears in the section dealing with the two-pitch-mark pattern \( \frac{\uparrow}{\downarrow}, \) but is nevertheless treated as a trisyllabic Word in the Phonological analysis.
dealt with as follows: Two Pitch Marks, ɗeŋ (Imperative), ɗɗ/ɗɗ; Three Pitch Marks, ɗɗ/ɗɗ; Four Pitch Marks, ɗɗ/ɗɗ, ɗeŋ (Interrogative).

In order that the examples may not be so numerous as to obscure the type of statement adopted here for Tone and Intonation, a number of examples, both from this section and from other sections of 2121212, have been relegated to an appendix (Appendix III, p. 682). The fact that they appear in an appendix and not in the body of the thesis does not, however, mean that the relegated examples are of less account than the others: they are, on the contrary, on a par with them; for the pitch features of Syllables are given equal treatment in the thesis with their other phonetic features. It is therefore necessary in general to give an account of the pitch behaviour of Noun Syllables, Adjective Syllables, etc., and in this particular section to give examples of all possible variations in the pitch behaviour of Syllables identified with every member of the Verb category, and of the Verbal sub-category of Particle.

Similarly, in the interests of clarity, remarks qualifying, and limiting the application of, certain general statements have been left until the end of the
section to which they refer (see the sections headed 'Notes'; pp. 206-14).

Examples are as follows:

a. Final Fall in Pitch
i. One Pitch Mark

---
| thONE k'i:sâ:gi dÊ:me: kô:ne to:dz fik kamö: nâ:
| da ['o-na] ge-sar-gyi mdan-ma'i skor-nas rtog-rtse xei
dkâ'-mol smang. (Vb. Word).

'Then please say a little, now, on the subject of Kesar's mdan-ma.'

Tone Two

---
| sosê: lungbe: tshube khê:.
sô-so'i lung-pa'i phyu-pa gyon. (Vb. Word).

'Wear one's national dress!'

---
| khôrâ: phê:be re:, drugbe re:

kho-rang bod-pa red, 'brug-pa red. (Alternative-Interrogative Sentence).

'Is he Tibetan, or is he Bhutanese?'

This last example refers only to the second of the two alternatives, see Non-Sentence-final Clause (pp. 171-2).
All the examples given in section (a) so far have been of Verb Words; the second of the following pair of utterances, (2), provides an example of a Particle Word (yod);

1. bu bzhugs-gdan 'jags-yod-nas (Vb.: 'jags; Part.: yod, nas). 'Are you at home, Rinzin?'

2. la jë: la yod. 'Yes, I am'.

The pitch behaviour of this Particle Word yod is identical with that of the Verb Word yod in the same intonational type of Clause: low fall; and so is that of such other Particle Words as red, vin, byung, med.

For further examples, both of Verb and of Particle Words, see Appendix III, 2121212111, a.

ii. Two Pitch Marks

The sole Vb. + Part.-Word example in this section is the 2W mi-yong, in which the Verb belongs to the Verb-Complement sub-category, the Particle category being exemplified by mi (Negative). The fall in pitch characterizes the final (and Verb) Syllable, as in section (i), but this Syllable is not the only Syllable of the Word; e.g.
'No, there would not be very many.'

The same pattern has also been noted for the disyllabic Particle Word ma-myong, which appears in the second utterance, at (2), below:

1. khyod rdo-rje gling-la 'gro-myong-ngas (Vb.: 'gro; Part.: myong, ngas).
   'Have you been to Darjeeling?'

2. ma-myong. 'No. (lit. not been)' (Bell).

b. Final Low and Level Pitch

Two Pitch Marks

Tone One

------

Ihag-pa rd- dy san-se-khe-te-ze tog-rtsi slob-sbyongs
shing-khorڅ ra-po ['di-'dras-se] mar ba'grigs-bzhag.
'The sort-of wooden tray has been put down ready like this.'
Disyllabic Particle Words have also been noted, with the same pitch pattern as that of the Tone-Two Vb. + Part. Word; e.g. the Particle Word *vod-na*, at (iii) below, in which R. in fact echoes not an other speaker's (T.'s) utterance but his own previous utterance at (i):


'Does he stay at Bhutan House?'

T. : ii. a-tha ma'le'i --- mal-le bryad-pa-la sa-'du tshang ko-ti.

"Sandu Tshang" Koti, at Ath Mail --- Eighth Mile.'


'Oh, yes, mm, so he does!'

For notes on the section-b Two-Pitch-Mark examples, see pp. 206-12 below.

Three Pitch Marks.

Tone One

\[
\text{di} \quad \text{thande} \quad \text{sibus} \quad \text{th5:man\'i.}
\]

de ngas da-lta zhe-po-se mthong-ma-nyung.

'Up to now I have hardly ever seen one.'
Tone Two

dani: ji:gi tsik dzomindu.
zla-rnying yi-se cia 'byor-mi-'dug.

'He has not received a letter during last year.'

For notes on these Three-Pitch-Mark patterns see pp. 212-14.

Four Pitch Marks

Tone One

de-nas [de]-ni lcags-par de ga-dus thon-pa-yin-na.

'Next, then, when did this type press come into operation?'

Tone Two


'Who was it made this?'

For additional section-b examples see Appendix III, 2121212111, b.

Notes.

The following remarks are notes on, and expansions of, the material presented above in section (b). They are grouped under the two headings Two Pitch Marks, Three Pitch Marks.
Two Pitch Marks

No examples could be given of the Past Particle pa/ba/na/nga/ra; for it is not found in disyllabic Words. The Interrogative Particle dang (Particle Word) is found in disyllabic Verbal Phrases only where the Verb is a member of the Verb-Complement sub-category, and is dealt with at 21212121, 5a, ii.

The Particle pa/ga of the Alternative sub-category of Interrogative Particle appears at Appendix III, 21212111, b, in 'phe:ba: (phebs-pa); the pitch pattern of this example, with its Word-initial fall, applies only to the second alternative, the first being non-Sentence-final (21212111, a, ii), and having no fall; e.g.

cherês: le:sa: phe:ba:, janzę: phe:ba:. khyed-rang lhas-sar phebs-pa, rgyal-rtsar phebs-pa. 'Did you come to Lhasa, or did you come to Gyantse?'

In the case of the Alternative-Interrogative Particle na too a fall in pitch characterizes the Verb Syllable in the second of the alternatives; e.g.
Attention has already been drawn (p. 198) to the fact that the pitch behaviour of examples in which the Verb is a member of the Verb-Complement sub-category may not be consistent with Group-1-Particle patterns stated above at 21212111,b, though these patterns do, however, apply where the Verb is a member of the Verb-Complement sub-category provided that the Particle category is exemplified by gro/'gro (App. III, 21212111,b) me: tro, mad 'gro: and cf. also mendro, min-'gro; jindro, vin-'gro), or either of the Particles na (i, Exclamatory; e.g. re:na, red-na, du:na, 'dug-na; ii, Special; e.g. je:na, yod-na, ji:na, vin-na); or by the Perfect Particle shag, in that a fall in pitch characterizes the Verb Syllable; e.g.

1Both pho:be and pho:be were heard from R. as pronunciations of bod-pa, 'Tibetan'. R. preferred the latter, but quite often used the former.
'...— and for that reason it has been a pleasure.'

(For shag in the Emphatic-Intonation Clause, see 2121212212, i: vod-shag, vin-shag); but in Vb. + Part. Words in which the Particle is exemplified by pa/ga/nga (Special-Interrogative sub-category), the fall characterizes the Verb Syllable in the case of the Main and Auxiliary sub-categories of Verb, and the Verb-Complement too when represented by vin and vod, but the Particle Syllable when the Verb Complement is represented 'dug'; e.g.

Main Verb

ja: khendra: nang.

yang ga-'dras ghang-nga.

'— — or how has he arranged things?'

pha:le: khadze: se:bai.

bag-leb ga-tshod bzos-pa.

'How many loaves have you made?' (G. and R.).
Verb Complement (vod)

tjala tshungju khare jo:ba:.

cala lag tshong-rgyu ga-re vod-pa.

'What goods have you for sale?' (G. and R., altered).

Verb Complement (vin)

kjo: sy: lugzi jimba:.

khyod su'i lug-rdzi vin-pa.

'Whose shepherd are you?' (G. and R.).

For an example of the Verb Complement 'dug, see 21212121, 5a, ii.

All eight members of the Verb-Complement sub-category are, however, consistent with each other, though inconsistent with members of any other sub-category of Verb, in Words in which the Particle category is exemplified by nas/gas/ngas/ras (General Interrogative): where the Verb is a member of the Verb-Complement sub-category, the fall in pitch characterizes the Particle Syllable (and cf. also the Group-2-Particle Word, 21212121, 2b); where it is not, it is the Verb Syllable with which the fall is associated; e.g.
Main Verb

le:sa: phe:be:

Ihas-sar phebs-pas.

'Did you come to Lhasa?'

so:de so:be:

gsol-la bzos-pas.

'Did you make tea for him?'

but cf. the Verb Complement:

nabe jimbe:

Inga-pa vin-pas.

'The fifth, is it?'

di ne: khala riše:

'di nga'i kha-lag red-pas.

'Is this my meal?'

1 vin-pas with a pitch pattern can only be a Nominalized-Verb Word, 'through our being': Vb. (vin), Nomzg. Part. (pa), Nomzg. Part. (-s); e.g. garang tšiogo: ma jim-be:, nga-rang- tsho cig-por ma vin-pas, 'through our not being alone'.

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yong-ngas, 'are there', in which yong exemplifies the Verb-Complement, is thus distinguished by pitch behaviour from xong-ngas, 'did you come', in which it exemplifies the Main-Verb sub-category; cf.

Main Verb

kā:n tā:lo jone:

rkang thang-la yong-ngas.

'Did you come on foot?' (G. and R.).

Verb Complement

phel:lo jī: bē:bu jone:

bod-la shing 'bel-po yong-ngas.

'Is wood plentiful in Tibet?' (Bell).

Three Pitch Marks

A very few examples of the section-b pitch pattern (\ - - ), with Word-initial fall, have been recorded for Vb. + Part. Words in which the first Particle is gl/gvi/kvi and the following Particle either red, 'duz, yin, yod, min, or med; e.g.

sā:jo: tīa:gei:

sang-zhog bear-gvi-yin.

'I will come and see you tomorrow.'
lo Ḫadza: ŭ thgaejema.
lo ga-tshod rtse thad-kyi-yod-na.
"About how many years is it since - - - ."
khari sungyduga.
gar re asung-ci-dug-ga.
"What does he say?"

By far the more usual patterns for such Words as these are those given at 2121212121, 2a, i: 1W, - - ; 2W, - - .

In the Negative and Interrogative forms exemplified at Appendix III, 2121212111, b, Three Pitch Marks, Four Pitch Marks, no fall in pitch characterizes the Negative-Particle Syllable (ma/mi) or the Interrogative-Particle Syllable nas/gas/ngas; with them may be compared Words in which the first Particle is a member of Group 2, in which it is these Syllables that are characterized by a fall in pitch (Appendix III, 2121212121. Negative: 2a, ii; Interrogative: 2b, i-.ii).

In the case of the Three-Pitch-Mark examples, unlike the Two-Pitch-Mark, the pitch behaviour of Words in which the Verb is a member of the Verb Complement sub-category does not differ from that of Words in which
it is a member of either the Main or the Auxiliary sub-category; hence byung-na-red, yin-na-red, and yod-na-red may be classified as Tone-Two Words on exactly the same grounds as, e.g. zer-na-red, bzos-na-red, brad-na-red; and byung, yin and yod may therefore be classified, with zer, bzos, and brad, as 2W Verbs.

21212112. Intonation Two

The criterion of Intonation Two, as against Intonation One, is a Clause-final rise in pitch. This rise may be associated with the final Particle Syllable alone (i, \_\_\_), in which case the final Particle will be one of the following: no, dang (General-Interrogative), na/na (Corroborative-Interrogative); or it may characterize not only the final Syllable but the last two Syllables, with the result that the last Syllable but one is observed as low in pitch and the final Syllable as high and level (ii, \_\_\_\_), in which case the final Particle will be na (Exclamatory). The first Particle of the Word is either the Past Particle pa/ba/ra/ra/ra/ra or the Perfective Particle yod. The following are the Intonation-Two pitch patterns for the last Vb. + Part. Word of the Clause and for the Part. Word (dang) too, if represented:
The pitch pattern given at (i), i.e. Word-initial fall, Word-final rise, with a low and level pitch in between, applies to Words with a differing number of Syllables: quadri- and quinti-syllabic Words in the case of Tone One, and tri-, quadri-, and quinti-syllabic Words in the case of Tone Two. These differences in the number of Syllables comprising the Word are indicated by brackets, though, as explained above (p. 200, n. 1), the number of phonetic pitch marks does not necessarily correspond to the number of phonological Syllables.

No corresponding 1W pattern is given for the section-ii pattern above; for none appears in the material, though such an example is thought to be possible.

i. Final Rise in Pitch

Three Pitch Marks

The sole examples contain the 2W Verbs *vin* and *vod*; and there is thus no 1W example for comparison:
dindre: jimbeno.

'di-'dras yin-pa-no.

'Is that how it is?'

Four Pitch Marks

1W

--- / ---

gamdzi: thejebeno.

agam-chung phye-yod-pa-no.

'Have you opened the box?'

2W

--- / ---

thare: dzigde: kham de mily: rolbu tsik lAmbabla.

da-[ran] 'lig-rten khams 'das mi-lus ra-po cig len-pa-
red-pa.

'We have at present, have we not, sort-of taken on
human shape in this External World?'

Five Pitch Marks

1W

--- / ---

kame: nanejimbeno.

bka'-mol amang-nge-yin-pa-no.

'Did he talk to you?'
'Did he stay here?'

For further section-i examples see Appendix III, 21212112, i.

ii. Final High and Level Pitch

2W

'\u{e29b}ag-go zhe-drag yong-nga-'dus-ga-na.'

'It would have turned out very well, would it not, mm?'

212121212. Group-2 Particles

The Group-2 Particles comprise the following: a (Imperative), \textit{voc} (but only when immediately followed by \textit{pa-red}), \textit{ci/gyi/kyi} (except when final in the Clause, or immediately followed by \textit{pas} ; Appendix III, 3121212111, b, Two Pitch Marks, Three Pitch Marks), a (Dubitative), \textit{na} (Exclamatory, but only where followed by a), \textit{pa/ga/nga} (Exclamatory); and, but only when the Verb belongs to the Verb-Complement subcategory, the following: \textit{ma/mi} (except \textit{mi-yong}, 2121212111, a, ii), \textit{pa/ga/nga} (Special-Interrogative, provided that the Verb is exemplified by
'duc), dang (General-Interrogative), pa/ra (Corroborative-Interrogative), a total of ten.

'vod when followed immediately by na-red appears in both the Group-1 and the Group-2 lists of Particles; for the pitch patterns appropriate to Words of either type seem to be in free variation; cf. also Appendix III, 2121212111, b, Three Pitch Marks, Four Pitch Marks.

Where the first Particle of the Word is one of the Group-2 list, whether that Particle precedes the Verb or not, the high (1W), or the low (2W), pitch of the Verb Syllable is also level, except where a rise in pitch is specified as an alternative in the case of certain Tone-two Words. In this section, too, in order to account for the pitch behaviour of all Particle Syllables, the examples are grouped under one or other of the two terms of an Intonation system, as Intonation One (2121212121), or Intonation Two (2121212122).

2121212121. Intonation One

The criterion of Intonation One, as against Intonation Two, is a Clause-final non-rising pitch, either low and level (,) or falling (\) (cf. also 2121212111), the 1W and 2W pitch patterns being as follows (the final pitch mark may also refer to a Particle Word: ñco/ñro, dang):
Examples are as follows:

1. **Particle a**

Only one member of the Particle category is included in Words of these pitch patterns: a (Imperative); the Particle Syllable is characterized by a fall in pitch; e.g.

1W

```
   - - -
   \   \khale: the:a:.
```

`ga-le thas-a.`

'Sir! Gently go.' (Bell).

2W

```
   - - -
   \   \one ju:a:.
```

'Go on rgyugsa-a.'

'Off you go, then.'
In the case of the 2W example a rise in pitch has also been recorded as characterizing the Verb Syllable in a Slow-Tempo utterance; e.g. gu:‘a:, smug-a, 'Hang on a minute'.

2. Particle gi/gvi/kvi

All the section-2 examples have in common the fact that the first Particle in the Word (the second Syllable) is gi/gvi/kvi. In these patterns this Particle Syllable is always characterized by a high pitch (but cf. Appendix III, 2121212111, b, Two Pitch Marks, Three Pitch Marks, in which gi/gvi/kvi is either final in the Clause or followed by nag), and the following Syllable (the third) either (a), by a fall in pitch, or (b), by a level pitch.

a. Fall in Pitch

Section (a) is further divided into sections (i) and (ii).

i.

In section (i) the third Syllable is also Clause-final, and is one of the six Particle Syllables yod, vin, 'dug, red, min/man, mad/med; e.g.


kha-di: tshib-yu: nan-aidu:

gsa-du: chibs-bszęvur enang-gi-'dug.

'When is he going?'

2W


drí-́u:

bsgrigs-kyi-'dug.

'You fix it up.'

For further section-i examples see Appendix III, 2121212121, 2a, i.

ii.

In (ii) the third Syllable is not final, and is followed by one, two, or three Syllables characterized by a low and level pitch. These final low and level Syllables are indicated by two pitch marks, the possible absence of the latter being shown by brackets.

The patterns given here apply to Words in which the final Particle is na (Special Interrogative), pa (Special Interrogative), or gro/gro (Dubitative); to Words in which the final three Particles are yod, pa, and red (often spelt phonetically as yod-red/yod-red); and to Words in which the second Particle Constituent
of the Word is ma/mi (Negative Particle) or a (Dubitative); e.g.

Four Pitch Marks

1W

\[\text{thu t\text{']hale: khar nang zi:ne.}\]

\text{thugs phyag-las [ga-re] mangs-zi-yod-na.}

'What work do you do?'

2W

\[\text{tha \text{']hanz\text{']o: mi:ge: namdra:le khandre: s sig zi:ne.}\]

\text{da nca-rang-\text{']tsho\text{']i [ma-gas] rnam-prangs[-la]}

gas-dras[-se] zer-gyi-yod-na.}

'Now what do we call the sum total of those things of ours down there?'

Five Pitch Marks

These patterns are appropriate to: Words in which the final Particle is \text{']dra}; Words in which it is \text{pa} (Corroborative-Interrogative) in Negative Clauses (for the usual pattern see Intonation Two, 2121212122, b, iii); Words that include the Particles yod, pa, red in that order; and Words that include the Exclamatory Particle na; e.g.
nyin-đung bar gmam yag-po bstan-gyi-vin-pa-'dra.
'It will probably be fine till midday.' (Bell).

tha khonzo: khå-menzę: phanje tshimbu junči-imbađra.
[da] kho-'tsho'i gang min-mdzad-kyi phan[-skyed]
chen-po yong-zi-vin-pa-'dra.
'Now, it will probably turn out to be of tremendous advantage to them.'

For further examples of section-ii pitch patterns see Appendix III, 21212121, 2a, ii.

b. Level Pitch

In section (b) the penultimate Syllable, one of the six Particle Syllables red, vin, yod, 'dug, man/min, med/mad, is characterized by a level pitch, either high or low; while the final Particle Syllable, which is either pas/gas (General-Interrogative) or pa/ga (Exclamatory), is characterized by a fall in pitch.

It is possible that the variation in pitch of the
penultimate Syllable, as high or low, is to be associated with Tempo, the high pitch being a feature of Fast, and the low pitch of Slow, Tempo.

i. Four Pitch Marks

1W

\[ \begin{array}{c}
\text{tshawe kiqinduge:} \\
\text{tsha-ba skye-gi'dug-gas.}
\end{array} \]

'Have you fever (a temperature)?' (G. and R.).

2W

\[ \begin{array}{c}
\text{jeda legi'sae:} \\
\text{bzhes-tha bzhes-kvi-yod-pas.}
\end{array} \]

'Do you smoke (H.) tobacco (H.)?' (G. and R.)

For further section-i examples see Appendix III, 21212121, b, i.

ii. Five Pitch Marks

This section comprises Negative forms corresponding to the Affirmative forms given in section i; e.g.
btang-gi-ma-red-pas.
'Will he not send it?'

par ɲaːgimindueː.
par rgyag-gi-mi-'dug-gas.
'Is he not printing it?'

For further section-ii examples see Appendix III, 21212121, b, ii.

3.

Three Pitch Marks

In this section the first Particle Syllable is either a (Dubitative) or vod (if immediately followed by pa-red). This Particle Syllable is characterized by a fall in pitch (and cf. also section 2a, ii: žiŋgiʔajfiː, sheš-kyi-a-vin; Appendix III, 21212121, 2a, ii: naŋgiːre, mangs-gi-rod-pa-red; and 5b, ii: ʔajfiː, a-vin; ʔajū, a-vong, all of which are similar in this respect); e.g.
'I suppose you have not printed that here now.'

He was born in Kham.

'Yes, with aconite poison.' (Bell) (but cf. also Appendix III, 2121212111, Three Pitch Marks).

For further Section-3 examples see Appendix III, 2121212121, 3.

Four Pitch Marks

This section contains General-Interrogative forms in pas corresponding to the Three-Pitch-Mark Indicative forms in yod-pa-red. In this type of example the final Particle Syllable (pas) is characterized not by a fall in pitch (as in 2b above) but by a low and level pitch (cf. also jo:ri:je:, yod-pa-red-pas/yog-red-pas,
Appendix III, 212121111, b, Three Pitch Marks); e.g. (no 1W examples have been noted in the material)

2W

\_ / \_ / \_

dale thu: jybjocripe.

mda'la dug rgyab-yod-na-red-pas.

'Will the arrows be poisoned?' (Bell).

4.

Here the Group-2 Particle is na (Exclamatory); and the following Particle, which is final in both Word and Clause, is a. The Group-2-Particle Syllable is characterized by a high and level pitch and the final Syllable by a fall in pitch; e.g.

2W

\ / \ / \ / \\

pe: pingja de: jə:noa:

nga'i spun-kyac mdas ('di-ru) yod-na-a.

'Would that my brother were here.' (Bell).

5.

The pitch patterns given in this section apply, with few exceptions (section a, i), only to Words in which the Verb belongs to the Verb-Complement sub-category.

a. Word-final Fall in Pitch

This section deals with those Words in which a fall
in pitch is associated with the final (and Particle) Syllable, the preceding Syllable or Syllables being low and level in pitch. Section a is sub-divided into sections i and ii.

i.

The Particle concerned here is pa ça/ nga (Exclamatory); and the Verb is a member of the Main-Verb sub-category. It so happens that no 1W examples have been noted. The examples are disyllabic; and only one Syllable therefore precedes the Syllable characterized by the fall in pitch (but cf. section ii); e.g.

(2W)

\[ \text{driga} \]

bsərīgs-ka, [sic].

'Quite right!'

ii.

In this section, and all the remaining sections of section 5 (b, i-ii), the pitch patterns illustrated are peculiar to Words and Phrases in which the Verb belongs to the Verb-Complement sub-category. Since all eight members of this sub-category are Tone-Two-Word Verbs, it is not possible to provide contrasting examples of Tone-One Words. The pitch patterns associated with these Words may comprise two, or three,
pitch marks; where there are three, the initial Syllable is a Particle Syllable (Negative Particle, ma/mi); where there are two, it is a Verb Syllable. The final Syllable is in either case a Particle Syllable: nas/gas/ngas, ga/ka (Special-Interrogative), pa/ga/ka/nga (Exclamatory), dang; e.g.

Two Pitch Marks

---

ŋabe jimbe: ınga-pa vin-pas.

'Is it the fifth?'

---


'What a shortage of sugar there is here in Kalimpong these days!'

This pattern is appropriate to Vb. + Part. Words in which the Particle is exemplified by ga (Special-Interrogative) provided that the Verb is exemplified by 'dug, and not by vod or vin (for which see pp. 209-10); e.g.
tha sambø kams: khari jùjù duqa.

(Special Interrogative).

'And now other topics of conversation --- what remains to be said?'

Similarly, where the Verb is exemplified by red or yod and the Particle by dang (General-Interrogative), it is the Particle Syllable that is characterized by a fall in pitch; e.g.

\[ \text{ri tā}: \quad \text{red dang.} \]

'Is that so?'

Three Pitch Marks

In this section the final, and Particle, Syllable is either the General-Interrogative-Particle Syllable pas/gas/ngas, or the Exclamatory-Particle Syllable pa/ka/nga; e.g.

\[ \text{jiyle: minduşa:} \]

vis-lan mi-'dus-gas.

'Is there no answer to the letter?' (G. and R.).

For further section-ii examples see Appendix III, 2121212121, 5a, ii.
b. **Word-Initial Fall in Pitch**

This section deals with the Words in which it is the initial Syllable, a Particle Syllable, either a (Dubitative) or ma/mi (Negative), that is characterized by a fall in pitch, from a low level in the case of ma/mi (section i), and from a high level in the case of a (section ii).

i Low Fall

Examples in this section are disyllabic; e.g.

```
/ - - - /
ma: di jakpo mindu.
```

mar 'di vag-po mi-'dug.

'This butter is not good' (G. and R.).

The above example is of a Vb. + Part. Word (Vb.: 'dug; Part.: mi); the same pitch pattern has been noted for a Part. Word, also mi-'dug, as in the second utterance, at (b) below:

a. da nga-'tsho bod-pa'i mi de kha-shad-la yar ha vag-po go-gi-mi-'dug. (Vb.: go; Part.: gi, mi, 'dug).

'Now, some of us Tibetans up there would not understand it properly.'

b. la mindu. [la mi-'dug.]

'No, you would not.'
For further section-i examples, see Appendix III, 2121212121, 5b, i.

ii. High Fall

Two Pitch Marks

\[ \text{la dindre: } \text{?^\text{ij}i:} \quad \text{la 'di-'dras a-vin.} \]

'I doubt whether it is like that.'

Three Pitch Marks

\[ \text{tj\text{h}a: di jagu } \text{?^\text{ij}i:na. chang 'di vag-do a-vin-na.} \]

'I doubt whether this beer is all right, mm.'

The Particle na is the Exclamatory Particle.

For further section-ii examples see Appendix III, 2121212121, 5b, ii.

2121212122. Intonation Two

The criterion of Intonation Two, as against Intonation One, is a Clause-final high and level pitch or a rise in pitch (cf. also 2121212112), the 1W and 2W patterns being as follows:

\[
\begin{align*}
1W: & \quad - - - , \quad - - - , \quad - - (-) , \quad - - (-) ; \\
   a. & \quad b , \quad i . \quad ii . \quad iii . \\
2W: & \quad - - , \quad - - , \quad - - (-) , \quad - - (-) ; \\
   \end{align*}
\]

\[
\begin{align*}
1W: & \quad \text{c.--;} \quad \text{d.--(-);} \quad \text{e. i. (---) ii.} \\
2W: & \quad \text{--;} \quad \text{--(-);} \quad \text{--(-);} \end{align*}
\]
In the case of monosyllabic, disyllabic, and some trisyllabic, Tone-Two examples a difficulty arises; for their pitch behaviour (__, --, --) considered in isolation, is equally appropriate to the final Word of an Emphatic Clause. In allotting examples as between the Emphatic and the Non-emphatic Intonation-Two Clause, therefore, the deciding factors have been on the one hand situational features,¹ and on the other, the pitch behaviour of other Words in the Clause: where the immediately preceding Word has a pitch pattern appropriate to the Emphatic-Intonation Clause, the 2W example in question is considered in the section dealing with Emphatic Intonation (2121212222).

All the examples in this section are Verb Words.

1W

- - - - - - - - / \ - - - /


'You know, I think there are some people in this district

¹ The author of the thesis was, if not actually present in the same room as the speakers, at least within earshot, while recordings were being made.
that do not know how to speak in the Honorific Style at all.'

sheg is the only example to be recorded in which an Imperative Sentence is characterized by Intonation 2; there are therefore no 2W examples.

2W

\[ \text{khâ: menze: miji: jagbu --- jagbu sibu fik du:} \]

gang min-mdzad mi-gshid vag-go vag-go zhe-no gcig 'du:

(Indicative Sentence).

'Incredibly good-natured --- he is very good-natured.'

In this instance Intonation Two suggests that the speaker's utterance is not yet complete.

For further examples see Appendix III, 2121212122, a.

b.

In section (b) (cf. also 2121212121, 2) all the examples have in common the fact that the first Particle Constituent in the Word (the second Syllable) is gi/gvi/kyi. With certain exceptions specified elsewhere (2121212111, b), all occurrences of this Particle Syllable are characterized by a high pitch.

\[ \text{Here the Particle gi/gvi/kyi is final in the Word.} \]

No Tone-One example appears in the sources, though there
is no doubt that such an example is possible.

For the second 'gro-gi see 212121221, Two Pitch Marks.

Examples in this section include pitch patterns with three, or four, pitch marks, hence the enclosing of the third of these in brackets.

Three Pitch Marks

Here the final rise in pitch characterizes one of the Particle Syllables vin, vod, red, 'dug, men, mad (cf. the Intonation-One examples, 2121212121, 2a, i);
e.g.,

byas-bzhin, -- bzhugs-la'i de[-yang] tshag-par

'Therefore, later on, too, you produce this too, the letterpress.'
'Well, I will say good-bye for to-day.'

Like the examples in section (a) above, Intonation Two here suggests that the speaker has not yet completed his utterance.

Four Pitch Marks

The final Particle of the Word is pa/ga (Corroborative Interrogative) and the preceding Particle red (with pa) or 'dug (with ga). The final Syllable is characterized by a rise in pitch, and the penultimate by a low and level pitch; e.g.

'da nya-tsho bod-pas byas-na, gung-sang. de-pag [gcig-gi-red-pa].

'Now, if we turn it into Tibetan, "holiday". It is the same, is it not, in this district?'

'dukṣ sigiriba:. 'dug-se zer-gyi-red-pa.

'That is what they will say, will they not?'
For further section-ii examples see Appendix III, 2121212122, b, ii.

iii.

Five Pitch Marks

The final Particle will be one of the Interrogative Particles: Corroborative, na/za; General, no, dang; while the Particle following the Group-2 Particle (mi/wi/wi) will be either vod, or the Negative Particle ma/mi. The final Syllable is characterized by a rise in pitch, and the third Syllable of the Word by a fall; e.g.

1W

\[\text{me: seneni, ja: thyns:riba:}\]


'As for if you say "no, we have not", "there is one starting up up there, is there not?"' [they reply].

2W

\[\text{dri:r ta:} \quad \text{basriss-kvi-vod-red dang.}\]

'Are they arranged?'

Six Pitch Marks

This section contains Negative forms corresponding to some of the Affirmative forms given in the previous
section, and further Interrogative forms in no; e.g.

\[ \text{Singio:mariba: shes-kvi-vod-pa-ma-red-pa.} \]

'I do not think they know it, do they?'

\[ \text{khoranu dodgi le:le de:gage:jimbeno.} \]
\[ \text{kho-rang-'tsho rdo-rie cling-la bsad-kvi-vod-pa-vin-pa-no.} \]

'Are they staying in Darjeeling, do you think?'

For further section-iii examples see Appendix III, 2121212121, b, iii.

c.

The Group-2 Particle in this case is a (Dubitative);
and it is the Syllable corresponding to this Particle
that is characterized by a fall in pitch; e.g.

\[ \text{tse: thu?:ai5: bead thub-a-vong.} \]

'They would not be able to cut it, I suppose.'

\[ \text{tha t[hu]ajü. da byung-a-[yong].} \]

'There will not be any now, I suppose.'
d.

The Group-2 Particle in this section is *yod*, followed by *pa* and *red*; and it is this Particle Syllable that is characterized by a fall in pitch (cf. also Intonation One, 2121212121, 3), while the final Particle is either *pa/ga* (Corroborative Interrogative) or *dang* (General Interrogative); e.g.

Four Pitch Marks

\[\text{de: ma: lu:ja:ri tā:} \quad '\text{da'i mar bzhugs-yod-pa-red dang}.\]

'Do they live down here, do you think?'

Five Pitch Marks

These are the pitch patterns for the Negative forms corresponding to the Affirmative forms given under Four Pitch Marks; e.g.

\[\text{kh5:lu yale phe:ja:mariba:}.\]

\[\text{drung-lo Inga-la phebs-yod-ma-red-pa}.\]

'He has not reached five yet, has he?' (G. and R., adapted).
'They have not printed it, I suppose, have they?'

For further section-d examples see Appendix III, 2121212122, d.

e.

The forms in this section are confined to Words in which the Verb is exemplified by a member of its Verb-Complement sub-category, hence the fact that no lw patterns are given.

f.

The Particle category is exemplified in the final Syllable by either na/na/nga (Corroborative-Interrogative) or dang (General-Interrogative); and it is this Particle Syllable that is characterized by a rise in pitch. In pitch patterns with three pitch marks the Particle category can also be represented in the initial Syllable, by the Negative Particle ma/mi.

Two Pitch Marks

/  -  -  -  /

jā: tšutri riba:; yang chu-spre red-pa.

'It is also "chutti", is it not?' [chutti (Nepali) = 'holiday']
Three Pitch Marks

\[ \text{they [\textit{\textsc{she}}] speak in unison. 'de'\textsc{i} songas slab-\textit{n\textsc{yan-se} life-\textit{dug-ga}.} \]

'Before that there was no-one that taught it, you know?'

ii.

The final Syllable here is the Particle Syllable \textit{na} (Exclamatory); e.g.

\[ \text{n\textsc{aranz g\textsc{jiris ph\textit{itr\textsc{e she}\textsc{e}: jik dug\textsc{a}}.}} \]

\[ \text{[n\textsc{sa-rang-`ts\textsc{ho\textsc{i}}} phi-\textit{ri-si phi-rin-si phi-tar zero-\textit{n\textsc{yan g\textsc{eciz `dug-ga}}[-\textsc{na}.}}} \]

'We have someone here called Prince Peter of Greece, have we not, mm?'

In the absence of the Exclamatory Particle \textit{na}, the rise in pitch would have characterized the \textit{ga} Syllable (Corroborative-Interrogative), as in section (i) above.

21212122. Emphatic Intonation

Those features of Emphatic Clause Intonation that are relevant to the \textit{Vb. + Part. Word}, the Sentence-final Particle Word, and, where associated within the same Verbal Phrase with Sentence-final-Particle Word, the \textit{Vb. Word}, include a number of pitch patterns that are specifically Emphatic. When associated with the appropriate grammatical type of Word, these patterns
are thus in themselves criteria of Emphatic Intonation without reference to other Words in the Clause. In other instances, however, the pitch pattern associated with a given Word of the Verbal Phrase may well be similar to one of the patterns already discussed in section 21212121 (Non-emphatic Intonation); and here the difference lies in the pitch behaviour of other Words in the Clause, particularly those which immediately precede and follow; for the prominence of the Word in question is related to, and varies with, the pitch behaviour of these other Words (cf. also 21212122).

As in the case of the Non-Sentence-final Clause (2121211) a distinction may usefully be drawn between those Clauses in which the Word or Words that are the focus of interest at this point (the relevant Word or Words) are prominent (21212121), and those in which they are not (21212122). When not prominent the relevant Words have a low and level pitch, except that the pitch of the final Syllable may rise (Intonation Two, 212121222; cf. also 21212112, 212121222); when prominent, on the other hand, the pitch falls at some point or other in the Word; e.g.

Word prominent: ' - , \ - - / , \ - / , - / , - - / , etc;

" not prominent: - ( - - - - ) , ( - - - - ) / .
212121221. Relevant Word Prominent

Where the relevant Word is prominent, the pitch exponents of Tone-One and Tone-Two Words in the Verbal Phrase are as stated for the Non-emphatic Clause (21212121): 1W, high pitch characterizing the Verb Syllable; 2W, low pitch characterizing the Verb Syllable. Here, too, it is necessary to set up a two-term Intonation system (Intonation One, Intonation Two); but, since the exponents of the two terms are as stated for the corresponding two terms of the Intonation system established for the Non-emphatic Clause, these two terms are not dealt with in the same detail as in the Non-emphatic Clause; and examples of both are given all together in the same section.

Some of the pitch patterns of the relevant Words do not differ in outline from those exemplified for the same type of Word in the Non-emphatic Clause; they are considered in section 2121212211. Those patterns which are peculiar to the Emphatic Clause, and are therefore criteria of it, are considered after them in section 2121212212.

2121212211. Similar Patterns to those of Non-emphatic Clause

Where the pitch patterns of the Emphatic Clause are
similar in general outline to those of the Non-emphatic Clause, the difference between the two is to be sought either, in the first place, in the pitch behaviour of neighbouring Words, or, secondly, in points of detail.

In the first place, then, the relevant Words of the Emphatic Clause that these common patterns characterize may be more prominent on account of the fact that these neighbouring Words have a low and level pitch instead of some other possible pitch pattern; e.g.

1W

\[\text{kh}\ddot{\text{h}}: \text{kh}\ddot{\text{a}}: \text{mz}: \text{jaqbu chingidu:}\]

khong gans min-mdzad vag-go mkyen-gyi-'dug.

'He does know it extraordinarily well.'

2W

\[\text{dyndra re: n}:\text{lh}: \text{sum s}:\text{oble jungju t}\text{he:ba}:\text{f}:\]

bdun-phrag re-re['i nangs-la] theng gsum [sab-la]

yong-rgyu byas-pa-yin.

'Three times a week I have had to go to the Sahib.'

\[\text{li}b\ddot{\text{g}}\ddot{\text{u}}: \text{rimbo khari khari tshiqi}:\text{za}:\text{pa:}\]

slab-sbyongs rim-pa ga-re ma-re byed-kyi-yod-pa.

'What sort of stage are you at in your schooling?'
A further feature of Emphatic-Clause Intonation is the fact that the last fall in pitch of the Sentence (which may or may not characterize the Verb Syllable) may be accompanied by a preceding rise (\, \); e.g.

\[ \text{\textit{fira jagu t\u{a}h\u{a}. zhe-drag yag-go byung-shag.}} \]

'That has turned out \textit{terrifically well}.'

\[ \text{\textit{de: ma: phe: j\u{u}ne phe:p\u{e} kun\u{e}:nzo: s\u{u}yu: ko:le pe the\u{n}aj\u{u}.}} \]

['\textit{da'i mar}'] bod gzhung-nas thebs-nyan sk\u{y}-ngos-'tshao['\textit{i}]
gsar-'gyur skor-la (?[dne thon]-a-[yong]).

'A copy would not be coming out, I suppose, with news of the Officials who are coming down here from the Tibetan Government.'

\[ \text{\textit{la re:na. la red-na. 'Mm; yes, it is.'}} \]

\[ \text{\textit{di de:j\u{a}: be: tha: r\u{u}bu t\u{e}h\u{o}:mas\u{u}.}} \]

['\textit{di 'da'i]-yang 'bad thag ra-po mchod-ma-song.}

'Here, too, this was not in fact sort-of decided.'

\[ \text{\textit{nams\u{a}: chingidu:. nam-sang mkhyen-gyi-'dug.}} \]

'He knows immediately.'

In the case of Tone-two Words in which the Particle
category is exemplified by both mi/mi/kgi and either
hin, red, vot, 'due, min, or med, as in the last
example, then not only may the final Syllable be
characterized by a rise-fall pitch (as in the last
example), but the preceding Syllable, or Syllables,
may be characterized by a low pitch; e.g.

\[\text{drigiri:} \quad \text{grig-kgi-red.}\]

'It will do!' [and you are mistaken in thinking that it
will not]; cf. the corresponding Non-emphatic form
(2121212121, 2a, i):

\[\text{di: cang-jaq fi tsa:n jungyindu;} \text{, sa.}\]

del ri mven-zvis wag-go [cig] tsang-ni vong-gi-mi-'due', se.

'For that reason they simply will not do, they say.'

2121212312. Exclusively Emphatic-Intonation Patterns

In addition to the two features of Emphatic Clause-
given in the preceding section there are certain pitch
patterns that are specifically Emphatic, and in themselves criteria of Emphatic Intonation irrespective of the pitch behaviour of other Words in the Sentence. All of these patterns have in common the fact that the final Syllable of the Clause is characterized by a fall in pitch, with the result that in the case of certain Sentence-final Words the Emphatic may be distinguished from the Non-emphatic Clause by the pitch behaviour of the final Syllable: falling (Emphatic); level and low (Non-emphatic). The Emphatic-Intonation patterns are the following three (i-iii):

i. two pitch marks

In section 212122111, ii (Non-Emphatic), the pattern given for Words analysed as Verb Complement + Perfect Particle (shag/zhag) is: \_\_\_, with the fall in pitch characterizing the initial (and Verb) Syllable; and a low and level pitch the final (and Particle) Syllable; e.g. tshu:ja, byung-shag, 'it has turned out (very well); but in the Emphatic Clause it is with the final (and Particle) Syllable that the fall in pitch is associated, while the initial (and Verb) Syllable is low and level; e.g.

\[
\begin{array}{c}
\text{kusu: d\text{\textasciitilde}bu j\text{\textasciitilde}a, re.} \\
\text{sku-gzuga b\text{\textasciitilde}e-po yod-shag, red.}
\end{array}
\]

'It is: "you are looking very well".'
'I see you are very well.'

In section 21212121, 5b, i (Non-emphatic), the pattern given for certain forms that are grammatically analysed as Negative Particle (ma/mi) + Verb Complement (red, 'dug), e.g. ma-red, mi- 'dug, is: .-. The fall in pitch here characterizes the Particle Syllable (ma/mi); but in the Emphatic Clause it is the Verb Syllable (and final Syllable of the Clause) that is characterized by the fall; e.g.

rame lu: fa: ta: s ndre: dzē, khē: mindu:
ra-ma lu: shā-stag[-se] bdre-byas, ras mi- 'dug.
'When the sheep got all mixed up with the goats, it simply would not matter.'

ma: sa: be rā: mindu:; mar gsar-pa rang mi- 'dug.
'The butter is not quite fresh.' (G. and R.).

takpo re: f jū: ne, jagpo mare:.
rtag-pa re-bzhin yong-na, vas-po ma-red.
'You must not keep on coming (To a beggar)' (G. and R.).

Correlated with this pitch pattern is greater duration
of the final vowel (minduː, mareː) than for the corresponding Non-emphatic (mindu, mare).

ii. Four pitch marks

Somewhat similarly, in section 2121212121, 2a, Four Pitch Marks; the patterns given for certain Negative forms are:

(lW), \- - \- \- ; (SW), \- - \- \- ; e.g. (lW), tʈʂʰiˈmaɾe, btang-gi-ma-red; (SW), driˈmaɾe, lɾiŋ-gi-ma-red.

In these Non-emphatic-Clause examples it is the Negative-Particle Syllable (and third Syllable) that is characterized by a fall in pitch; but in the Emphatic Clause it is the final Syllable that carries this fall; while the preceding Syllable has a low and level pitch; e.g. 1W

\[\text{tʃʰɛ:dzæː tʃʰiɲuː nʌŋiˈminduː.}\]

byas-tsang chiba-basuyur mangs-gi-mi-’dug.
‘And so he is not coming.’

\[\text{sɑŋ:piː dɔdʒi lingi trum tʃʰimbu di tʃʰoːqimereː.}\]

sang-nvin rdo-rje dzings-gi khrom chen-po de ’tshogs-gi-ma-red.
‘Tomorrow Darjeeling’s big market will not be held.’
'It will not do at all!'

The remarks on the greater vowel duration of the Emphatic-Intonation example made at section (i) above apply here too: du:, re:, cf. the du and re of 21212121, 2a, Four Pitch Marks.

iii. three and four pitch marks)

In section 21212111, b (Group-1 Particle), the patterns given for Interrogative forms that include the General-Interrogative Particle pas/gas/ngas are:

(1W), \((-\)-); (2W), \((-\)-); e.g. (1W), 'nā:-dzun-ε:\n
mangs-byung-ngas; 'tā:-me-dzun-ε:\n
btangs-ma-byung-ngas;

(2W), \(džo:-dug-ε:\n
'byor-!dug-gas; \(džo:-ma-sun-ε:\n
'byor-ma-song-ngas. In these examples a fall in pitch characterizes the initial Syllable of the Word (the Verb Syllable) alone; but in the Emphatic Clause both this Syllable and the final Syllable of the Word (the pas/gas/ngas Syllable) are characterized by a fall in pitch; e.g.

(1W)

Kjö: lo: thandzune:\n
khyod glog mthongs-byung-ngas.

'Did you see the lightning?' (Bell, altered).
khong gi: ji gi t'ik t'em: medzune:

khong gi[s] 'igs 'ge ciz btang ma byung nga:

'Did he not send me a letter?'

2W

kjö: dodzi l'é: lLe dronune:

hym a rdé rie gling la 'gro myong nga:

'Have you ever been to Darjeeling?' (Bell).

sambo di: gâ:le ta jö: ne, tshlé: ne, khé: tshé: mejune:

zam pa 'di'i sgang la rta bzhon nas, phyin na, ga'i byas mi yong nga:

'Is it safe to ride over this bridge?' (Bell).

In addition to having, as the final Particle of the Word, the General Interrogative Particle nas/zas/ngas, the above examples also have, as the first Particle Constituent of the Word, a member of the Group-l sub-category (21212121). It is only in Words of which the first Particle is a member of the Group-l sub-category that two Intonational possibilities are distinguished, in one of which (Non-emphatic) the final Syllable of the Word is characterized by a low and level pitch, and in the other (Emphatic) by a fall. Where,
on the other hand, the first Particle of the Word is
drawn from the Group-2 sub-category, there is only one
possibility for Interrogative forms in nas/gas/ngas: 
fall in pitch on the final Syllable (nas/gas/ngas).

212121222. Relevant Word not Prominent

When the relevant Word is not prominent, the
possible pitch patterns of Tone-One and Tone-Two Words
are the following:

Intonation 1: \[
\begin{align*}
1W & : \text{---(-----)} \\
2W & : \text{---(-----)}
\end{align*}
\]

Intonation 2: \[
\begin{align*}
1W & : \text{a. ---, b. ---, c. ---} \\
2W & : \text{--(-)---}
\end{align*}
\]

The Verb Syllable is characterized by a low and
level pitch in 1W and 2W alike; and the only possible
variation in pitch behaviour relates to the final
Syllable of the Word: a low and level pitch in
Intonation-1 Clauses (2121212221), and a rise in
Intonation-2 (2121212222). Brackets have been used to
indicate that the Intonation-1 pattern applies to Words
of anything from one to five Syllables, and the Intonation-2
in section (c), to Words of three or four (for the
relations of phonetic pitch mark and phonological
Syllable see p. 200, note 1).

From the above pitch patterns it is clear that in
all Intonation-1 Clauses and in Intonation-2 Clauses of type (c) the 1W pitch exponents are the same as the 2W. As far as such Clauses are concerned, therefore, no pitch criteria of Tones One and Two can be cited (for Tonal exponents other than pitch features see 212122).

In the material drawn on for the thesis all examples of the remaining patterns (Intonation2, a-b) are 2W examples,

212121221. **Intonation One**

Where possible, the examples chosen to illustrate Emphatic-Intonation Clauses in which the relevant Word is not prominent are, apart from Intonation, identical with examples used elsewhere to illustrate other types of Clause Intonation, both Emphatic and Non-emphatic. They are grouped under the heads: One Pitch Mark, Two Pitch Marks, etc, of which the One-Pitch-Mark section includes both Verb Words and Particle Words, the Two-Pitch-Mark section both Vb. + Particle and Particle Words, and the remaining sections Vb. + Part. Words only, e.g.
One Pitch Mark

1W

\( \eta a: sù: r'o: nài \).

ngs-la gsang-roc smag'. (Imperative Sentence)

'Please tell me.' Cf. 212121111, a, i.

2W

\( \text{phy}j\text{i}: t_o: s\text{ pho}brā: t\text{ré:mutsu}løjā: t_o: t_s \text{kāłxp r}ybu [\text{vi}]. \)

bod-viṅ tog-rtse phe-brang bbras-mo'-tsho-la[-yang
tog-rtse] bka' slob ra-po zhus.¹ (Indicative Sentence).

'I also instruct the daughters at the Palace a little in
Tibetan literature a little.'

\( \text{dini pugu dinzu garge lo: sōsu rangi phyri: tsar}mē: \)

\( \text{thulō: khōndā: re}. \)

de-ni nu-cu de-'tsho sangs-ka log so-so s trg-zi bod-[ritt] 
gtang-ma'i dog-log gon-bstang red. (Indicative Sentence).

'Next comes the way these children wear their own dress,
the dress of those of pure Tibetan stock.' Cf. 212121111, a, i.

¹bbras-mo is a phonetic spelling used here instead of
gras-mo to indicate that \( \text{R}_s \) had used a pronunciation with
initial tr rather than the probably more usual initial
s (se:mu).
All the examples so far given in this section have been of Verb Words; an identical pitch pattern has been noted for Particle Words, e.g. _vin_ in the second utterance, at (ii) below:

i. _gsungs-mama cig phul-ra-vin_ (Vb.: _phul_; Part.: _ra, vin_). 'I sang them a namthar.'

ii. _lo: leq. thago ra: ii. lo le-si. da-ga rang vin._

'Yes, so you did.'

Two Pitch Marks

1W

\[ ]

tha tshik di: ne:ne -- b@bu la:1 s@nu: n@ndu c@mba ngs:la.

da cig de'i sngas-nas -- sba-bu laq-kyi[gs] gsar-'gyur


'For a long time now Babu La has printed them in the Newspaper.' Cf. 212121111, b, Two Pitch Marks.

2W

\[ ]

ngas lhas-sa-la 'gro-gi 'gro-gi byed-kyi-vin.

'I shall keep on going to Lhasa.' Cf. 212121122, b, i.

The above pattern (low and level) seems to be usual for the second member of a reduplication not only in the Verbal Phrase but also for e.g. Adjective + Particle
Tell him to come at once!

ltags-par da-ga vin-na, yang rdo-par vin-na.

'Is it really a type press, or is it a litho press?'

In this Alternative-Interrogative example it is the contrasting of rdo-par with ltags-par that is responsible for the lack of prominence of the second example of vin-na.

The above two-pitch-mark examples are all of Vb. + Part. Words; the same pitch pattern has also been noted for Particle Words, as in the second speaker's utterance, at (ii), below:

i. bod-yig-la tsang-ni dwangs-shes byed-kyi-mi-'dug-ka
   (Vb.: byed; Part.: kyi, mi, 'dug, ka).

'They are not educated in Tibetan in the least, are they?'

ii. tsa:n mindu. tsang-ni mi-'dug.

'Not in the least.'
Three Pitch Marks

1W

---

dinzu ko:lojâ: dini thâkîy: nangidu:
deu'tsho'i skor-la[-yang de-nî] dag-zhus: smang-gi-'dug.
'She is, then, revising everything to do with these too.'
Cf. 2121212121, a, i.

2W

---

phynzo:q e: phynzo: la:jy: diŋ di jucyi:
phun-tshogs[-kvis phun-tshogs lags] brgyud-nî de-nî 'di
zhu-gi-vin.
'I will let you have it, then, by Phuntshog, er, through
Mr. Phuntshog.'

---

tha thiri: khsâ: kalâ: pû: tshawe tshase: minduqê:
da da-ring kha-sa[ng ka-lan sbug] tsha-ba tsha-sâ'i
mi-'dug-gas.
'Now Kalimpông these days --- is it not a hot spot too?'
Cf. 2121212121, 5a, ii.

Four Pitch Marks
For about how long did you work there?

Now where is he staying here?

Five Pitch Marks

Then in the end he may perhaps write a language manual there.

For further examples see Appendix III, 2121212221.

Intonation Two

A rise in pitch characterizes the final Syllable in all cases. As stated above, all the examples in section (a) and (b) are 2W.
The only Words to be recorded here are Verb Words, e.g.

\[\text{di th5: tshimbu re:} \quad \text{\text{"di mthong chen-no red.}}\]

[?] 'This is a great sight.'

The implication of this pattern is the same as that of 2121212122, a, ii: that the speaker has not yet completed his utterance.

b.

The final Particle here is either dang (General-Interrogative) or na/ga (ka)/nga (Corroborative-Interrogative); and it is this Particle Syllable that is characterized by a rise in pitch; e.g.

\[\text{phige: ndoba: rä: ri tåi:} \quad \text{pha-gí rdo-par rang red dang.}\]

'Is that really a litho press over there?'


'That, then, is your work at present, is it not?'
There is, then, that Tibetan proverb of ours, is there not?

For further section-b examples, see Appendix III, 2121212222, b.

Three Pitch Marks

Like the earlier examples in which the final Particle is >red, vin, rod, 'dug, min, or mad
(2121212122, b, ii, Three Pitch Marks), the Intonation-two
pattern here implies that the speaker has not yet completed his utterance.

Four Pitch Marks

In this section the final Particle is one of the Interrogative Particles: na/za (Corroborative-Interrogative), no (General-Interrogative); and it is this Particle Syllable that carries the rise in pitch; e.g.

1W

\[ \text{thaga:s kam}z: \text{r}y: \text{t}\text{jho:.} \quad \text{-- sy: tfho:yrib}a:. \]

da-ga'-i-se bka'-mol ra-po [zhus mchog]. zhus mchog-gi-red-na.

'We must have a spontaneous sort-of conversation. We must, must we not?'

2W

\[ \text{kh}a: \text{ts}iine \text{ph}embe r\text{y}u: \text{junyrib}a:. \]


'Some good will somehow come of it, will it not?'

For further section-c examples, see Appendix III, 2121212222, c.

A considerable number of examples has been given for the patterns in section 2121212222 (Relevant Word not
Prominent), because they occur frequently in the recorded material. They are especially appropriate to Vb. + Part. Words in which the Verb is a member of the Auxiliary sub-category; and it is in fact seldom that such a Word is characterized by a pattern other than one of those given in this section (313121223), e.g.

dega'i-se bka'-mol ra-po [zhus mchog].
'We must have a spontaneous sort-of conversation.'

de-pag -- kha-shad-kyi[s] zhe-sa taang-ni bshad
shes-kyi-wod-na-nga-red.
'Some people in this district, I think, have absolutely no idea of how to speak the Polite Style.'

thage nā:ji: tṣigi ja: tho:le jese: khandre:

'tshe agare.
dega nang-bzhin gcig-gi var thos-la zhe-sa ra-'dras[byed
dgoa-kyi-red].
'In just the same way, how you must use the Polite Style to superiors.'
2131213. Verb Word

In comparison with the complex statement required for an account of the pitch behaviour of the Grammatical Constituents of the Verb + Particle type of Word, the Verb Word presents few problems; and even these are reduced by the fact that certain Verb Words have already been dealt with in 2131212 (Verb Words that are Sentence-final, or are followed by a Sentence-final Verbal-Particle Word within the same Verbal Phrase). It is now the turn of the remainder, Verb Words immediately followed within the Verbal Phrase either by another Verb Word or by a Verb + Particle Word; and the examples are taken from both Sentence-final and non-Sentence-final Clauses.

The Verb-Word examples are grouped, like the preceding Verb + Particle-Word examples, by Clause Intonation into Non-emphatic (21312131) and Emphatic (21312132).

21312131. Non-Emphatic.

In the Non-emphatic-Intonation Clauses the pitch exponents of Tone-one and Tone-two Words are:

Tone One: high pitch;
Tone Two: low pitch.

In addition to these features, examples cannot be
uttered without a knowledge of such further International
detail as that the high, or low, pitch is also level:

\[ \text{LW, } \underline{\text{--; 2W, } \underline{\text{--; e.g.}} \]

\[ \text{di: kjængi diŋ ju:sale tʃə: thu:masu:} \]

de'i rkyen-gyi [da-ni] bzhugs-sa-la'i bear thub-ma-song.

'For that reason, then, it was not possible for me to
visit your place either.'

\[ \text{ji:ne tharәːgi sʰ:nuː di cəː tʃaɾeʃiŋe.} \]


'But did he, now, finish printing the present Newspaper?'

\[ \text{dineː nɪ kʰː tshaːni,} \]

de-nas 'di'i khang tshar-ni, - - -.

'Next, when this has been filled right up,'

\[ \text{phɔːdʒɛː khömbələ phɔːdʒɛː tʃəː ma jiːne,} \]

bod-chas gon-pa-la bod-skad rgyab ma shes-na,

'If they do not know how to speak Tibetan, in spite of
wearing Tibetan dress,'
Thanbu sphyi \gä:\le \tri:\ na\r̥bę:  [Interruption].

dang-po shok-bu'i sangs-la bris (\gmang-ba'ı ) [Interruption]

'First the --- of what you have written on the paper ---.' [Interruption].

di: \pë:\le ja:\le:se rä:\le ju: ju:ba\jı:\na:, ---  [Interruption].

dë:\i sngas-la var lhäs-sa rāng-la bzhugs bzhugs-pa-yin-na, ---  [Interruption].

'Were you living up in Lhasa itself before that, or --- [Interruption]'.

As an alternative to the level pitch a rise has occasionally been recorded for a Tone-Two Word followed by a Word with initially high pitch: \([\mathbf{21}_1]\), e.g.

din\ë:\ tha de: \tri\k̥i\ drik tsha:ne:\,

de-[nas da] 'da'ı khrigs-te [bsgrigs tshar]-ni,

'Now, next, when you have finished fixing it to it tightly,'

\(21212132\).  **Emphatic**

Here again the pitch behaviour of the Verb Word depends on whether the Word in question is \(212121321\), or is not \(212121322\), prominent.
Relevant Word Prominent.

Where the Word under consideration is prominent, the pitch exponents of Tones One and Two are as stated in the previous section (Non-emphatic): 1W, high pitch; 2W, low pitch; but there are differences in Intonation: the level pitch (with a rise as a 2W alternative) described in the preceding section has no place here, and is therefore a criterion of Non-emphatic Intonation; in the Emphatic Clause the pitch falls; and the fall in pitch may or may not be preceded by a slight rise: 1W, \, \, \; 2W, \, \, \. In addition, the pitch patterns of following, and sometimes also of preceding, Words are frequently non-prominent, and thus bring the Verb Word into greater prominence than they would if they were characterized by some other pattern. In other words, the pitch of the following Syllable is usually low and level; e.g. 1W

\[\text{hadzā: dra thagu rā: s5: thugymindu.}\]

ha-cang sgra dag-po gaunca thub-kyi-mi-'dug.

'They cannot speak with a very good pronunciation exactly.'
'Some good is going to come of it, too, somehow or other.'

'I must go and see Auntie, I thought, but'

'I have to work until eleven o'clock.'

'We must have a spontaneous sort-of conversation.'

'This climate goes and changes the temperature very quickly, you know.'
Relevant Word not Prominent

Here there are no pitch criteria of Tones One and Two and a low and level pitch (−) is an exponent of either Tone, e.g.

1W

\[ \text{thage ra: phy: t}s\text{ho:}. \]

'I must sell it you for that.' (Bell, altered.)

2W

\[ \text{thage ra: } n\text{e: ly: t}s\text{ho: } d\text{a-ga rang nras zhug mchog}. \]

'Indeed I must tell him.'

\[ \text{tsyn}d\text{ry: t}s\text{ho: thun:ne, b}r\text{tson'-grus byed thub-na}, \]

'If you can make an effort.'

The 2W examples are indistinguishable in pitch from the 2W examples in 21212131, Non-emphatic Intonation (−); they are assigned to the present section rather than to the former because of the pitch pattern of the following Word: since this pitch pattern is low and level throughout, a non-prominent pitch pattern in fact, it seems reasonable to treat the Verb Words in these examples as non-prominent also.
The pitch behaviour of the following Particle Words has already been dealt with: Sentence-final-Clause (daŋ, gro/gro, ma-myong, etc.), Non-Sentence-final-Clause ('de'i); it only remains to deal with the Negative Particle (ma/mi), which fits into neither of these two categories.

The pitch of the Negative-Particle Word is generally low and level (\(\square\)); e.g.

\[\text{tha m\textsuperscript{\textcircled{a}}j i s\text{\textcircled{\textcircled{a}}d\text{\textcircled{\textcircled{a}}za: phe: ma thu:dz\text{\textcircled{\textcircled{a}}}\}},}\]

\[\text{da ma-\text{\textcircled{\textcircled{a}}}g\text{\textcircled{\textcircled{a}}}zi g\text{\textcircled{\textcircled{a}}}el-d\text{\textcircled{\textcircled{a}}}a'i rhebs ma thub-tsang,}\]

'Now since he cannot come to tea actually,'

\[\text{\textcircled{\textcircled{a}}}\text{dinc\text{\textcircled{\textcircled{a}}}tshib\text{\textcircled{\textcircled{a}}}j u: ma nanz\text{\textcircled{\textcircled{a}}}\}},\]

\[\text{de-nas cib\text{\textcircled{\textcircled{a}}}s-b\text{\textcircled{\textcircled{a}}}z\text{\textcircled{\textcircled{a}}}wur ma m\text{\textcircled{\textcircled{a}}}nang-tsang,}\]

'Then, since he is not coming,'

\[\text{\textcircled{\textcircled{a}}}\text{n\text{\textcircled{\textcircled{a}}}ranzi: sipu ma s\text{\textcircled{\textcircled{a}}}f\text{\textcircled{\textcircled{a}}}ne:},\]

\[\text{n\text{\textcircled{\textcircled{a}}}g\text{\textcirc{\textcircled{\textcircled{a}}}a-ran\text{\textcircled{\textcircled{a}}}z\text{\textcircled{\textcircled{a}}}tshos zhe-po ma shes-na'i,}\]

'Even though we do not know much,'

'\text{ma has, however, also been occasionally recorded with a high pitch; in which case it appears more}'}
prominent than it would otherwise have done; e.g.

phö:dzé: khömbale phö:dzé: ja: ma ši:ne,
bod-chas gon-pa-la bod-skad rgyab ma shes-na,
'If they do not know how to speak Tibetan in spite of wearing Tibetan dress,'

This prominence is all the greater where the Negative-Particle Word is characterized by a fall in pitch, and the following Word by a low level pitch, as in the following Emphatic-Intonation Sentences:

le:sa: ma tshi:. jänze: tšimbejí:.

lhás-sar ma phyin. rgyal-rtsér phyin-pa-yin.
'Did not go to Lhasa. I went to Gyantse.'

phu: rang phige: ŋ tši:ʒi mi: didu: ma tıkbe:;

phug rang-zi pha-gas [a-ni] rci:ʒ[-ni] [mi'i] bde-sdug
ma tog[-pa:z],
'Through not taking into account the ultimate welfare of the people there,'

2121215. Verb + Nominalizing Particle (+ Nominal-

Phrase Particle) Word

Words of this type need to be dealt with separately from Verb + Verbal-Particle Words; for they are
comprised not in the Verbal but in the Nominal Phrase, and are therefore only exceptionally final in Clause and Sentence. Since it is the final Phrase of the Sentence-final and Non-sentence-final Clause with which Clause-Intonation pitch patterns are so much concerned, it is not possible to make for the Vb. + Nomzg. Part. Word the sort of pitch statement, in which Intonation-One and Intonation-Two patterns were distinguished, that is obligatory in the case of the Vb. + Vbl. Part. Word (2121211 - 2).

It might be thought that the pitch behaviour of the Vb. + Nomzg. Part. (+ Nom. Part.) would be sufficiently similar to that of other component Words of the Nominal Phrase for a single statement to stand for both; but this is not so: certain Vb. + Nomzg. Part. Words, in which the Particle category is represented by e.g. dus, bstang, nam, resemble disyllabic Noun Words in their pitch behaviour; others, in which this category is represented by pa/ba/nam/ra/ra, resemble Noun + Particle Words in which the Noun is monosyllabic. There are therefore no economies to be had from a combined statement; and the pitch behaviour of the Vb. + Nomzg. Part. Word is therefore dealt with separately here.
A pitch exponent of Tone-One and of Tone-Two Vb. + Nomzg. Part. Words could, as in the case of the Vb. Word and the Vb. + Vbl. Part. Word in the Non-Sentence-final Clause (2121211), be:

1W: Word-initial high pitch: \( -\backslash \);  
2W: " low " : \( -\backslash/\);  

but, in order to secure an identical pitch exponent for Tone-One and Tone-Two Vb. + Part. Words of all three types, this criterion had been abandoned in favour of the wider phrasing of necessity adopted for the Vb. + Sentence-final-Verbal-Particle Word (2121211, 21212121, 5b).  

1W: high pitch characterizing the Verb Syllable: \( -\backslash \);  
2W: low " " " " " \( -\backslash/\).  

This Verb Syllable is also characterized, whether high or low, by either a level pitch or a fall in pitch; and in order to deal with this difference two further factors must be taken into account: Clause Intonation, and category of Particle.

It has already been stated above that the two-term Clause-Intonation system comprising Intonation One and Intonation Two is not relevant to the Vb. + Nomzg. Part. Word; but the other Clause-Intonation system already stated insofar as it concerns the
Vb. + Vbl. Part Word and the Verb Word, the two-term Emphasis Intonation system, is relevant; and the stating of the pitch behaviour of Vb. + Nomzg. Part. Word must take it into account: in section 21212151 are stated those patterns which may occur in Non-Emphatic-Intonation Clauses; in 21212152 are stated those patterns which can only occur in Emphatic-Intonation Clauses. These latter patterns are restricted to Emphatic-Intonation Clauses, and therefore provide criteria of Emphatic Intonation drawn from the Vb. + Nomzg. Part. Word; the former, on the other hand, are not confined to the Non-Emphatic-Intonation Clause, and have also been recorded in Emphatic-Intonation Clauses; they therefore do not provide criteria for the Non-Emphatic-Intonation Clause. It is in this sense that the term non-Emphatic-Intonation pitch pattern is to be understood, i.e. a pitch pattern that can be an exponent of either Emphatic-Intonation or Non-Emphatic-Intonation Clause, unlike the Emphatic-Intonation, which is confined to the Emphatic-Intonation Clause.  

21212151. Non-Emphatic Intonation

Two types of non-Emphatic-Intonation pitch pattern are distinguished. In one of these (212121511) the Verb, and Word-initial, Syllable is characterized
by a fall in pitch and the Particle Syllable or Syllables by a low and level pitch; in the other (212121512) the Verb Syllable is characterized by a level pitch, and the Particle Syllables either by level or by falling pitches as stated below. The difference in pitch pattern correlates with a difference in Particle: a fall in pitch characterizes the Verb Syllable when the Nominalizing Particle is pa/ba/ga/nga/ra (Group One); a level pitch characterizes the Verb Syllable when the Particle is any other Nominalizing Particle: dus, sa, ntsis, ta, mus, long, dog/dwors, thabe, batang, yag, nyan, ngyu (Group Two).

212121511. Group-One Particle (pa/ba/ga/nga/ra)

The pitch patterns of Words of this type are:

\[ \begin{array}{ccc}
  & a. & b. & c. \\
 1W: & \backslash; & \backslash; & \backslash; \\
 2W: & \backslash; & \backslash; & \backslash; \\
\end{array} \]

a. The patterns given here apply to s-Piece examples (2121312), in which the two Syllables, Verb and Particle, have a single vowel, e.g.

Tone-One

\[ \begin{array}{ll}
  \{e\}: & \text{di.} \\
  \{t\}e\{e\}: & \text{phye-ba di} \\
\end{array} \]

'sThe fact that it dies.'

'sThe fact that he opens it.'
Tone Two

dzhurma: dini phiye: kje: dep si so: nangijimbedra.

[mdu]-mar de-ni pha-ga'i skad dobs cir bzo-ba
mang-ri-yin-pa-'dra.

'Finally, then, he will probably produce a language
manual there.'

thir[i]: de: sbygi babu la: so:dzax: ndendrf: so: na:
da-ring: 'das sab-kyi[s] sba-bu lags gsol-la'i gdan-'dren
zhus [sic; zhu-ba] mangs.

'The Sahib invited Babu La here to tea to-day.'

b. The patterns given at (b) apply (i), to s-Piece
examples (2121312) in which the Nominal-Particle
category is also exemplified as well as the Nominalizing;
and (ii), to l-Piece examples (2121312) and to g-Piece,
r-Piece, d-Piece, n-Piece, b-Piece, m-Piece and r-Piece
examples (2121311), whether or not the Nominal Particle
is also exemplified.

i. There are no Tone-One examples in the material.
It is the season for going to India these days.

'The way they have there of sort-of shouting.'

'I saw the letterpress printed by Tharchin Babu in the Lhasa area.'
Tone Two

\[ di \text{ fiːːlɛː}: \text{ thubɛː}: søːbɛ \text{ babu laːlɛ}:: \text{ thubɛː}: søːbɛ \text{ di} \] (21 Piece).

\[ [\text{di}] \text{ gzhung-las thugs-phan bzos-pa} [sba-bu lags-las thugs-phan bzos-pa] \text{ de}. \]

Vb.: bzos; Nomzg. Part.: pa.

'The fact that this has been advantageous both to the Government and to Tharchin Babu,'

\[ thudriː: mɛːbɛː: gæːlɛ, \] (21 Piece).

thugs-brel med-pa'i agang-la,

Vb.: med; Nomzg. Part.: pa; Nom. Part.: -l'i.

'- - - when you are not busy.' (Bell)

In the above examples the Nominal-Particle category has been exemplified only by -l'i; and, since the Nominalizing Particle has in all cases been pa/ba/ga/ nga/ra one pitch mark has sufficed for both Particle Syllables, e.g. ŋɛː:, ba'iː; ɛː:, pa'i. Examples have also been recorded in which the Nominal Particle has been some Particle other than -l'i, e.g. la; and an additional pitch mark has been needed,) as in section (c) below.

c. The patterns given at (c) apply to examples in which the Nominal-Particle category (la) is exemplified
Tone Two

On its striking nine. ' (Bell, altered).

Group-Two Particle (duŋ, sa, rtsis, etc.)

The pitch patterns of Words that include a Group-Two Particle are the following, in all of which the Verb Syllable is characterized not by a falling pitch, as in the previous section, but by a level pitch:

1W: ❄❄❄❄❄❄❄❄

la. ❄❄❄❄❄❄❄❄

2W: ❄❄❄❄❄❄❄❄

The two-pitch-mark patterns given in this section cover Words of two different grammatical types: (i), Vb. + Nomzg. Part., the Particle Syllable being either of the type with short final vowel (ta, sa, rgyu) or of any other type (betang, yag, nyan, rog, long, dog/dwogs/rdog, thaba); or, (ii), Vb. + Nomzg. Part. + Nom. Part., the Nomzg.-Part. Syllable being of the former type only (rgyu, sa). Which of the two section-1 patterns, (a) and (b), is appropriate to Words of these types depends on whether there is a following Word, and, if so, what is its pitch.
pattern: where there is no following Word, or where
the pitch pattern of the following Word is invariably
low and level initially, the (b) patterns apply;
where the initial pitch of the following Word is other
than this, and therefore high, whether falling or
level, then the (a) patterns apply; e.g.

a.
Tone One

-khonczą zu sundy: khā:ni, kho-nag-tsho gsungs-dus sgang-nas,
Vb.: gsungs; Nomzg. Part.: dus
"When they speak,"

Tone Two

-thy:jy: phige: kamj: judy: khā:ni,
dus-rgyunpha-gas bka':mol zhu-dus sgang-ni,
Vb.: zhu; Nomzg. Part.: dus
"Constantly, when I talked there,"

b.
Tone One

da da-rin kha-sa ['dir ka-lon spung-la] spyi-ni de
skom-sa' i 'dug-ka. Vb.: skom; Nomzg. Part.: sa;
'What a shortage there is too of this sugar here in Kalimpong these days.'

'Reading literature too.'

'Tone Two

'Now, whose — whose writing is this?'

'Is this the road to Pemionchi?' (Bell)

'What sort of road is there by the ford (lit. at the ford-existing place)?' (Bell).
2a. These three-pitch-mark patterns are appropriate to Words in which the Nomzg. Part. is not z-Piece (yag, nyan/mkhan, bstang, thabs), and in which the Nominal-Particle category (gi/gyi/gyi, gia/gvis/kvis, la/-r, nas, du) is also exemplified; e.g.

**Tone One**


da nga'-tsho'i 'dir lndon yu-na-pa-si-ti legs-sbyar
gnang-nyan-gyi sab gcig yod.

Vb.: gnang; Nomzg. Part.: nyan; Nom. Part.: gyi.

'We now have here our --- a Sahib who gives lectures at London University.'

**Tone Two**

di sge tsøne: jongøngi tshøngøc: kandzi sada: re.

'di gzhis-ka rtse-nas yong-mkhan-gyi tshong-pa'i rkang-riæ
sha-stag red.

Vb.: yong; Nomzg. Part.: mkhan; Nom. Part.: gyi.

'They are only the footprints of traders coming from Shigatse' (Bell).

The section (2a) patterns are also applicable to Words containing z-Piece Nominalizing Particles (sa, rgvyu) provided that these syllables do not, as in section (1), share a vowel with the following Particles.
Syllable, with the result that the two Syllables are phonetically monosyllabic. In the following Tone-Two example with the same pitch pattern the Nominal-Particle is exemplified twice, by la and by yang (la'i is phonetic spelling of la-yang).

\[
\text{di: kjængi ja: diŋ fu:sale: tʃa: thu:masû.}
\]

de'i rkyen-gyi yar [de-ni] bzhugs-sa-la'i bcar thub-ma-song,
Vb.: bzhugs; Nomzg. Part.: sa; Nom. Part.: la, -'i.

'For this reason, then, I was not able to come up to your place, too.'

The patterns given in section 2, both (a) and (b), are also appropriate to Words in which another Nominal Particle 'tsho, is exemplified. In such Words the Nominalizing Particle nyan must also be exemplified. The (a) patterns are appropriate to Words that precede a Word that has initial low pitch; and the (b) patterns to Words that precede a Word that has initial high pitch; e.g.

Tone One

\[
\text{jagbu re:, sù:phænu tsa:ne mindù.}
\]

yag-go [red gaṅg]-nyan-[ˈtʃo] tsang-ni mi-'dug.
Vb.: gaṅg; Nomzg. Part.: nyan; Nom. Part.: 'tʃo.
'There would not be a soul that would say "it is good".'

Further examples of all the patterns given in section 21212151 are given under the same reference in Appendix III. This has been done in order to include at least one example of a pitch pattern appropriate to each of the members of the Nominalizing-Particle category.

21212152. Emphatic Intonation

The Emphatic-Intonation pitch patterns are divided, like those of the Verb + Particle Words, into two groups: (a), patterns appropriate to Words that are prominent; (b), patterns appropriate to Words that are non-prominent.

a. Prominent-Word Patterns

These patterns have been recorded (i), for Words in which the Particle is exemplified by one of the following three members of the Group-Two category of Particle: bstang, vag, rgyu; though it is possible that the same pitch patterns may be appropriate to other members of this category too; and (ii), Words containing the Particle 'tsho.

In section 21212151 a level pitch was associated with the Verb Syllable of Words containing one of the three Particles bstang, vag, rgyu; here, in (i), a fall in pitch is associated with the Verb Syllable; in (ii), a fall
in pitch is associated with the Nominalizing-Particle Syllable \textit{nyan}, the Nominal-Particle Syllable \textit{'tsho} being low:

Tone One:

\begin{itemize}
  \item \textit{i}: \hline
  \item \textit{ii}: \hline
\end{itemize}

Tone Two:

\begin{itemize}
  \item \textit{i}: \hline
\end{itemize}

\text{e.g.}

\text{\begin{verbatim}
1: sa:be ndrige n\_n\_ju --- jo: jimben\_c.
\end{verbatim}}

\text{\textit{y}ang gaar-pa bsgrigs-ka gnang-rgyu vod-pa-vin-pa-[no].}

\text{Vb.: \textit{gnang}; Nomzg. Part.: \textit{rgyu}.}

'Would there be --- new ones for you to set up too?'

\text{\begin{verbatim}
\textit{lc:se rangi s\_t\_a: lhas-sa rang-\_gi shod-dang[sic].}
\end{verbatim}}

\text{Vb.: \textit{shod}; Nomzg. Part.: \textit{dang} [sic; for \textit{bstan}].}

'The real Lhasa manner of speech.'

\text{\begin{verbatim}
\textit{t\_j\_h\_a\_b\_i lo:pe:zu j\_i\_ne, phyag-dpe klog-nyan[\_t\_sh\_o]} vin-na\_i.
\end{verbatim}}

\text{Vb.: \textit{klog}; Nomzg. Part.: \textit{nyan}; Nom. Part.: \textit{'tsho}.}

'Being people who read books,'
Tone Two

\[ \text{dini ji:gi: ko:le dige: di kam\ø: duks juyu yos} \]
\[ \text{de-ni vig-ge'i skor-la [de-rgyas 'di] bka'-mol} \]
\[ \text{zhu-rgyu yod-se, Vb.: zhu; Nomzg. Part.: rgyu.} \]
"'Next, you will have to say this much on the subject of the written language'!"

\[ \text{dini je:se tjhet\ø: du:se re.} \]
\[ \text{de-ni zhes-sa byed-ltang[sic] 'dug-se red.} \]
Vb.: byed; Nomzg. Part.: ltang [sic; bstang]

'Next, the polite style is like this.'

b. Non-Prominent-Word patterns

Words that are non-prominent are characterized by a low and level pitch throughout, but with the alternative of a final high pitch (ii), irrespective of whether the component Syllables are Verb or Particle, Group-One Particle or Group-Two (cf. also the Vb. + Particle Word, 212121122, 212121222):

Tone One \( \text{\{}} \)
\( \begin{array}{c}
\text{1. \--(--) \}; \text{ ii. \----} \}\end{array} \)
Tone Two \( \text{\{}} \)
i. Non-rising

| phed:ge:gi kamg: sundy: khä:ni, |
| phad-skad-kyi [sic; phal-skad-kyi] bka'-smön [sic; bka'-mol] gsung-dus gang-nas, |

'When we speak the colloquial,'

| thangbu ndi khāba: lkye nābjei:ne nānzu tṣagba: drigbē nāngju. |

'Where did you first learn this, how to set up a type press?'

| djin ma: tṣi jö:ro: tṣhes, tṣhe:b, |
| de-ni [m]ar cig vong-rog byed-se, [byas-pas], |

'Then, on their saying: "Please come down",'

Three Pitch Marks

| ṇō:, sēbela:, [vod, zer-ba-la], |

'On my saying: "we have",'
ii. Rising.

This pattern has been recorded for an example that contained the Clausal Particle ni:

\[ \text{re: } \text{sebeleni, red, zer-[ba-la]-ni,} \]

Vb.: zer; Nomzg. Part.: ba; Nom. Part.: la; Cl. Part.: ni.

'On my saying: it is'.

The pitch features of the Non-Prominent Words (section b) provide no tonal criteria; which must be sought in Word-initial features (212122).

Further examples are given in Appendix III, 21212152.

212122. **Word-initial Features**

It is clear from sections 212121122, 212121222, 212121322, and 21212152 that under certain conditions there may be no Tone-One and Tone-Two pitch criteria; and 1W and 2W examples are thus, as far as any such context is concerned, tonally ambiguous from the point of view of pitch behaviour. In order to give it a tonal classification the Word concerned may then be tested in an intonational context in which there is no ambiguity. It may however not be necessary to seek the Word in a different context; for correlated with the pitch criteria of Word Tone there are certain Word-initial features; and these may establish the Tonal identity of the Word.
regardless of ambiguous pitch behaviour. The Word-initial features in question are:

1W

i. (Voicelessness + non-aspiration + \{plosion\}: p t k c ?,
    \{affrication\}: tj ts tr;)

ii. ( + aspiration + coronality): tsh sh;

iii. ( + laterality): ḫ;

iv. ( + friction + apicality): ʃ;

i.

spar-gyi-'dug (pʰ:qiduː) he is raising, increasing;
btang-gi-ma-red (tʰangimare) he will not send;
kha skom-gyi-'dug (kumqiduː) he is thirsty;
skyon-a-yod (cə:ʔajə) I do not suppose you have printed;

snag-tsha dbur-gyi-'dug (ʔu:qiduː) he mixes ink;

bcar-gyi-vin (tʃ:ʔeʃiː) I will call on;
mig btsum-gyi-'dug (tsumqiduː) he blinks;
sprad (tɾɛː) ɡos-kyi-mad [gro]

ii.

tshar-ra-vin-ma (tʰarəʃiː) has he finished;
ma tahang-bzhin (shaːʃiː) not having been completed;

iii.

lha-gi-'dug (lʰːɡiduː) he plaits;
lhag-song (law:s); there was a surplus;

iv.

hrob-kyi-'dug (ɾobqiduː) [?] it is gritty.
Word-initial features do not apply to Particle Words (dang, gro/'gro', etc.; 21121 - 7); for, as has been explained above, such Words are treated as non-tonal. Nor do these features apply to those Vb. +

The term vowel is used here, and throughout the thesis, as a purely phonetic term: a vocalic, as opposed to a consonantal, type of sound. At the Phonological Level V and C are used.
Part. Words in which the initial category in the grammatical structure of the Word is the Particle (211142; e.g. mi-'dug, a-vin-na). $^a$ja$^f$:ne, a-vin-na (Part.: $a$; Vb.: vin; Part.: na), is treated as a Tone-Two Word because it satisfies the pitch criterion of Tone Two: low pitch characterizing the Verb Syllable (21212111). The fact that this Word is characterized by Word-initial (voicelessness + non-aspiration + plosion) ($^?$) is not relevant to the Tonal classification of the Word; for this (1W) criterion is operative only in the case of Words in which the initial grammatical category of the Word is the Verb.

Since the Word-initial features (Voicelessness + non-aspiration + plosion/affrication)($p t k c \? t$ $j ts$ $tr$), etc., and (voice + plosion/affrication/friction + coronality) ($b d \$ g j d_3$ $dr z$), etc., are respectively criteria of Tone-One and Tone-Two, the Word-initial letters by which these features are symbolized may be regarded, in addition to their other functions, as Tone marks; e.g.
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<th>Tone-One Word</th>
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1. The alternative **c** applies to syllables in which the vowel quality is front and spread (e).

2. **sh** is a Fast- Tempo alternative to **tsh**; e.g. **ma tshang-bzhin**, **ma shā:fi**; cf. **tshang-song**, **tshā:s5**.
### Tone-Two Word

<table>
<thead>
<tr>
<th>Any combination of h</th>
<th>'b-'</th>
<th>sb-:</th>
<th>b</th>
</tr>
</thead>
<tbody>
<tr>
<td>(except by-, br-, bl-, db-, dby-, dbr-):</td>
<td>'by-'</td>
<td>sby-:</td>
<td>d3</td>
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<td>'br-'</td>
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<td>dr</td>
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<td>rd-, ld-, sd-</td>
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<td>'dr-'</td>
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<td>dr</td>
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<td>Any combination of g</td>
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<td>'g-', rg-, sg-</td>
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1. The alternative + applies to syllables in which the vowel quality is front and spread (ε).
The remaining Word-initial features are not correlated with Tone-One or Tone-Two pitch criteria; and do not, therefore, provide Tonal criteria; they comprise:

i. Aspiration, except + (coronality): ph th kh ch
   + alveolarity: tsh) tʃh tr;

ii. Nasality: m n ɲ ŋ;

iii. (Voicelessness + friction) (except + apicality: r): s ʃ;

iv. (Voice + laterality): l r

v. Semi-vowel articulation:

Tone One

phø:be: phabs-pas did you come;
phø:bare bros-pa-red he ran away;
thø:dʒu: mthong-byung I saw;
tha:ne: dar-na'i even if it spreads;
khanbøre khang-pa-red it was full;
khugdu: go-gi-'dug he hears;
chögi: mkhyen-gyi-'dug he knows;
che:gi: go-gi-'dug it widens;
tʃhe:du chad-'dug 'it is split';
tʃhe:fa byas-shag 'it has been done';
tgi: fo: 'khrid shog 'lead here';
tri:gi bris-kvis 'I am writing'.

Tone Two
Although the Word-initial sounds listed above (ph, th, kh, etc.) are common to both Tone-one and Tone-two Words, it does not follow that the way in which they are symbolized in the Tibetan orthography is also common to both types of Word: on the contrary, the initial ph of a Tone-One is regularly distinguished by symbol from
the ph of a Tone-Two Word, and so on right through the list. Thus, provided that a given orthographic form fairly symbolizes the LT Word for which it is used, then the Tone of that Word may be determined simply by inspection.¹ That this is so in the case of Words whose initial sounds are specifically either Tone-one (p, t, k, etc.) or Tone-two (b, d, g, etc.) has already been shown; it remains to show that the same Tone-marking principle also applies to Words whose initial sounds are common to both (ph, th, kh, etc.):

<table>
<thead>
<tr>
<th>Tone One</th>
<th>Tone Two</th>
</tr>
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<tbody>
<tr>
<td>ph-</td>
<td>b-</td>
</tr>
<tr>
<td>ph-</td>
<td>ph</td>
</tr>
<tr>
<td>phy-</td>
<td>by-</td>
</tr>
<tr>
<td>'phy-</td>
<td>br-</td>
</tr>
<tr>
<td>'phr-</td>
<td>tr</td>
</tr>
</tbody>
</table>

¹The Word mig, 'eye', for example, provides an exception. The initial m of the orthography suggests that this is a Tone-two Word, as indeed it is in Reading-Style utterances (mik); but in LT the pronunciation is 'mi:', and this pronunciation is sometimes correctly symbolized as dmig, a phonetic spelling (cf. m- and dm- below).

²sh has been recorded as a Fast-Tempo alternative to tʃh; e.g. tʃhɛ:ʃiː, ʃhɛ:ʃiː, byas-bzhin, 'therefore'.
th-, and any combination
of th: th-, mth-, 'th-
dr:-
th

kh-, and any combination
of kh: 'kh-
g-:
kh (ch)\(^1\)

ch-, and any combination
of ch: ch-, mch-
j-:
tʃh

A combination of m (except

mv): rm-, sm-, dm-
m-:
m

A combination of n:
n-, mn-, rn-, sn-
n-:
n

A combination of ng:

wng-, rmg-, dng-, lmg-, snng-
ng-:
ng

A combination of nx-

umy-, rmv-, smv-, cmv-
ny-:
p

\(^1\)The alternative ch applies where the vowel quality of the initial syllable is front and spread (ɛ).
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>$g-$, and any combination of $s$: $s$, $sr$, $gs$, $bs$</td>
<td>$z$, and any combination of $z$: $z$, $gz$, $bz$</td>
<td>$s$</td>
</tr>
<tr>
<td>$sh-$, and any combination of $sh$: $sh$, $gsh$, $bsh$</td>
<td>$zh-$, and any combination of $zh$: $zh$, $gzh$, $bzh$</td>
<td>$j$</td>
</tr>
<tr>
<td>$kl-$, $bl-$, $brl$, $sl-$, $bsl$-</td>
<td>$l$:</td>
<td>$l$</td>
</tr>
<tr>
<td>$dbr-$</td>
<td>$r$:</td>
<td>$r$</td>
</tr>
<tr>
<td>$v$:</td>
<td>$y$:</td>
<td>$j$</td>
</tr>
<tr>
<td>$dby-$, $g\cdot v^{-1}$</td>
<td>$y^{-1}$</td>
<td>$j$</td>
</tr>
</tbody>
</table>

All the Word-initial features ascribed to either the Tone-One or the Tone-Two Word are of course respectively Tone-One or Tone-Two exponents, regardless of whether they do or do not serve as $1W$ or $2W$ criteria. These exponents are:

---

1Following R. de Nebesky-Wojkowicz, *Oracles and Demons of Tibet*, 's-Gravenhage, 1956), $\text{γw}$ is transliterated $g\cdot v^-$, in order to avoid confusion with $\text{γ}$, which is transliterated $\text{γv}$.
voicelessness + aspiration/
non-aspiration + plosion/affrication

voicelessness + non-aspiration + plosion/affrication

nasality:

semivowel:

voicelessness + aspiration + plosion/

voice + plosion/affrication:

voice + friction:

tongue root:

laterality + voice:

voicelessness + friction + aspiration/

non-aspiration:

nasality:

semivowel:
In the case of three examples Tone has a syntactic function: the 1W Verbs blang, dbral, and dbral, are confined to Transitive Clauses; the 2W Verbs lang, ral, and ril to Intransitive; e.g.

Transitive.

1. (không) ja: langidu:. (không-gis) var blang-gi-’dug.
   'He lifts him up.'

2. ( " ) tjube di re:ja. (không-gis) chu-pa’di dbral-shag.
   '(He) has torn the gown.'

3. ( " ) do di ri:gidu:. (không-gis) rdo ’di dbral-gvi-’dug.
   '(He) overturns this stone.'

Intransitive.

1. khɔŋ: ja: langidu:. khong var lang-gi-’dug.
   'He gets up.'

2. tjube di re:ja. chu-pa ’di ral-shag.
   'This gown has been torn.'

   'This stone of his gets overturned.'
The Tone System is the only prosodic system that is stated for the Word; the following section (21213) deals with prosodic systems statable for the Piece.
21213. **Piece Prosodies**

Pieces comprise one, two, or three Syllables, and do not cross Word boundaries. The prosodic systems stated for the Piece are divided into four sections (212131-4) according to the type of features they deal with: 212131, associated vowel-duration, vowel-quality, and consonantal features; 212132, labial and associated features; 212133, vowel-closure features; 212134, voice, voicelessness, and associated features.

The grammatical structure of the Piece may be:

(i) Verb (Quality, 212131111, 212131121; Quantity, 21213121; Labialization, 2121321; Fronting, 2121322; Rounding, 2121323; Palatalization, 2121324; Aspiration, 212134); (ii) Verb + Particle (Quality, 212131112, 212131122; Quantity, 21213122; Labialization, 21213211; Palatalization, 2121324; Closure, 212133); (iii) Particle (Quality, 21213112, 212131113; Labialization, 2121321); (iv) Noun (some containing one, or two, Verb lexical items: Initial, 2121313; Juncture, 2121314).
There are four prosodic systems that have to do with complexes consisting of vowel-quality, vowel-duration, and consonantal features: 2121311, Quality; 2121312, Quantity; 2121313, Initial; 2121314, Juncture.

The grammatical structure of these four types of Piece is:

2121311, Quality: Verb
Verb + Particle
Particle

2121312, Quantity: Verb
Verb + Particle

2121313, Initial: Noun (some containing Verb lexical items)

2121314, Juncture: "( " " " " " " " )"
2121311. **Quality**

The Quality system is so named from the fact that it has been set up to deal with a complex of associated vowel-quality, consonant, and duration, features extending over a single Syllable or over two Syllables; e.g. in Verb Words, which are monosyllabic, (i), the vowel γ is invariably associated with a following labial stop (p'), and with no other type of consonant; (ii), Syllable-final labial nasality (m) can be associated with the vowels i, a, v, and o, but not with i, e, e, a, o, u, y, and o; (iii), long duration can be associated with the vowels i, e, e, a, o, u, o, y, and also with v and o provided that these two vowels are accompanied by nasality (i: ʒ:), but not with a, γ, or γ.'

Similarly, features of the Particle Syllable pa/ha/
ga/nga/ra (be ge ne re) can be related to features of the preceding (Verb) Syllable within the Word: ge may be preceded only by i:, a:, o:, and u:, be by ĝ', ag',

1 In 2121311, v is distinguished from i, a from a, v from o, o from u, and r from e. Short duration is indicated by absence of the I. P. A. symbols: ('full length') and • ('half length').
\[\text{dg}', \text{dg}', \text{and rz only by } i, a, v, o, e, \phi, \text{and } y;\]
e.g.
\[
\text{si:ge} \text{re } \text{gzig-pa-red } \text{he saw}; \text{sa:ge} \text{re } \text{bzhag-pa-red } \text{he put};
\text{si:ge} \text{re } \text{" } \text{" } \text{; sa:ge} \text{re } \text{" } \text{" }
\text{tsi:re} \text{ gtsir-ba-red } \text{he squeezed}; \text{ja:re} \text{ shar-ba-red } \text{it rose};
\]and so can features of the Particle Syllable \text{tsang} (dz z):
dz may be preceded by \(i, e, a, o, o, i:, e:, e:, a:\)
o:, u:, o:, y:, z by \(n, n, b', m\); e.g.
\[
\text{jidz} \text{a: } \text{sh} \text{i-tsang } \text{since it} \text{ dies}; \text{tsh} \text{e:dz} \text{a: } \text{byas-tsang } \text{therefore};
\text{junz} \text{a: } \text{vin-tsang } \text{" } \text{" } \text{is}; \text{nanz} \text{a: } \text{gnang-tsang } \text{since he gives};
\]
There are also Particle Syllables, whose features
cannot be associated with features of the preceding
Syllable but nevertheless require prosodic statement;
for the vowel-quality of these Syllables can be related
to features of vowel duration, and to the presence
or absence of nasality, e.g. long duration combines
with the qualities \(e, \epsilon, a, y, \) but not with \(i\) unless
accompanied by nasality (\(\text{\#}:\) ), and not with \(a, o, e, \epsilon,\)
a; short duration combines with \(i, e, \epsilon, y, a, o, o,\)
\(v, e, \) and \(\epsilon, \) but not with \(a;\) nasality combines with \(i, v, \)
and \(a, \) but not with \(e, \epsilon, a, y, o, z, \lambda, e, \epsilon, \).

The form of phonological analysis most suited to
dealing with sequences of phonetic features that can
be shown to be interdependent and predictable is prosodic analysis, through which all such sequences are associated, as exponents of terms in prosodic systems, with units (the Pieces) containing whatever number of Syllables is appropriate to the sequence of features.

The complexes of syntagmatically related features illustrated in the preceding two paragraphs are ascribed to Pieces comprising either one, or two, Syllables. An example of a monosyllabic Piece must also be either an example of a Verb Word; e.g. bzhugs (ʃu:) bzhugs-pa-yin-na, 'used you to live'; red (re:), 'it is'; ma 'gyur-ra [ra-po byas] (tʃhe:), 'telling them sort-of not to change', or an example of the exceptional type of Vb. + Part. Word in which the Verb Constituent is final (211142), e.g. a-yin (-jī:), 'I doubt whether it is', gas mi- 'dug (-ndu:), 'it would not matter', ma-red (-re), 'it is not'. The disyllabic Piece must also be either itself an example of a Vb. + Part. Word, e.g. phyag-phebs gnang-byung (nā:diŋ), 'good morning', a-leb-ni(le:nī), 'having got (there)', bzo-ba (so:) gnang-gi-yin-pa-'dra, 'he will perhaps produce'; or else it must be part of a Vb. + Part. Word of three or more Syllables. This last type of Piece may
be, from a grammatical point of view, either Vb. + Part., with the Verb Syllable preceding the Particle, e.g. bka'-mol gnang-bstangs-ti (naːtɑn-), 'of the way they speak', bzhugs bzhugs-pa-vin-na (juːba-), or Part. + Part., e.g. ga-re byed-kyi-vod-pa (-joːba:), 'what do you do', ga-re gsung-ti-'dugs-ga (-daːga), 'what does he say'.

The Quality system comprises eight terms: z, g, η, d, n, b, m, r; whence z Piece (zP), g Piece (gP), η Piece (ηP), etc. The exponents of these eight terms differ somewhat according to the grammatical type of Piece in which each is exemplified and, accordingly, three separate statements of exponency are made: 21213111, Main-Verb, or Auxiliary-Verb, Piece; 21213112, Verb-Complement Piece; 21213113, Particle-only Piece. 21213111. Main-Verb and Auxiliary-Verb Pieces

The first of these three statements of exponency applies to monosyllabic and disyllabic Pieces in which there is a Verb Syllable belonging to either the Main or the Auxiliary sub-category of Verb.

1 Seven of the eight terms are named, for convenience, after the rjes-'jug g, ng (whence η), d, n, b, m, and r of the Verb Syllable by which they are commonly represented in the orthography. For the remaining term the letter s might have been used on the same principle; for this term is sometimes represented by s, but, since this letter is also used to designate Shortness, one of the terms of another system (Quantity, 2121312), the letter z, which is not otherwise needed, has been assigned to it.
Phonetic criteria can be stated for seven of these terms, whereby a Piece may be identified as z, g, η, n, b, m, or r; but the remaining term, d, has no criteria. It is, therefore, only negatively that a Piece can be identified as d, from the fact that it cannot be shown to be one of the others; any such Piece is taken to be d.

Although there are criteria for the identification of all the prosodic types of Piece apart from the d; and each one of them, therefore, has at least one feature, set of co-articulated features, or sequence of features, that is peculiar to it alone, many Pieces have features and sequences of features that are not peculiar to a single term of the system but common to two or more, though not to all eight; shared features such as these are regarded as partial phonetic criteria: they serve to distinguish a particular Piece from others as being, for example, either g, or d, or r; and they thus serve to exclude the possibility of its being z, η, n, b, or m, though they do not provide grounds for identification. Those terms of the system which share a particular partial phonetic criterion clearly must also have a phonetic exponent in common; in fact there must be at least as many common phonetic exponents as
there are partial phonetic criteria.

Only the phonetic exponents of the eight terms of the Quality system are stated in the thesis, and not the criteria and partial criteria by which each is identified; but, after all the exponents have been stated, a few examples are given of exponents that are the same for more than one term, in order to draw attention to the fact that under certain conditions no criteria, but only partial criteria, can be cited for distinguishing them.

The exponents of each of the eight terms are stated first, at 21213111, with reference to the monosyllabic Piece, and subsequently, at 212131112, for the disyllabic.

212131111. Monosyllabic Piece (Verb Word)

The exponents of z, g, η, d, n, b, m, and r are the following:

z:  a. s Piece(2121312)
   i. non-Clause-final
      (short duration + the vowels i, e, a, o, u);
   ii. Clause-final
      (long duration + the vowels i, e, a, o, u);
b. 1 Piece (2121312)

(long duration + the vowels e, ε, φ, y). ¹

g:

i. (long duration + the vowels i, a, o, u);

ii. (short duration + the vowel i), (velarity + voicelessness + occlusion) (k'). ²

η:

(long duration + nasality + the vowels i, a, o, ο).

d:

(long duration + the vowels i, e, ε, φ, y).

n:

i. (long duration + nasality + the vowels i, ε, φ, y);

ii. (long duration + the vowel u), (dentality + nasality) (n). ³

¹ The difference in exponency between sections (a) and (b) is dealt with in 2121312, Quantity system, and the difference between sections (i) and (ii) in 2121323.

² A velar stop is exceptional in Interverbal Junction outside Reading-Style utterances, but has nevertheless been included here for the sake of a single example (drēk') in one of the unscripted recordings.

³ No other vowels have been noted in the thesis material. This exponent is a Fast-Tempo alternative to (long duration + nasality + the vowel i) of section (i).
b: (short duration + the vowels ɪ, ɛ, ə, ə),
(labiality + voicelessness + occlusion) (p'),
m: (short duration + the vowels ɪ, a, ə, ə),
(labiality + nasality) (m),
r: (long duration + the vowels i, e, e, a, ə, u, ə, y).

E.g.

z: a, i, ə a c ə

las-ka byad (tʃhe) dgos-kyi
[ -yod]

khrud (truo) dgos-kyi-red

ii. i: e: a: ə: u:

sgo-yol phye (tʃhe:)

zo (sco:)

b. e: e: ə: y:

bka'-mol zhus (ʃy:) mchog-gi-
red-pa

yag-po bzos (sə:)

bzas (sə:) tshar-song

g: i. i: a: ə: u:

bka'-mol zhus mchog (tʃho:)

bzhugs (ʃu:) bzhugs-pa-vin-na

'I have to work';

'he must wash';

draw the door-curtain'
(G. and R.);

'eat it';

'we must have a conversation,'
must we not';

'put it right' (G. and R.);

'he finished eating'.

'we must have a conversation';

'used you to live (in Lhasa),
'when you have set it up'.

'when you have finished filling it';

'for being able to speak a dialect like the Lhasa';

'now please give him this';

'discard their Tibetan things';

'I do not think they know how to speak';

'of what you have written';

'he is allowed to show';

'has he finished printing (this news), or ---';

'do you know' [lit. 'know'].

'he is allowed to ride';

'teach him';

'he is allowed to slice it up'.
The sole example, in the corpus of material used for the thesis, of (long duration + the vowel i) as an exponent of z is tjhiː, byis, e.g. ja pra-sris byis (tjhiː), 'get tea ready' (G. and R.); but it is probable that this exponent would also be exemplified in ra ma bzi (*siː), 'do not get drunk'.

The half-open front vowel of z (a.i) appears to be slightly closer (ɛ), than the half-open front vowels of z (b), ɐ, and r (ɛː), and of n (ɛː).

Some of the features stated above as exponents or as contained in exponents are peculiar to one or other term of the Quality system, and could therefore also be cited as a phonetic criterion of that term; z (a.i);
g (ii); ñ, except for ñː; n (i) except for ñː, and (ii); b; and m; but the remaining exponents are common to two or more terms, and therefore do not provide features that could be cited as phonetic criteria: aː, oː, uː are common to z (a.ii), to g (i) when Clause-final, and to r when Clause-final; eː, eː, æː, yː are common to z (b), to d, and to r; iː is common to z (a, ii), to g (i), to d, and to r; aː, oː, uː are common to g (i) and to r; ñː is common to ñ and to n.

Further criteria, drawn from the disyllabic Piece (212131112), could be adduced in support of the eightfold distinction made above; but the validity of this distinction has from this point onwards been assumed.

212131112. Disyllabic Piece (Vb. + Part. Word; Intraverbal Junction)

In the disyllabic Piece the exponents of each of the eight terms of the Quality system are sequences of features drawn from both the Syllables, the Verb and the Particle. The Particles concerned are the following Verbal Particles na, nae/ni, byas, bzhin, tsang, dus, ga/kag, ze/se, med/mad, yod, pa/ba/ga/nga/ra (Past),
gi(s)/gvi(s)/kvi(s), dgos/dgo/go, yong, song, byung, shag/zhas, ma/mi, 'dug, m Yong/nyung, pa/ra nga (Int.), ga/ka (Fut. Spec. Int.), shig, do, a (Imp.), ras/ra
ngas/ras, dang/da (Imp.), and all fourteen Nominalizing Particles: dus, (b) stang, va(g), nyan/mkhan, rgyu, pa/ba/ra nga/ra, sa, rog, rtsis, ta, dwogs/dog/rdog, nus, long, thabs.

The phonetic features of certain of these Particle Syllables are unaffected by the type of Quality Piece in which they are contained; but the initial consonant, or consonants (nd-, dwogs/dog/rdog), and vowels of eight others of them, on the contrary, vary. Particles of the latter type are given more prominence in statement here; in fact the exponents of z, g, n, d, n, b, m, and r are stated first, at (i), for Pieces containing these eight, and subsequently, at (2) for Pieces containing the remaining Particle Syllables. Within (1), the eight Particle Syllables are grouped as follows:

(a), pa/ba/ra nga/ra (Nomzg.), (b), pa/ba/ra nga/ra (Past), (c), ras/ra nga ras (Int.), pa/ra nga (Int.), (d), gi(s)/gvi(s)/kvi(s), (e), tsang, rtsis, (f), dog/dwogs/rdog.

Similarly, where a particular Verb has more than one type of vowel in accordance with the
type of Juncture Piece (2121314) or other prosodic
type of Piece (e.g. Quantity) in which it is contained,
each exponent is stated here, but is dealt with in
greater detail in the sections concerned with Juncture
and Quantity below.

z:  
   i. Short Piece (sP, 2121312): (long duration + the
      vowels e, e, a, ç, o);
      ii. sP: (short duration + the vowels u, e, a, ç,
          o), (labiality + plosion + voice) (b), medium
          centrality (a);¹
      iii. Long Piece (1P, 2121312): (long duration +
          the vowels e, e, o, y), (labiality + plosion
          + voice ) (b), medium centrality (a);

   e.g.
   i. e: e: a: ç: o:

      bzo-ba (sö:) gnang-gi-yin-pa-'dra 'he will probably
      produce';

      gdan-'dren zhus (jö:) gnang-song 'he invited him';²

¹For exponents (i) and (ii) see pp. 339 - 340.
²zhus is an attempt at a phonetic spelling of jö: (Vb.: zhu; Nomzg. Part.: ba).
ii. \textbf{yod zer-ba-la} (ṣębe-)
\textbf{de-dra[s] ma byed-pa} (tjhebē)

iii. \textbf{e:be e:be o:be y:be}
\textbf{thugs-phen bzos-pa} (sə:be)
\textbf{kho yag-po ma byas-pa} (tjhe:be)

'\textit{on my saying "we have"}';
'\textit{your not doing like that} (Bell);'
'\textit{his having benefited};'
'\textit{on his not behaving well};'

\textbf{g.}

i. (c.) (long duration + i, a, ə, u), (labiality + voice + plosion) (b), medium centrality (ə);
ii. (ft) (long duration + i, a, ə, u), (velarity + voice + plosion) (g), open centrality (ə);
iii. (st) (short duration + i, a, ə, u), (velarity + occlusion + voice) (g'), \begin{cases} (\text{labiality + plosion} \\ (\text{labiality + syllabicity + voice}) (b), \text{medium centrality (ə)}; \end{cases}
+ voice) (b);

\textbf{e.g.}

i. \textbf{1:be a:be o:be u:be}
\textbf{btsug[-pa]} (tsu:be)
\textbf{gmang-nga-red zer-gyis}
\textbf{bzhag-pa} (fa:be) \textbf{gmang-song}

ii. \textbf{i:gy a:gy o:gy u:gy}
\textbf{begriga-ka} (dri:gy) \textbf{gmang-song}
\textbf{bzhag-qa} (fa:gy) \textbf{gmang-nas}

'\textit{"he established it"}';
'\textit{he put};'
'\textit{he fixed it up};'
'\textit{he puts} (Bell, altered);
iii. \( \text{btsugs-pa (ts} \text{og}'p) \text{ gnang} \) 'he established';

\( \eta: \) i. (c.) (short duration + \( i, a, o \), (velarity + nasality) (\( \eta \)), (labiality + voice + plosion) (\( b \)), medium centrality (\( e \));

\( \text{(ft)} \) (short duration + \( i, a, o \), (velarity + nasality) (\( \eta \)), open centrality (\( u \))

ii. (ft) (short duration + \( a \), (velarity + nasality + syllabicility) (\( o \));\(^1\)

iii. (ft) (short duration + nasality + \( o \)),\(^1\) (nasality + open centrality) (\( i \));

\( \text{e.g.} \)

i. (c.) \( \text{btsungs-rnams gnang-nag} \) \( \text{btang-nga} \) (\( \text{tan} \eta \) \( \text{e} \)) \( \text{gnang-songs} \) \( \text{btang} \) 'he sent';

\( \text{btsungs-rnams gnang-nag} \) \( \text{btang} \) 'he spread';

\( \text{skad btang-nga} \) (\( \text{tan} \eta \) \( \text{e} \)) \( \text{gnang-btang} \) 'the way they shout';

\( \text{bsungs-rnams gnang-nag} \) (\( \text{na} \eta \) \( \text{e} \)) 'the way he sings \( \text{namthar} \)';

ii. \( \text{bzo gnang-nag} \) (\( \text{na}^1 \) \( \text{de} \)) 'the fact that he makes';

\(^1\)There are no examples of other vowels in the thesis material.
dar-khyabs [yong-ba] (j5:ʔ) 'the coming of an expansion';

d: (long duration + i, e, ε, ø, y), (labiality + plosion) (b), medium centrality (e);

e.g. i:be e:be ε:be ø:be y:be

khong phebs-pa (phe:be) dang 'on his coming';

rin ma sprad-pa-la (tre:be-) 'without paying for them' (Bell);

bris-pa (tri:be) gmang-song 'he wrote';

n: (short duration + i, e, ε, ø, y), (labiality + nasality) (m), (labiality + plosion) (b), medium centrality (e);

e.g. lmbe embe embe ymbe

mthun-pa (thymbe) 'to match';

zla-rnying gsar-pa skyon-pa (cəmbə) cig 'the one newly built last year';

gang shes-pa (ʃembe) de 'what we do know';

b: i. (short duration + i, y, ø, o), (labiality + plosion) (b), medium centrality (e);

ii. (ft) (short duration + ø),¹ (labiality + friction) (β), medium centrality (e);

¹No other vowels have been observed in the thesis material.
The De are no examples of other vowels in the thesis material.
e.g.
i.  
\[\text{phur-ba (phi:be) gmang-song}\]
\['it flew';
\[\text{bzhar-ba (sa:be) gmang-song}\]
\['he shaved';

ii.  
\[\text{[mjial-ba] (dʒε:βε) byas}\]
\['having met';

iii.  
\[\text{tsha-ra (tsharэ) gmang 'gro'i-yod}\]
\[\text{pa-no}\]
\['is he about to finish it';
\[\text{dbul-ra (ba) (byre) gmang-nas}\]
\['offer' (Bell)

iv.  
\[\text{do}\]
\[\text{ma 'gyur-ra (jər)}\]
\['not changing'.

b. Verb + Past Particle (pa/ba/ga/nga/ra)

z:

i.  
\[\text{(sP) (short duration + l, c, a, ə, ɔ)}\]
\[\text{labiality +}
\[\text{plosion + voice)} (b)\]
\[\text{medium centrality} (e)\]

\[\text{e.g.}\]

i.  
\[\text{phal-cher bzo-ba-red (sɔbə-)}\]
\['they generally make';
\[\text{phye-ba-red (tʃhəbə-)}\]
\['he opened';
ii. eːbe eːbe øːbe yːbe

yong-rgyu byas-pa-yin (tʃhɛːbe-) 'I had to come';
brkus-pa-red (kyːbe-) 'he stole';
g: i.
ii. } as for (a) above;
iii. }
e.g.
i. iːbe øːbe øːbe øːbe øːbe

aszigs-pa-red (siːbe-) 'he saw';
lhas-sa rang-la bzhugs bzhugs-pa-yin-na (ʃuːbe-) 'were you living in Lhasa itself, or - - - ';
ii. iːɡə ɡəɡə uːɡə bzhugs bzhugs-pa-red (ʃuːɡə-) 'he used to live';
bzhugs-gdan 'jags 'jags-pa-yin (dʒaːɡə-) 'she was staying';
iii. uːɡ′be øɡ′be øɡ′be øɡ′be øɡ′be

aszigs-pa-red (siɡ′be-) 'he saw';
klog-pa-red (lʊɡ′be-) 'he read';
η: i. as for (a) η (i) above;
ii. (ft) (short duration + l, a),¹ (labiality + nasality) (m)
(labiality + plosion) (b), medium centrality (ə);
e.g.
i. (c.) ʊbe øbe øbe øbe øbe

¹No other vowels have been noted in the thesis material.
'where did you learn';
'he came';
'they said'
'about how long did you (work)';
'he sent';
'he spread the carpet';

e.g.

'he wrote';
'he came to Darjeeling';
'I stayed in London';

'e.g.'

'when did it start';
'I took on human shape, did I not';
'they matched';
b: as for (a) b (i) above;

  e.g.

  hrob-pa-red (roba-)
  thub-pa-mi-dug (thoba-)
  bod-skad slab-pa-red (lxba-)

m: as for (a) m above;

  e.g.

  umbe ambe vmba omba
  gtums-pa-red (tomba-)
  zin-pa-red (smba-)
  sha bskams-pa-red (Kamba-)

r:  i. as for (a) r (i) above;
  i1. " " (a) r (iii) above;
  i. 1:be e:be e:be e:be y:be a:be o:be u:be

  bskol-ba-red (koba-)
  gtsir-ba-red (tsi:ba-)

  ii. urre are arr are arr are

  skyon tshar-ra-yin-na (tsharr-) 'did he finish printing ---, or ---';
  ga-re [zer-ba-yin-na] (ser-) 'what is that called, I wonder';

1 Examples such as tharber (dar-ba-red) are treated as spelling pronunciations.
c. Verb + Interrogative Particle (i. ras/gas/ngas/ras; 
   ii. ra/ra/nga)

z: (1P) (long duration + e, e, ø, y), (labiality +
   plosion + voice) (b), (i) (long duration + e/ø), or,
   (ii) (long duration + backness) (a:); ²

g: (long duration + i, a, ø, u), (labiality + voice +
   plosion) (b), (i) (long duration + e/ø), or, (ii),
   (backness + long duration) (a:);

η: (short duration + (l, a, ø, ø), (velarity + nasality)
   (η), (i), (long duration + e/ø), or, (ii), (short
   duration + frontness) (a);

d: (long duration + i, e, e, ø, y), (labiality + voice
   + plosion) (b), (i) (long duration + e/ø), or, (ii),
   (long duration + backness) (a:);

n: (short duration + l, e, ø, y), (labiality + nasality)
   (m), (labiality + plosion) (b), (i), (long duration +
   e/ø), or, (ii), (long duration + backness) (a:);

b: (short duration + l, ø, ø, ø), (labiality + plosion)
   (b), (i) (long duration + e/ø), or, (ii), (long
   duration + backness) (a:);

¹ No form ra has been noted in the thesis material.
² No Short-Piece (sP) forms have been noted in the material.
m: (short duration + l, a, y, ø), (labiality + nasality) (m), (labiality + plosion + voice) (b), (long duration + e/e), or, (ii), (long duration + backness) (a:);

r: (short duration + l, e, ø, y, a, y, ø), (apicality + voice + friction) (r), (long duration + e/e); e.g.

z: e:be:/a: e:be:/a: ø:be:/a: y:be:/a:

g: /a:/ i:be:/a: a:be:/a: c:be:/a: u:be:/a:

g-par bzhugs-gdan 'jag-pa (dz:i:ba:)

r-gval-rtse-la bzhugs-pas (ju:be:)

g-par bzhag-pa (ja:ba:)

y: /a: ane:/a /a: one:/a

yang ga-'dras 'mang-nga (na:ga) 'or what did he do';

rkang-thang-la 'yong-nga (ju:ne:)

yod-pa 'mang-nga (na:ne:)

d: /a:/ i:be:/a: e:be:/a: e:be:/a: ø:be:/a: y:be:/a:

Connaught Hall-la bsdad-pas (de:be:) 'did you stay at Connaught Hall';
rgyal-rtse-la phebs-pas (phe:be:) 'did you come to Gyantse';

ga-nas phebs-pa (phe:ba:) 'where have you come from';

n: imbe:/a: embe:/a: ombe:/a: ymbe:/a:

ga-pa phyin-pa (tʃhumba:) 'where did you go';

b: ibe:/a: xbe:/a: obe:/a: obe:/a:

gé rgvab-pas (jʃbe:) 'have you swept' (Bell);

m: ombe:/a: ambé:/a: ŋmbé:/a: ombé:/a:

thag-pas bsdams-pas (dambe:) 'did you tie it with rope';

r: ire: ere: ore: yre: are: vre: ore:1

rtswa-chag vag-po ster-ras (tɛrɛ:) 'did you give plenty of grass and grain' (G. and R., altered);

chu skol-ras (kɛrɛ:) 'did you boil the water';

d. Vb. + Non-Past Particle (骺/骺/_buckets)

z: (short duration + i, ə, ø), (i), (velarity + plosion + voice) (ɡ), the vowels i, e, y; (ii), (ft), (velarity + friction + voice) (ɣ), the vowels i, e, y; or (iii), (ft), (velarity + occlusion/friction + voice + syllabicity) (ɡ/ɣ);

g:(long duration + i, ə, ø, u), (i), (velarity + voice + plosion) (ɡ), vowel (u/ə/y); or, (ii), (ft), (velarity + voice + friction + syllabicity) (ɣ);

1There are no examples of the Special-Interrogative Particle pa/ga/nga/ra for this type of Piece in the thesis material.
\( \eta: (\text{short duration} + \text{i}, \text{e}, \text{o}, \text{u}), (\text{velarity} + \text{nasality}) (\eta),
\text{(velarity} + \text{voice} + \text{plosion}) (g), \text{vowel (i/e/y)}; \)

\( \text{d: (long duration} + \text{i}, \text{e}, \text{o}, \text{y}), (\text{velarity} + \text{voice} + \text{plosion}) (g), \text{vowel (i/e/y)}; \)

\( \text{n: (short duration} + \text{i}, \text{e}, \text{o}, \text{y}), (\text{velarity} + \text{nasality}) (\eta),
\text{(velarity} + \text{voice} + \text{plosion}) (g), \text{vowel (i/e/y)}; \)

\( \text{b: i. (short duration} + \text{i}, \text{e}, \text{o}, \text{y}), (\text{labiality} + \text{occlusion} + \text{voice}) (b), (\text{velarity} + \text{plosion} + \text{voice})
\text{(g), vowel (i/e/y)}; \)

\( \text{ii. (w Labiality Piece, 21213212, only) (ft), (long}
\text{duration} + \text{u, o,}), (\text{velarity} + \text{voice} + \text{plosion}) (g),
\text{vowel (y)}; \)

\( \text{m: i. (short duration} + \text{i}, \text{e}, \text{o}, \text{y}), (\text{labiality} + \text{nasality})
\text{(m), (velarity} + \text{plosion} + \text{voice}) (g), \text{vowel (i/e/y)}; \)

\( \text{ii. (ft), (short duration} + \text{a}, \text{(velarity} + \text{nasality})
\text{(\eta), (velarity} + \text{plosion} + \text{voice}) (g), \text{vowel (l)}; \)

\( \text{r: (long duration} + \text{i}, \text{e}, \text{o}, \text{y}, \text{a}, \text{o}, \text{u}), (\text{velarity} +
\text{plosion} + \text{voice}) (g), \text{vowel (i/e/y)}; \)

\text{e.g.}

\( \text{There are no examples of other vowels in the thesis material.} \)

\( \text{Examples such as \eta gjørgundu:, 'gyur-gyi-'dug, are treated as spelling pronunciations.} \)
1. \( \text{ug} \ \text{ge} \ \text{ag} \), etc.

\( \text{za-gi-man} \ (s\text{ag}i-) \)

\( \text{las-ka byed-kyi-yod} \ (t\text{sh}i\text{gi}-) \)

ii. \( \text{ug} \ \text{ge} \ \text{ag} \), etc.

\( \text{ga-re byed-kyi-yod-pa} \ (t\text{sh}i\text{yl}-) \)

iii. \( \text{ug} \ \text{g} \ \text{g} \ \text{g} \)

\( \text{spread ggos-kyi-mad} \ [\text{gro}] \ (g\text{og}-) \)

\( \text{di-'dras zer-gyi-'dug} \ (s\text{iy}-) \)

\( \text{g:} \ 1. \ i:q \ \text{ge} \ o:q \ u:q \, \text{etc.} \)

\( \text{byugs-kyi-yod-na} \ (t\text{sh}{u}qy-) \)

\( \text{tshogs-kyi-ma-red} \ (t\text{sho}:q1-) \)

ii. \( \text{vy} \ \text{yg} \)

\( \text{ga-bar bzhugs-[gan} \ \text{d}z\text{ag-gi-]yod-na} \ (d\text{z}i:y-) \)

\( \text{n: } \text{ung} \ \text{ng} \ \text{ong} \), etc.

\( \text{thugs phams-po gnang-gi} \ (n\text{ng}i) \)

\( \text{gting-gi-'dug} \ (t\text{ung}i-) \)

\( \text{mi gcig-ka ra-po yong-gi-'dug} \ (\text{jongy}-) \)

'I will not eat';

'I work';

'what are you doing';

'they have not got to give, I suppose';

'that is what they say';

'do you apply it, or — — — ? '

'they will not assemble';

'where does he stay';

'he is sorry';

'he spreads'

'it comes out sort-of different';

\( 1 \text{Except in a careful style the exponent of the vowel of the Syllable } \text{gi/gvi/kyi} \text{ varies in association with differences in the labial features of the Verb Syllable (lip-rounding, lip-spreading, etc.; Labialization system, 2121321). The various exponents are not given in full here, but are indicated by 'etc.'}. \)
d:  
\[\text{1:gi e:ge y:gy, etc.}\]
\[\text{ga-tshad thad-kyi-yod-na \(\text{(the:ge-)}\)}\]
\[\text{bris-gis bris-gis \(\text{(tri:gi)}\)}\]
\[\text{byas-na[s]}\]
\[\text{'how long is it since'}\]
\[\text{'after writing and writing'}\]
\[\text{'it will probably reach here'}\]

n:  
\[\text{shes-kyi-med \(\text{(sin:gi-)}\)}\]
\[\text{nyan-gyi-mi-’dug \(\text{(nengi-)}\)}\]
\[\text{’bu ’thon-gyi-’dug-gas \(\text{(thyngi-)}\)}\]
\[\text{’I do not know'}\]
\[\text{'he will not listen'}\]
\[\text{'Have you got worms' \(\text{(G. and R.)}\)}\]

b:  
\[\text{ib’gi yb’ge nb’gi ob’gy, etc.}\]
\[\text{gsed-kyi-’dug \(\text{(sib’gi-)}\)}\]
\[\text{ga-’dras-se slab-kyi-[red] \(\text{(1xb’ge-)}\)}\]
\[\text{’how will they teach you'}\]
\[\text{'he sorts (wool')}\]
\[\text{'he will not listen'}\]
\[\text{'Have you got worms' \(\text{(G. and R.)}\)}\]

m:  
\[\text{umgi amge amy, etc.}\]
\[\text{tshems-kyi-’dug \(\text{(tshumgi-)}\)}\]
\[\text{bsam-gyi[s]samgi}\]
\[\text{’I think'}\]
\[\text{'he thinks'}\]

r:  
\[\text{1:gi e:ge s:gu y:gy \(\text{\& e o:gy u:gy, etc.}\)}\]
\[\text{ster-gyi-vin \(\text{(te:ge-)}\)}\]
\[\text{’I will give'}\]
\[\text{'he gives'}\]
\[\text{'I will visit'}\]
\[\text{phul-gyi-’dug \(\text{(phy:gi-)}\)}\]
\[\text{bsam-gyi-vin \(\text{(ts\&:ge-)}\)}\]
e. Vb. + Non-Sentence-final-Clause Particle (tsang)
" + Nominalizing Particle (rtsis)

\[z\]: i. (LP), (tsang), (long duration + \(\epsilon\), \(\varepsilon\), \(\varnothing\), \(y\)), affrication (dz);

ii. (SP), (tsang, rtsis), (short duration + \(\lambda\), \(\varepsilon\), \(a\), \(\lambda\), \(\varnothing\), affrication (dz);

g: (long duration + \(i\), \(\lambda\), \(\varnothing\), \(\varepsilon\), \(\varnothing\), \(y\)), affrication (dz);

\[\eta\]: (short duration + \(\lambda\), \(\varepsilon\), \(\lambda\), \(\varnothing\), (velarity + nasality) (\(n\)), friction (z);

d: i. (long duration + \(i\), \(\varepsilon\), \(\sigma\), \(\varnothing\), affrication (dz);

ii. (ft), (long duration + \(i\), \(\varepsilon\), \(\sigma\), \(\varnothing\)), friction (z);

\[n\]: (short duration + \(\lambda\), \(\varepsilon\), \(\sigma\), \(y\)), (nasality + alveolarity) (\(n\)), friction (z);

\[b\]: (short duration + \(\lambda\), \(\varnothing\), \(\varepsilon\), \(\varnothing\), (labiality + occlusion) (\(b\)), friction (z);

\[m\]: (short duration + \(\lambda\), \(\varepsilon\), \(\varnothing\), \(\varnothing\), (nasality + labiality) (\(m\)), friction (z);

\[r\]: (long duration + \(i\), \(\varepsilon\), \(\varnothing\), \(y\), \(a\), \(\lambda\), \(\varnothing\), affrication (dz);

e.g.

\[z\]: i. e:dz \(\varepsilon:dz \varnothing:dz y:dz\)

byas-tsang (tʃhɛ:dzʌ:) 'therefore'

'khrud-tsang (try:dzʌ:) 'since he washes'
I am about to make';
'since it dies';
'since (her age) is too great';
'since he stays';
'since they do not understand';
'since he drinks';
'since he writes';
'since you know';
'since he knows';
'since you cannot do it;
'since he teaches';
'since he catches';
'since he tries';
'since he does not give';
'since he offers';
f. Vb. + Nominalizing Particle (dog, rdog, dwogs)

z: (short duration + o),¹ (dentality + nasality) (n),
(dentality + plosion) (d);

g: {No examples in the material.

η: }

d: (short duration + o),¹ (dentality + nasality) (n),
(dentality + plosion) (d);

n: }

b: {No examples in the material.

m: }

r: }

e.g.

z:  snd

'gro-rdog (drondo:) kha-po red 'I may perhaps have
to go' (G. and R.);

d:  ønd

mchod-dwogs (t∫hendo:) kha-po red 'perhaps he drinks'.

2. further Pieces (p. 314)

Apart from the above special cases, the exponents of
z, g, η, etc. are the following:

z: i. sp: (short duration + i, e, a, o, 0), consonant
(0), vowel (v); ²

¹No other vowels have been noted in the thesis material.

²C and V symbolize, respectively, consonantal and vocalic
types of articulation, with non-syllabic vowels symbolized,
for this purpose, by C.
ii. 1P: (long duration + i, e, ε, θ, γ), consonant (C), vowel (V);

g:  

i. (st) (short duration + i, a, ν, θ), (velarity + friction + voice) (γ), vowel (V);

ii. (st) (short duration + i),¹ (velarity + palatality + voice) (g), semi-vowel/nasality (j n);

iii. (st) (short duration + i, θ),¹ (velarity + nasality) (η), nasality (n);

iv. (long duration + i, a/∧, ϝ/θ, μ), consonant (C), vowel (V);

η:  

i. (long duration + nasality + i, a/∧, ϝ, θ), affrication/nasality/friction/laterality/semi-vowel/glottality (dʒ m n η sʃ r l j γ θ), vowel (V);

ii. (short duration + i, a/∧, ν, θ), (nasality + velarity) (η), plosion (d g);

iii. (ft) (short duration + a, ν, θ),¹ (nasality + palatality) (n), affrication (dʒ);

dentality) (n), plosion (d);

d: (long duration + i, e, ε, θ, γ), consonant (C), vowel (V);

¹No other vowels have been observed in the thesis material.
²Exponent (i) is probably, and exponents (i) and (ii) are possibly, based on spelling pronunciations. If so, they should be withdrawn; and the present exponent (iv) would then stand as the sole g exponent in section (2).
n:  i. (long duration + nasality + i, e, o, y),
    affrication/nasality/friction/laterality/semi-vowel/
    glottality (dʒ m n p s ʃ r l j ɥ ɻ), vowel (v);
  ii. (short duration + i, e, o, y), (nasality +
    (velarity) (ŋ), plosion (ɡ);
    (dentality) (n), plosion (d);
    (st) palatality) (ɲ), affrication (dʒ);
    alveolarity (n), affrication (dr);

b:  i. (ft) (short duration + ʋ, ɹ, ʋ, ɔ), (labiality +
    nasality) (m), nasality (m n p);
  ii. (short duration + i, ɹ, ʋ, ɔ), (labiality +
    occlusion + voice) (b'), nasality (m, n, ɲ)/plosion
    (d, ɡ)/affrication
    (dʒ)/(friction + {voice} (r)
    /semi-vowel (j);
  iii. (st) (short duration + i, ɹ, ʋ, ɔ), (labiality +
    occlusion + voicelessness) (p'), (voicelessness + friction)
    (s ʃ);
  iv. (ft) (short duration + ɹ),¹ (labiality + voice
    + friction) (β), (friction + velarity + voice) (ɣ);

m: (short duration + i, a/ʌ, ʋ, ɔ), (labiality + nasality)
    (m), consonant (c);

¹ No other vowels have been noted in the thesis material.
r: (long duration + i, e, ə, y, o, u),
   consonant (C), vowel (V);
   e.g.

z:  i.  1CV eCV aCV əCV oCV wCV

   'gro-ba'i (drówe:) dus
   ra bzi-nas (sunɛ:)
   ii.  e:CV e:CV ə:CV y:CV
   skies-byas (ce:d3ɛ)
   byas-na (tʃhɛ:ne)

   'the time for going' (Bell);
   'having got drunk';
   'having originated';
   'in that case';

   g:  i.  yɛʃ/s əyɛʃ/s ɪŋɛʃ/s; ɪk's/s, etc.
   bagrīgs-shag (drɪʃja)
   bagrīgs-sa (drɪk'se) de
   ii.  uɡj/n
   'grīgs-wong (drɪgjɔ)
   chibs-rags bagrīgs-nas (drıɡne)
   iii.  ʊɡn əɡn
   glog 'khvugs-nas (kʃjɔme)
   iv.  1:CV e:CV ə:CV o:CV ɔ:CV u:CV

   'it has been got ready';
   'this place where it joins'
   'it would be all right';
   'in single file' (Bell);
   'when lightning flashes';

   klog-nyan-'tsho (loːnɛ:za)
   chag-'dug (tʃhɔ:du)
   'people who read';
   'it is broken' (G. and R.).
mthong-byung (thʊː:dʒʊŋ)
 phyag-las ‘man’-nyan (nɑː:nɛː)

nyi-ma ring-dus (rʊndyː)
 chibs-bsgyur ‘man’-dgos (nɑŋɡo)

chibs-bsgyur ‘man’-byung-ngas (nɑŋdʒʊŋ政法)

‘I saw’;

‘someone who works’;

‘when the days get long’;

‘good bye’;

‘did he come here to you’;

‘when we speak’;

‘it was not decided’;

‘cattle-dung is mostly used’ (Bell);

‘good bye’;

‘we have not, I suppose, printed’;

‘going at two o’clock’;

1 N symbolizes (nasality + oral occlusion) (m n p); the alternative features to affrication and (nasality + oral occlusion), i.e. friction (s ʃ r), laterality (l), semivowel (j), glottality (?), are indicated by ‘etc.’.

2 P symbolizes plosion (b ɗ g).

3 For N, and ‘etc’, see Note 1 above.
336.

ii.  "to be printed';
's did you know';

skyon-ngyu (cyngjā)
mkhyen-bvung-ngas (k̹eŋｂgā)

khebs-na (khṃmē)
btsugs thugs-na (thāṃnē)

'if it should spread';
'if he can establish'

ii.  'however many you do print';
'please teach';

ga-tshad rgyag-na'i (j̹bne)
slab-rog (l̹brom) sngāng

'please teach';
'

lab-shig (l̹bpi)
hrob-song (g̹rpmā)

'tell him';
'

iv.  ℝβγ

'what am I to say';
'

gā-re lab-ka (l̹βyā)

'm the man who catches' (Bell);
'

m:  umC amC vmC amC
zin-mkhan (sumēː)

's a place where there is a shortage too';
'

skom-sa'i/dkon-sa'i (k̹msēː)¹

' I thought';
'

bsam-bvung (samgā)

¹The spelling dkon-sa'i is that of the rough copy of the transcription made from the recording; in the fair copy the phonetic spelling skom-sa'i has been substituted for it (cf. dkon-po (k̹omba), 'rare').
A number of examples of the Quality Piece have been excluded on the grounds either that they are not LT, or that they are spelling pronunciations. Some of these examples, if included, would require changes to be made in the exponyency of the b and the m Piece.

(Short duration + \( \nu, \eta, \upsilon, \omega \), but not \( \varepsilon \)) appears as part of the exponents of b; \( \varepsilon \) has nevertheless been noted in Pieces that would otherwise be identifiable as b under several b-Piece criteria: lteb (d\( \varepsilon \)p) chog-\( g\_i \)-'dug, 'he is allowed to fold it'; 'deb-\( k\_vi \)-'dug (d\( \varepsilon \)bg\( \_\)ndu:), 'he sows'; 'geb-pa (gj\( \varepsilon \)be), 'to cover', and 'geb (gj\( \varepsilon \)p) gnang-song, 'he covered'. The corresponding LT forms are ltab-\( rts\_\q\_\i \)=rgab-pa, 'to fold'; btab-\( k\_\v\_i \)-'dug (t\( sb\_\q\_\i \)=du:), 'he sows'; bkab-pa (k\( \_\v\_e \)), 'to cover'; bkab (k\( \v\_p \)) gnang-song, 'he covered'; \( \varepsilon \) is not exemplified in any of these, and is excluded from the exponents of the b Piece.

Somewhat similarly, (short duration + \( \nu, \alpha, \lambda, \upsilon, \omega \), but not \( \varepsilon \)) appears in exponents of m. R. was, however,
willing to accept the forms *nzëmbère* and *tshëmbère* as infrequent alternatives to *zumbère*, 'dzems-pa-red, 'he refused', and *tshumbère*, *tshems-pa-red, 'he sewed'; but, since there are no other examples of *e* in an m Piece apart from these two doubtful forms, *nzëmbère* and *tshëmbère* are treated as spelling pronunciations, and excluded from LT.¹

The exponents of the terms *g, η, d, n, b, m,* and *r* are the same for Pieces of the grammatical type *Vb. + Nomzg. Part. (pa/ba/ga/nga/ra) (1. a)* as they are for Pieces of the type *Vb. + Past Part. (pa/ba/ga/nga/ra) (1. b)*, and so too are the exponents of *z* in the Long Piece (1. a. iii and b. ii). In the Short Piece the exponents of *z* given at (1. a. ii) are also the same as those given at (1. b. i); but those given at (1. a. i) have no correspondingly identical exponents at section (b); and it is for this reason that it is necessary to make separate statements of exponents for these two grammatical types of Piece (a, b).

The *z* exponents given at (1. a. i) differ

¹ *zumbère* and *tshumbère* can be shown to be m-Piece, and not n-Piece, examples from the lexically comparable forms *zungédū*, 'dzem-gyi-‘dug, 'he refuses', and *tshungédū*: *tshem-gyi-‘dug, 'he sews' (cf. m exponent 1. d. above).
considerably from all the other exponents in (a),
including other (l. a. ii, iii), in that
this type of Piece, although treated as phonologically
disyllabic, is phonetically monosyllabic, and has only
one vowel, in the features of which (e:; e:, a:, o:, o:)
the exponents of the appropriate terms of both Quality
system (z) and Juncture system (q, p. 525), and the e term
of the Labialization system statable for the Particle
Syllable (ba), are to be sought. All the other
exponents are drawn from phonetically disyllabic
Pieces, and, with few exceptions (g (iii): btsugs-pa,
tsogp; q (ii): ghang-nga, naq; r (iv): 'gyur-ra, (qor),
contain two vowels: e.g. z (a. ii): byed-pa (tshëbe),
'to do'; z (a. iii): zhus-pa (fy:be), 'to have
requested'; with g (a. i): btsugs-pa (tsu:be), 'to
establish'; cf. z (a. i): shi-ba (fe:), 'to die',
phye-ba (tshë:], 'to open', zhu-ba (fo:], 'to request'.

The two Short-Piece sets of exponents of the z
Piece (l. a. i and ii) are not in free variation:
the latter exponents (ii) are obligatory for Pieces in
which certain Verbs are exemplified; for Pieces
containing other Verb Syllables, they were described by
R. as rare alternatives to corresponding exponents
given at (i). These rare alternatives include tshëbe,
söbe, and fo:be, beside the more common tshë:], phye-ba,
'to open', so:, hzo-ba, 'to make', and jo:, zhu-ba, 'to request', in all of which one of the vowel letters (i, e, a, o, u) is final in the Verb Syllable, and b is therefore initial in the Particle Syllable. One of the rare alternatives, though with the spelling 'phyes-pa, not phye-ba, has, even so, been noted in a text transcribed from an unscripted recording: kha 'phyes-pa (tšhe-ba) gnang, 'he opened'.

Pieces in which only the z exponents given at (I. a. ii) have been observed include all those in which the Verbs byed, zer, and khrud are exemplified, e.g. ma byed-pa (tšhe-ba), 'not to do'; zer-ba-la (sê-ba-), 'on saying'; khrud-pa (tšo-ba) gnang-song, 'he washed'. In two of these examples d is final in the Verb syllable and p is therefore initial in the Particle syllable; it may well be that these orthographic features correlate with the exponents given in (a. ii) while the orthographic features mentioned in the preceding paragraph correlate with the exponents given in (a. i).

In all types of Short-Piece z Piece (zs P) other than the Vb. + Nomzg.–Part. (pa/ba/ga/nga/ra) there is no difference in exponency between Pieces containing e.g. the Verb Syllables byed and khrud, on the one hand,
and Pieces containing e.g. the Verb Syllables phye, 'open', and zhu, 'request' (zer has several alternative r-Piece forms); e.g.

khru-kvi-’dug (tragi-)
zhu-gi-’dug (jogi-)
las-ka byed (tjhe) dgos-kvi[-vod]
phye (tjhe) chog-gi-’dug
zer-na (sene)
phye-na (tjhenoe)

'he washes';
'he asks for';
'I have to work';
'he is allowed to open';
'supposing that';
'if you open'.

There are two exceptions to z exponent (1. b. i): in Pieces of the type Vb. + Vbl. Part. (pa/ba/ga/nga/ra) in which the Verb is exemplified by ’gro (Auxiliary) or by dgos (with phonetic spellings dgo and go), this exponent is not (short duration + o), (labiality + voice + plosion) (b), medium centrality (e), e.g. *drobe-, *goe-, but (long duration + o), e.g.

chibs-bsgyur smang ’gro’i-vod-pa-red (dro:-) 'he was about to go, I think;
sleb ’gro’-dug (dro:-), 'he has nearly reached' (Bell);

lha-sa rang-gi mi cig dgos-pa-vod (go:-) 'it is essential that he should be a Lhasa man (Bell);
rde’u bcu tham-pa dgos-[pa-]red (go:-) 'I want ten cartridges' (G. and R., altered);
rta dgos-[pa-]ma-red (go:-) 'I do not require a horse' (G. and R. altered):

This exceptional exponent is identical with z exponent (l. a. i).

A further exception concerns Pieces in which the Verb is exemplified by bsgrigs or 'grig. In g exponents (l. a. ii) (Vb. + Nomzg. Part., pa/ba/ga/nga/ra) and (l. d. i, ii) (Vb. + Vbl. Part., gi/gvi/kvi) long duration combines with i; but where the Verb Syllable was bsgrigs or 'grig, the features invariably noted in all R.'s unpremeditated utterances were not these but (short duration + l), e.g.

bsgrigs-ka (drug) snang-rgyu 'things for you to set' (l. a. ii);
sgrigs-kvi-'dug (drug-) 'he fixes it' (l. d. i);
[ 'grig]-gi-ma-red-pa (drug-) 'it will not do' (l. d. ii)

The exponents in these last two examples are the same as those of z (l. d. ii, iii); but in all other grammatical types of Piece, the behaviour of the Syllables bsgrigs and 'grig conforms to that of Verb Syllables in the g Piece.

It is at first sight a little surprising that (velarity + plosion) (g) should not be a feature of g exponent (l. c), in Words of the type Verb + Interrogative
Particle pa/ga/nga; there is no g-Piece form *dʒa:ga in, for example, bzhugs-gdan 'jag-pa (dʒa:ba:) (Main Verb), or *ja:ga in ga-par bzhag-pa (ja:ba:) (Main Verb), to correspond to the -ŋa of napa (gnang-ŋa) in the ŋ Piece. Possibly the reason for this absence of (velarity + plosion) (g) followed by (frontness + short duration) (a) is that these features are avoided so that there may not be any confusion between these forms, containing the Past Interrogative Particle pa/ga nga, with forms containing the Future Interrogative Particle ga/ka: the two forms would otherwise be homophonous; and, for example, thugs yun ring-thung ga-tshod bzhugs-gdan 'jag-ga (dʒa:ga), 'how long shall you stay', would then be phonetically indistinguishable from thugs yun ring-thung ga-tshod bzhugs-gdan 'jag-pa (dʒaiba:), 'how long did you stay'.

If the various exponents of the eight terms of the Quality system are compared, it will be seen that certain of them are common to two or more terms. Thus, (long duration + e, e, o, y), (labiality + voice + plosion) (b), medium centrality (ə) appears among the exponents of g (1. a. ii; 1. b. ii), of d (1. a; 1. b), and of r (1. a. i; 1. b. i): e:be e:be o:be y:be.

In fact all the exponents of d are shared with at least
one other term.

It may be mentioned in passing that the Tibetan orthography provides a good, though not an infallible, guide to the eight types of Quality Piece. If it were not so, there would have been no point in using letters based on the rjes-'jug g, ng, d, etc. to designate terms in the Quality system. A z Piece is regularly indicated by (orthographic) Syllable-final a, i, u, e, o, i, or s in the Verb Syllable, e.g. zhu-ba, 'to ask for', dga'-yong, 'you would do better to', zhus, 'they asked for';¹ a g Piece by final g or gs; an n Piece by final ng or ngs, a d Piece by final d, an n Piece by final n, a b Piece by final b or bs, an m Piece by final m or ms, and an r Piece by final r or l; but, exceptionally, a z Piece may be symbolized by final d in the Verb Syllable, e.g. tro-gi-, 'khrud-kyi-'dug, 'he washes', tshug-i-, byed-kyi-'dug, 'he does', by r, e.g. su-gi-, zer-gyi-'dug, 'he says', by h, e.g. sa-gi-, srub-kyi-'dug, 'he churns'; a g Piece by final b, e.g. rgyab (joi:) ma shes-na, 'if they do not know how to speak'; an n Piece by m(s), e.g. sro-ba-, shumspa-red, 'he peeled'; a d Piece by bs, e.g. phe:be-, phebs-pa-red, or by s, e.g. phy:qi-, bus-kyi-'dug, 'he blows on'; an n Piece by s, e.g. suggi-,

¹The s referred to here is not the yang-'jug but the rjes-'jug.
shes-kyi-mad, 'I do not know', by ngs, e.g. sems
gyungs-pa-red (jemba-), 'he was distracted'; a b
Piece by d, e.g. sibgi-, gshed-kyi-'dug, 'he sorts';
an m Piece by n, e.g. sumgi-, zin-gyi-'dug, 'he
catches', kemsê, dkon-sa'i, 'a place of scarcity too',
by ng(s), e.g. drongs-pa ma mtshungs (tshom), 'please
do not be angry' (Bell), tshoms5, mchongs-song, 'it
jumped'; and an r Piece by -u, e.g. jarz-, bzhu-ba-red,
'it melted', and by d, e.g. bgrad-mo bgrad-pa-red (gjarz-),
'he laughed', (G. and R.).

With few exceptions it is the case that a given
Verb is associated with, and can be exemplified from,
a single prosodic type of Quality Piece, with the
result that any such Verb can be classified as e.g.
a z-Piece (zP) Verb, a g-Piece (gP) Verb, an n-Piece
(nP) Verb. To classify a Verb as zP, then, means
that examples of the Verb so classified are limited to
the z Piece, just as classifying a Verb as Tone-One
(1W) means that it is limited to occurrence in Tone-
One Words.

This classifying of Verb Syllables by the type of
Quality Piece in which they are exemplified is
particularly important in the case of the d Piece and
therefore of dP Verbs; for the d Piece is the only
type of Quality Piece that has no criteria but only partial criteria. These partial criteria serve to distinguish a d Piece from an e, an n, a b, and an m, but not always from a z or a g, and never from an r, Piece. The d Piece can be established only negatively, as not containing a zP, gP, or rP Verb Syllable, and therefore as being not z, g, or r, but d. Thus, the Piece ce:dze, skyes-byas, 'having originated', is identified as z, because ce:, skyes, is one of the two forms of the Verb skye/skyes, alternating with ce/cl, e.g. cuqere, skye-gi-red, 'they grow', which is identifiable as an example of the z Piece under a criterion based on exponent (l. a. i); and this classification is extended to the form ce:, skyes (cf. also jo/jy:, zhu/zhus, 'ask for'; so(so)/se:, bzo/bzos, 'make', sa(sa)/ce:, za/bzas, 'eat'; Quantity system, 2121312). The ambiguous Piece ce:dze can, therefore, be classified only by reference to another Piece in which the same Verb is exemplified in an unambiguous form (cuge-). The same procedure is responsible for the classification of si:be-, gzigs-pa-red, 'he saw', as an example of the g Piece: the Verb gzigs is also exemplified in the alternative ft form si:qe-, gzigs-pa/ga-red, 'he saw', which can be identified
as a g Piece under a criterion based on the features stated as exponents (1. a. ii) and (1. b. ii), whence gzigs is considered to be a gP Verb, and si: bere, in which the gP Verb gzigs is exemplified, is also taken to be an example of the g Piece.  

\[ \text{d}3\text{e:be-}, \text{mial-ba/ra-red}, \text{'he met'}, \text{and ts}i:be-\text{, gtsir-ba/ra-red, 'he pulled out'}, \text{alternate with ft forms d}3\text{e:rev- and ts}i:rev- \text{respectively, both of which are rP examples under a criterion (i), based on the features stated as exponents (1. a. iii/iv), d}3\text{e:be- exemplifies the rP Verb mjal, and ts}i:be- \text{the rP Verb gtsir; these are therefore both examples of the r Piece. The ambiguous Pieces exemplified in phe:be-, phebs-pa-red, 'he came', fe:be-, bshad-pa-red, 'he explained', and tri:be-, bris-pa-red, 'he wrote', on the other hand, cannot be shown to be (1), z; for there are no forms *phaguzu:, *jawuzu:, and *trajuzu:; or (ii), g; for there are no forms *phe:gerre, *fe:gerre, and *tri:gerre; or (iii), r; for there are no forms *phergere, *fergere, and *trugerere; they are therefore assumed to be d Pieces. phebs, bshad, and bris are then classified as dP Verbs; and any Piece in which any of them is exemplified is a d Piece. All dP Verbs to be noted are listed at Appendix IV.} \]
There is an exception to the statement that a given Verb is exemplified only from a single type of Quality Piece: *zer*, 'say'. The criteria of the terms of the Quality system require that some Pieces in which this Verb is exemplified should be classified as *z* but others as *r*, e.g.

\[
\begin{align*}
    r: & \quad \text{ser-} \quad \text{zer-ra-red} & \quad \text{'they said'}; \\
    s\text{ig} & \quad \text{zer-gyi-'dug} & \quad \text{'they say'}; \\
    z: & \quad \text{se\text{en}e} \quad \text{zer-na} & \quad \text{'if we say'}; \\
    s\text{a} & \quad \text{ze} & \quad \text{'it is said'}. \\
\end{align*}
\]

R. preferred the *zP* form *sebe-* to the *rP* form *sere-* (zer-ba/ra-red). The preferred form would regularize *zer* as a *zP* Verb, which was probably the reason why R. preferred it; but it is significant that in the unscripted recordings it is the forms *sere* and *serjine* that occur, not the preferred alternatives. *zer* is, therefore, classified as a *z/rP* Verb, exemplified in either type of Piece.

The case for classifying the two Verbs *phebs* and *sleb* as *bP* rather than as *dP* rests on the following, and similar, examples, all from scripted texts:
phebs  ph:bdy:  phebs-du:  'when you come';

phep'  phebs  'come' (G. and R.);

phepba:  phebs-pa  (where) have you come (from)' (G. and R.);

sleb  lebj5:  sleb-yong  'I will come' (G. and R.);

but the alternative forms phe:dy:, phe:, phe:ba:, and le:j5:, have been much more commonly recorded than the former, which can fairly be treated as spelling pronunciations. Apart, then, from these spelling pronunciations, all the Pieces in which phebs and sleb are exemplified are ambiguous: they could equally well be z, d, or r; e.g.

phe:gi-  phebs-kyi-nas  'are you coming';

phe:ba:  (ga-nas) phebs-pa  '(where) have you come (from)';

le:gi-  sleb-kyi-yod-pa-'dra  'it may reach';

le:ni  sleb-ni  'having arrived'.

Since there are no valid grounds for classifying them as zP or rP, phebs and sleb are classified as dP in accordance with the principle stated at pp. 345 - 7.

There are in the material a number of examples of Verbs the classification of which is uncertain; for the Pieces in which they are exemplified are all ambiguous, and afford only partial criteria. Thus, the Verb 'bud, of zhwa-mo 'bud-kyi-'dug (phi:gu:du:),
'their hats came off', must be either gP, dP, or rP; but it is not possible to say which. Similarly, the Verbs bral, of bral-ba-red (tro:bere), 'it was separated from', and phrod, of phrod-pa-red (tro:bere), 'he recognized', can be proved not to be zP (there are no forms *tragdu:, *tragdu:, p. 346), and must therefore be either dP or rP but cannot be identified until it is known whether tro:bere alternates with a form *trærere, and tro:bere with a form *trærere (p. 347).

A list of all the Verbs in the material that must be either dP or rP, but cannot be precisely identified, is given at Appendix IV, as the final paragraph under the heading dP Verbs.

Each of the Verbs in the preceding paragraph is classifiable given sufficient material to supply adequate contexts for testing; but there are others that cannot be classified, because they cannot be contained in the sort of Piece that yields criteria, e.g. (i) the Imperative-Clause form shog, of 'dir shog (jo:), 'come here' (G. and R.), and mgvora-no khyer shog (jo:), 'come quickly' (G. and R.), and (ii), the Imperative-Clause form mgvora, of 'di phar khyer mgvora (gju:), 'take this away' (G. and R.). Both shog and
rgyugs are either gP or rP; but it is not possible to say which, except that if the form rgyugs were identified with the Verb brgyugs/rgyugs, 'run', it could be identified as gP from e.g. gjo‘bере, brgyugs-pa-red, 'he ran'.

21213112. Verb-Complement and Particle Pieces

The second of the Quality statements also applies to monosyllabic and disyllabic Pieces. The monosyllabic Piece is grammatically classifiable as either (i), Verb, of the Complement sub-category: vod, vin, 'dug, red, yong, byung, med/mad, min/man; or (ii), Particle: vod (Past, Perfect), 'dug, (Past, Perfect), vin, red, yong, byung, med/mad (Past, Perfect), min/man (Past, Perfect), song, byong/myung; e.g. (i) (Verb), kho-rang 'brug-pa-red (re:), bod-pa (re:), 'is he Bhutanese, or is he Tibetan', la, mang-po zhe-po mi-yong (-j5:), 'no, there would not be very many'; (ii), (Particle),
(Mrs. Tharchin: by bzhus-gdan 'jags-yod-pas, 'are you at home, Rinzin'); R.: la vod (j0:), 'yes, I am';
(first speaker: khyod rdo-rie gling-la 'gro-myong-ngas, 'have you ever been to Darjeeling'); second speaker: ma-myong (-j5:), 'no (lit. not been)' (Bell). With the exception of song and myong/nyung there is, thus, a
homographic Verb (Complement) corresponding to each Particle.

The Verb Piece may be co-terminous with a Verb Word, as in the first example of section (i), red (re:); or it may be part of one of those Vb. + Part. Words in which the order of categories is Particle -- Verb, as in the second example, mi-yong (-j5:). The Particle Piece may also be co-terminous with a Particle Word, as in the first of the two examples in section (ii), yod (jø:); or it may be part of a Vb. + Part. Word, e.g. sang-zhog bcar-gyi-vin (-jii:), 'I will come and see you tomorrow', or part of a Particle Word, as in the second example in section (ii), ma-myong (-j5:).

The disyllabic Piece is grammatically classifiable as either (i), Vb. + Part., the Verb being, of course, a member of the Complement sub-category, and the order of categories being Verb --- Particle, or (ii), Particle only; e.g. (i), kho-rang 'brug-pa vin-na (jii:ne), 'is he Bhutanese, I wonder, (or is he Tibetan), 'di-'dras vin-pa-no (jumbe-), 'is that how it is'; (ii), (R.: [bha-than-nä] bzhugs-kyi-vod-na, 'does he stay at Bhutan House'; second speaker: a-tha ma'le'i mal-le brgyad-pa-la sa-'du tahang ko-ti, "Sandu Tshang" Koti, at Ath Mail -- Eighth Mile'); R.:
[a-las] 'long yod-na (jέ:νε), 'oh, yes, mm, so he does';
lcag-par de ga-dus thon-pa-vin-na (-jέ:νε), 'when did this type press start operating, then'.

The disyllabic Piece may be co-terminous with a Word, e.g. the first example in section (i), vin-na, and the first example in section (ii), yod-na; or it may be part of a Vb. + Part. Word (there are no examples in the thesis material of a Piece's being part of a Particle Word, though such Words are certainly possible), e.g. vin-pa(-no) (Vb.: vin; Part.: pa) and (thon-pa)-vin-na (Part.: vin, na) above.

The reason for treating Pieces containing Verb-Complement Syllables simultaneously with Pieces containing Particle Syllables only is that each of the Verb-Complement Syllables can be homophonous with one or more Particle Syllables, e.g. Verb-Complement yod, Non-future Particle yod, Perfective Particle yod: Verb-Complement vin, Non-present Particle vin; a considerable economy in statement can therefore be achieved by treating all four types of Piece (Vb., Part., Vb. + Part., Part. + Part.) together, and by stating for them too the same eight term system as has been stated for Pieces containing Main-Verb and Auxiliary-Verb Syllables (21213111).
Only four terms of that system are exemplified in Pieces of the grammatical type considered in 21213112; and this is not surprising when it is remembered that the number of lexical items concerned is small (pp. 356 - 8), much smaller than those of the Main-Verb and the Auxiliary-Verb type of Quality Piece (21213111). These four terms are:  g, η, d, n. The exponency of some of these terms (η, n) is identical with that of these same terms in the Main-Verb and the Auxiliary-Verb type of Piece; but the exponency of the others (g, d) is sufficiently different for a separate statement to be necessary.

The exponents of the four terms are stated first, at 212131121, for the monosyllabic Piece; they may stand for Verb Piece and Particle Piece alike.

212131121. **Monosyllabic Piece**

- **g**: (closeness + backness + long/short duration):  \( u(\cdot) \)
- **η**: (nasality + backness + long/short duration + (i), aperture between close and half-close, with centrality, or (ii), half-openness)  \( 3(\cdot) \)
- **d**: a. (frontness + long/short duration + (i), spreading \( e(\cdot) \)
  + half-closeness/half-openness; or (ii), rounding \( e(\cdot) \)
  + half-closeness)  \( 5(\cdot) \)
b. (frontness with centrality + aperture between close and half-close + short duration)

n: (frontness + nasality + long/short duration + (i)
aperture between close and half-close, with centrality;  t(:)
or (ii), half-openness)  e(:)

e.g.

g: (Vb.)  gas mi-‘dug (-du:)
phyag-dpe skyon-rgyu ‘dug (du:)
(Part.) ga-dus chibs-bsgyur gnang-
                   gi-dug (-du:)
la da-ga rang ‘dug (du) ‘yes, he certainly
would’;

η: (Vb.)  mang-po zhe-po mi-yong (-j5:) ‘there would not be
very many’;

     sems dga’-po ra-po byung
(Part,) ma-myong (-j5:)
                    (tʃhɔ:) ‘I was sort-of
               delighted’;

     mig mthong-byung (-dʒɔ) ‘I saw’;

d: a.

(Vb.) kho-rang bod-pa red (re:) ‘is he Tibetan, or
la tsang-ni mad (me:) ‘no, I have none
------’;
whatever’;
(Part.) la yod (je:) bzhag-a-yod (-je)  

'yes, I am' [at home]; 'I do not think I have put it';

b.

(Vb.) rdo-par rang red (rt) dang  

'is it really a litho press';

(Part.) bagri-gyi-vod-red (-rt) dang  

'does one adjust it';

n: (Vb.) nga bod-pa min (me:)  

'I am not a Tibetan' (Bell)

ka-sbug-la 'gro-nyan yin (ji:)  

'I am on my way to Kalimpong';

(Part.) sang-zhog bcar-gyi-yin (-ji:)  

'I will call on you tomorrow morning';

da-ga rang yin (ji)  

'you certainly did'

The degree of vowel duration of all four types of Piece is related to differences in Intonation (Emphatic, Non-emphatic: 2121212121, 2a and 5b; 2121212212).

The dP exponent given at (b) applies only to the Syllable red, and then only when followed by the Interrogative-Particle Syllable dang.

The degree of vowel duration of all four types of Piece is related to differences in Intonation (Emphatic, Non-emphatic: 2121212121, 2a and 5b; 2121212212).

The dP exponent given at (b) applies only to the Syllable red, and then only when followed by the Interrogative-Particle Syllable dang.

212131122. **Disyllabic Piece**

In the disyllabic Piece the second Syllable of the Piece is one of the following Particle Syllables:

pa/ba/ga/nga/na (Nominalizing, Past), shag/zhag, ma/mi, 'dug (Perfective, Non-future), yod (Perfective,
Non-future), med/mad (Perfective, Non-future), song, pa/ga/nga (Corroborative-Interrogative, Special Interrogative, Exclamatory), pas/gas/ngas/ras, na (Special-Interrogative, Alternative-Interrogative, Exclamatory), dus (Temporal, Nominalizing), tsang, nas/ni, byas, ze/se. The vowels and consonants of certain Particle Syllables vary with the type of Quality Piece in which each is contained, just as in the Main-Verb and the Auxiliary-Verb Piece (212131112).

Special consideration has therefore to be given to those g, η, d, and n exponents which relate to Pieces containing the following Syllables: (1), pa/ba/ga/ nga/ra (Nomzg.), (2), pa/ba/ga/nga/ra (Past), (3), pa/ga/nga (Corrob.-Int., Spec.-Int., Exclam.), ga/nga (Alt.-Int.), (4), pas/gas/ngas, (5), tsang, (6), dog/dwogs/rdog.

1. The members of the sub-category of Verb Complement that is colligable with the sub-category of Nominalizing Particle that comprises the one member pa/ba/ga/nga/ra are yod, vin, med/mad, min/man, byung, possibly yong. (there are no examples in the thesis material), but not 'dug and red; the correspondingly colligable sub-category of Verbal Particle comprises yod, vin,
mad/med, min/man, probably byung, yong, song, myong/nyung, but not 'dug, and red. There cannot, therefore, be any gP examples for this grammatical type of Piece. The exponents of η, d, and n are:

η: (backness + aperture between close and half-close, with centrality + short duration), (velarity + nasality), open centrality:

a. (frontness + long duration + either i, half-closeness + rounding, or ii, half-openness + spreading), (labiality + plosion/friction (ft) + voice), medium centrality

b. (the vowels ø and ε + long duration as at (a)), (labiality + voice + occlusion + syllabicity):

n: a. (frontness + spreading + long duration + either, i, aperture between close and half-close, with centrality, or, ii, half-openness (labiality + nasality), (labiality + plosion + voice), medium centrality:

b. (the vowels i and ε + short duration as at (a)), (labiality + nasality), either, i, (labiality + nasality), medium centrality, or, ii, (labiality + nasality + syllabicity):
\textbf{2.} The members of the sub-category of Verb Complement that colligates with the sub-category of Verbal Particle comprising the one member \texttt{pa/ba/ga/nga/ra} are \textit{byung}, \textit{vod}, and \textit{vin} ('\texttt{dug}, \texttt{vong}, \texttt{red}, \texttt{med/mad}, and \texttt{min/man} are therefore excluded); while the
corresponding Particle sub-category comprises only "vod", and thus excludes byung, 'dug, yin, yong, red, song, myong/nyung, med/mad, min/man. There cannot therefore be any gP examples, or ηP and nP Part. + Part. Pieces. The η, d, and n exponents are:

η: a. (backness + aperture between close and half-close, with centrality + short duration),
   (velarity + nasality), labiality + voice + plosion), medium centrality: b. (ft) the vowel ♣ as at (a), (velarity + nasality), open centrality:

d: half-openness + backness + rounding + long duration):

n: as for (1), n, (a):

e.g.

η: (Vb. + Part.)

a. slab-nyan mang-po byung-nga-red (tʃhɑŋbə) 'there came to be a lot of students;

b. phyug-po byung-nga(ba)-red (tʃhɑŋ-) 'he has become rich' (Bell);

d: (Vb. + Part.)

gsar-pa bagrigs-ka smang-rgyu vod-pa- "would there be new
   yin-pa-no (jo:-) ones for you to set'

gas yos-ma-red-pa (jo:-) 'there would not be
   any, would there'.
would they adjust it;  
'he was born in Kham'  
(G. and R., altered)

'it is a litho press, I suppose';

'who do you suppose he is';

The members of the Verb Complement sub-category and the Particle sub-category that colligate with the Corroborative-Interrogative Particle (*pa*/*ba*/* nga*) are:

Vb.: *'dug*, *byung*, *yong*, *red*,

Part.: *, *, *, *, *, *song*, *myong*/*nyung*;

there are no examples in the material of *vod*, *vin*, *min*/*man*, *med*/*mad*, all of which are thought not to be members.

The members of the Verb-Complement sub-category and the Particle sub-category that colligate with the Special-Interrogative Particle (*pa*/*ga*/* nga*) are:

Vb.: *vod*, *'dug*, *vin*, *byung*, *yong*,

Part.: *, *, *, *, *, *song*, *myong*/*nyung*;

there are no examples in the material of *red*, *med*/*mad*, and *min*/*man*, which are thought not to be members.
c. The members of the Verb-Complement sub-category and the Particle sub-category that colligate with the Exclamatory Particle (pa/ga/nga) include:

Vb.: 'dug, byung,

Part.: "", "vin, song;

no other forms have been noted in the material; and there are therefore no dP examples for this grammatical type of Piece.

d. The members of the sub-category of Verb Complement and of the Verbal Particle that colligate with the sub-category of Alternative-Interrogative Particle comprising pa/ga/nga are 'dug, yod, and vin, and probably also byung, yong, song, med/mad, min/man.

The exponents of g, η, d, and n, so far as they can be exemplified in each of these four grammatical types of Piece, are:

\[ g: \text{(aperture between close and half-close + backness, with centrality + short duration)}, \]
\[ \text{(velarity + plosion), openness + frontness):} \]

\[ \eta: \text{(aperture between close and half-close + backness, with centrality, + short duration,} \]
\[ \text{(half-openness + backness + short duration,} \]
\[ \text{velarity + nasality, (openness + frontness + short duration:}} \]
d: a. (red) (aperture between close and half-close + frontness, with centrality + spreading + short duration), (labiality + plosion), (openness + backness + long duration):

b. (yod) (half-closeness + frontness + rounding + long duration), (labiality + plosion), (openness + backness + long duration):

n: (aperture between close and half-close + frontness, with centrality + short duration), (labiality + nasality), (labiality + plosion), (openness + backness + long duration):

\[ \text{\textit{tba:}} \]

\[ \text{\textit{b:ba:}} \]

\[ \text{\textit{lmba:}} \]

e.g.

g: (Vb. + Part.)

\textit{skon-sa'i 'dug-ka} (\textit{d\text{\textcopyright}ga})

'what a shortage there is' (Exclam.);

\textit{sku-thang mnyes-po 'dug-ka} (\textit{d\text{\textcopyright}ga})

'is it tiring, or -- --' (Alt. Int.);

(Part. + Part.)

\textit{ga-re gsungs-kyi-'dug-ga} (\textit{-d\text{\textcopyright}ga})

'what does he say' (Spec. Int.);

\textit{bries 'gro-gi-'dug-ka} (\textit{-d\text{\textcopyright}ga})

'it goes and changes, does it not' (Corr. Int.);

\[ \text{\textit{g}: (Vb. + Part.)} \]

\textit{sku mnyel-po ma byung-nga} (\textit{t\text{\textcopyright}h\text{\textcopyright}na})

'so you did not get tired' (Exclam.);

\textit{gtam-dpe yong-nga} (\textit{j\text{\textcopyright}na})

'there is a proverb, is there not' (Corr. Int.);
"then you did not get tired" (Excl.);

"how much will (Your Honour) give" (Bell) (Spec. Int.);

"what have you for sale" (G. and R., altered)

"that is how it is, is it not" (Corr. Int.)

"there would not be any, would there" (Corr. Int.);

"are you coming by air, or..." (Alt. Int.);

"how much is it" (Spec. Int.);

4. The g, r, d, and n exponents in Pieces in which the second Syllable is pas/gas/ngas/ras (General Interrogative) are:

g: (aperture between close and half-close + backness, with centrality), (velarity + plosion, half-closeness): 

\( \text{age} \)
η: either, i, aperture as for g above, or, ii, half-openness; (velarity + nasality), half-openness:

δ: (frontness + either, i, half-closeness + rounding, or, ii, frontness + aperture between close and half-close, with centrality, or, iii, half-openness + spreading), (labiality + friction), half-openness:

ηη: (frontness + i, aperture between close and half-close, with centrality, or ii, half-openness), (labiality + nasality), (labiality + plosion), half-closeness/half-openness:

ε. η.

g: (Vb. + Part.)

khang-pa skyid-po 'dug-gas (döge:) 'is the house comfortable' (Bell);
tsha-sa'i mi-'dug-gas (-döge:) 'is it not a hot spot too';

(Part. + Part.)

me 'bar-gyi-'dug-gas (-döge:) 'is the fire burning' (G. and R.);
\( \eta: (\text{Vb.} + \text{Part.}) \)

\[ \text{bod lung-pa chen-po yong-ngas (j} \text{ø} \text{ø}:) \]

'is Tibet a large country' (Bell);

\[ \text{spro-po byung-ngas (t} \text{j} \text{høø}:) \]

'was it pleasant';

\[ \text{rdo-rje gling-la 'pro-myong-ngas (} \text{j} \text{ø} \text{ø}:) \]

'have you ever been to Darjeeling' (Bell);

\[ \text{mthong-song-ngas (-s} \text{ø} \text{ø}:) \]

'did he see';

\( d: (\text{Vb.} + \text{Part.}) \)

\[ \text{gcig-pa red-pas (r} \text{βø}:) \]

'is it the same';

\[ \text{sku-khams bzang-po yod-pas (j} \text{βø}:) \]

'how are you';

\[ \text{bzhes-kvi-med-pas (-m} \text{βø}:) \]

'do you not take (chang)' (G. and R.);

\[ \text{klog mkhyen-kvi-yod-pas (-j} \text{βø}:) \]

'can you read' (G. and R.);

\( n: (\text{Vb.} + \text{Part.}) \)

\[ \text{inha-pa vin-pas (j} \text{umbe}:) \]

'are you in the fifth';

\[ \text{rgvab-kvi-vin-pas (-j} \text{umbe}:) \]

'Will you print it';

\[ \text{las-ka 'di byed-kvi-min-pas (-m} \text{umbe}:) \]

'are you not going to do this work'.

5. The sub-categories of Verb Complement and of Verbal Particle that colligate with the Causative
Particle (tsang) comprise yod, med/mad, vin, min/man, possibly also byung, yong, song, myong/nyung, but not 'dug and red; there cannot therefore be any g examples. The exponents of η, d, and n are:

η: none noted.

d: (frontness + long duration + either, i, half-closeness + rounding, or, ii, half-openness + spreading), affrication/(ft) friction: ø:dz e:dz

n: (short duration + either, i, aperture between close and half-close + frontness, with centrality, or, ii, half-openness + frontness), (alveolarity - nasality), (alveolarity + friction):

\[ \text{n: (Vb. + Part.)} \]
\[ \text{de vin-tsang (junzd:)} \]
\[ \text{(Part. + Part.)} \]
\[ \text{lcag-par rang thon-pa-vin-tsang (-junzd:)} \]

'-since I have not got a whip' (Bell);

'-since there are lots of people of Tibetan race'

'-in which case';

'-because a real type press has come out'.
The only two members of the Verb-Complement sub-category of Verb to have been observed in a colligation of Verb Complement with the sub-category of Nominalizing Particle of which $\textit{dwogs/\text{dog}/r\text{dog}}$ is a member are $\textit{yod}$ and $\textit{vin}$; but it is possible that $\textit{med/mad, min/man,}$ and $\textit{byung}$, though not $\textit{yong, 'dug,}$ and $\textit{red}$, also belong to it. The exponents of $\textit{d}$ and $\textit{n}$ are:

\begin{align*}
\text{d:} & \quad \text{(half-closeness + frontness + rounding + short duration), (dentality + nasality), (dentality + plosion):} \\
\text{n:} & \quad \text{(aperture between close and half-close + frontness, with centrality + short duration), (dentality + nasality), (dentality + plosion):}
\end{align*}

\[\text{e.g.} \]

\begin{align*}
\text{d:} & \quad \text{yod-\textit{dwogs} (j\text{\textcircled{nd}}\text{o:}) kha-po red} \quad \text{'he may possibly have'}; \\
\text{n:} & \quad \text{vin-\textit{dwogs} (j\text{\textcircled{nd}}\text{o:}) kha-po red} \quad \text{'he may possibly be'}.
\end{align*}

Sections (1) - (6) above deal with the exponency of $\textit{g, \eta, d,}$ and $\textit{n}$ in Pieces in which the consonants and vowels of the Particle Syllable vary in accordance with

\[\text{1 No other vowels have been observed in the material.}\]
the prosodic type of Piece; it remains to give an account of their exponency in Pieces in which the Particle Syllable is not one of those so far considered but one of the following: shag/zhag, ma/mi, 'dug (Perf.), vod (Perf.), med/mad (Perf.), song, na (Spec. Int., Alt., Int., Exclam., Conditional), dus (Temp., Nomzg.), nas/ni, byas, ze/se.

The sub-category of Verb Complement or of Particle to which the Syllables 'dug belong colligates only with the Conditional (na) and the Indirect-Speech (ze/se) sub-categories of Particle, and with a sub-category of Exclamatory Particle comprising na; its exponents are, therefore:
(closeness + backness + long duration), either, i, nasality, vowel, or, ii, (friction + syllabicity): u:nV u:s
e.g.
(Vb. + Part.)
vag-go 'dug[-na] (du:ne) "mm, this is very good";
(Part. + Part.)
ga-re zer-gyi-'dug-na (-du:ne) "what is this called, mm";

The sub-category of Verb Complement to which byung belongs is thought to colligate with sub-categories of Particle comprising all the Particles to be considered here; but the sub-category to which the Verb yong
belongs, and the sub-category of Particle to which byung, yong, song, and myong/nyung belong, are believed to colligate only with the Conditional (na), the Exclamatory (na), and the Indirect-Speech (ze/se)

The n exponents are, therefore:

a. (long duration + nasality + the vowels o or e), friction/nasality/semi-vowel:
   $\alpha : F \ 5 : F$
   $\alpha : N \ 5 : N$
   $\alpha : j \ 5 : j$

b. (Vb. + Part. only) (short duration + the vowel o), (velarity + nasality), plosion/affrication: and andz

   e.g.
   (Vb. + Part.)
   a. gtsang-ma byung-shag (tʃhɔːja) 'it has come neat';
   b. skyon byung-'dug (tʃhɔːndu) 'damage got done';

(Part. + Part.)
   a. sgang-tok-la phyin-song-zer (-sɔːt), zhus-a 'say I went to Gangtok, would you'.

   d: The Verbs yod and med/mad, and the Particles yod and med/mad, belong to sub-categories of Verb and Particle that colligate with a sub-category of Particle comprising shag/zhag, na (Spec. Int., Alt. Int., Exclam., Condit.), dus (Temp., Nomzg.), nas/ni, ze/se,
and possibly byas; the Verb red and the Particle red, on the other hand, belong to sub-categories, of Verb or Particle, that colligate only with the Exclamatory (na) and Indirect-Speech (ze/se) sub-categories of Particle.

The d exponents are, therefore,

a. (one of the vowels e, o, ε + short/long duration), (nasality + dentality)/(friction + syllabicity): e(:) n e(:) s o(:) n o(:) s e(:) n e(:) s

b. (one of the vowels e, ε + short/long duration), (friction + palatality): o(:) s e(:) s

c. (the vowels y, e + long duration), (dentality + plosion):
y:d e:d

d. (the vowels o, ε + long duration), (affrication + alveolararity):
o:dr ε:dr

e.g.
(Vb. + Part.)

a. la red[-na] (re:n):

'I mm, yes, he is' ;

b. sku-gzugs bde-po yod-shag (jøja):

'I see you are well';

c. med-dus (me:dy:)

'when he had not got' ;

(Part. + Part.)

a. skad gzhan-pa slab-dgo-yod-na (-jøne):

'you have to learn another

language, mm' ;
b. chibs-bagur emang-gi-vod-shag
   (-jëja) 'I see you are on your way to';

d. snyung-gzhi phog-gi-mad-'gro
   (= më:dro) 'he might catch an illness'.

n: The sub-categories of Verb, or Particle, to which
vin and min/man belong colligate with a sub-category of
Particle comprising shag/shag, na (Spec. Int., Alt.
Int., Exclam., Condit.), dus (Temp., Nomzg.), nas/ni,
ze/se, and possibly byas (cf. also the dP Particles
and Verbs vod and mad/mad); the n exponents are,
therefore:

a. (the vowels û, ë + short/long duration), either, i,
nasality, vowel; or, ii,
friction: û(:)nV ë(:)nV û(:) s ë(:) s û(:) s ë(:) s

b. (the vowel û + nasality + short duration),
nasality + syllabicity:

\[ ûn \]

``

c. (the vowels û, ë + short duration), (nasality +
dentality), (dentality + plosion): \textit{and end}

d. (the vowels û, ë, + short duration), (nasality +
alveolar), (alveolar + affrication) \textit{indr endr}
``
e.g.

(Vb. + Part.)

a. 'di min-na (më:ne)
   sku-gzugs bde-po vin-shag (jëja) 'apart from this';
   'I see you are well';

b. vin-dus (jindy:) 'when you are';
d. khong min-'gro (m\textsuperscript{\textregistered}ndro)  

'it is him, do you not think';

(Part. + Part.)

a. ga-dus thon-pa-vin-na (-j\textsuperscript{\textregistered}ne)  

'when did it come into operation';

b. ga-re [zer-ra-vin-na] (-j\textsuperscript{\textregistered}n)  

'what is it called';

d. phag-ri-la bsdad-kyi-vin-\textsuperscript{'}gro (-j\textsuperscript{\textregistered}ndro)  

'he will probably stay at Phari' (Bell).

The duration of vowel of d exponent (a) and n exponent (a) is associated with differences in pitch behaviour (Intonation: 21212121, 2a; 2121212212).

From the prosodic type of Piece to which each is restricted the Syllables 'dug can be classified as gP, the Syllables byung, yong, song, and myong/nyung as nP, the Syllables vod, red, and med/mad as dP, and the Syllables vin and min/man as nP.
21213113. **Particle Pieces**

The first statement of expenency of the Quality system (21213111) dealt with monosyllabic and disyllabic Pieces containing Main-Verb and Auxiliary-Verb Syllables; the second (21213112) dealt with monosyllabic and disyllabic Pieces containing either Verb-Complement Syllables ('dug, byung, yong, yod, med/mad, red, yin, min/man) or Verbal-Particle Syllables belonging to a sub-category comprising 'dug, byung, yong, yod, med/mad, yin, min/man, sonq, myong/hyung, some of whose members are homophonous with members of the Complement sub-category of Verb. These two statements deal with complexes of inter-related vowel-duration, vowel-quality, and consonantal, features that characterize the various grammatical types of Syllable specified above, and, in addition to these, in the disyllabic Piece, whatever other Verbal-Particle Syllables are associated with them in that Piece; between them they provide for the relevant features of all three sub-categories of Verb Syllables, but completely cover only a limited number of the Verbal-Particle Syllables: the nine listed above, together with pa/ga (Corroborative-Interrogative), pa/ga/nga (Special-Interrogative, Alternative-Interrogative, Exclamatory).
Some of the remaining Particles are Nominalizing. These are to be treated together with the Noun, and not at all below; for both Noun and Nominalizing Particle collocate with the Nominal-Particle category in the order (i), Noun or Nominalizing Particle, (ii), Nominal Particle.

With the Nominalizing Particles withdrawn, the following Particles remain: de'i/te/ta'i/'das/da'i, a (Imperative), a (Dubbative), pas/gas/ngas/ras, -'i, byas, nas/ni, dgos/dgo/go, ri/gyi/gyi, shag/zhag, ma/mi, na (Special-Interrogative, Conditional, Exclamatory), na/na'i (Alternative-Interrogative), ga/ka/kag, pa/ba/ga/ nga/ra, do, gro/'gro, shig, 'dra, no, bzhin, tsang, yang/-'i/-a, dang/da (Imperative), dang (General-Interrogative), se/ze.

These remaining Particle Syllables are also characterized by special relationships of vowel duration with vowel quality, and of both of these with nasality. These complexes of inter-related features are of the following types: (i), long vowel duration combines with vowel qualities e, e, y, a, but not with u, unless accompanied by nasality (i:), and not with a, o, o, e, e, a; (ii), short vowel duration combines with the vowel qualities u, e, e, y, a, o, o, a, u, e, e, e, but not with a; (iii), nasality combines with u and a,
but not with ə, ɛ, ɔ, ɐ, y, ɕ, a, ʌ, ə, e.

Certain of these Particle Syllables can be exemplified in Intraverbal Junction with the following Syllable; others of them are confined to Interverbal Junction. The former are considered first, at 212131131, and the latter at 212131132.

212131131. Exemplifiable in Intraverbal Junction

These Particles can be further divided into those which can be exemplified both in Intraverbal Junction with the following Syllable and in Interverbal Junction as well (ma/mi, gi/kvi/kvi, dgos/dgo/go, the Conditional Particle na) and those which are restricted to Intraverbal Junction with the following Syllable (the Dubitative Particle a and the Past Particle na/ba/ga/nga/ra). The former are dealt with at 212131131, and the latter at 212131132.

212131131. Exemplifiable in both Intra- and Inter-verbal Junction

Three of the four Particles concerned display the same features in Interverbal Junction as do z-Piece Verbs in Interverbal Junction (212131111): short duration + a, ɔ, ə); e.g.

ma/mi:  phers ma (ma) thub-[tsang] 'since he cannot come';
ɡi/kvi/kvi:  thugs 'phams-po [mgang-gis]
(-ɡ) 'he is sorry';
daos/dgo/go:  ga-le thad-go (-ɡ0) 'good bye';
they are classified accordingly as z-Piece by the same criterion as the z-Piece Verb.

In Intraverbal Junction with a following Syllable these three Particles can be characterized by precisely the same vocalic features as above; and the disyllabic Piece containing them is classified in accordance with the following z-Piece criterion: (short duration + a, u, o), consonant (e.g. r, d, ?), vowel (e.g. u, u:, o), e.g.

ma/mi: gas yog-ma-red-pa (-mar-) 'there are not any, are there';
gi/vyi/kyi: sgrigs-kyi-dug (-gdu:) 'that is right';
dgos/dgo/go: bka'-mol zhu-dgos-vod (-gocq) 'I must have a talk';
but these vowels alternate with others:

These vowel alternations are ascribed to prosodic differences in type of Piece, and are dealt with through the Tempo, Juncture, Labialization, and Closure systems (21211, 2121314, 2121321, 212133).

Two of these alternative vowels, ɔ and ʌ, are new to the first Syllable of the disyllabic Quality Piece: they are not exemplified in either the disyllabic Main or Auxiliary Verb + Particle Piece (21213111) or the disyllabic Verb Complement + Particle Piece (21213112). In fact it is largely because of this phonetic difference that a separate statement of exponency has had to be made for
disyllabic Particle + Particle Pieces of the type dealt with in the current section. Thus the sequences of Intraverbal-Junction features $eCV$ and $yCV$ are also comprised in the criterion of the $z$ term in addition to $\underline{\underline{\underline{u/\varepsilon/a/\lambda/\varepsilon/dCV}}}$. Under the Intraverbal-Junction criterion $eCV$ the Conditional Particle $na$ can also be classified as $z$-Piece, e.g.

'brug-pa yan-na-min ($-n\varepsilon\varepsilon$) 'whether she is Bhutanese or not';

bzhu-gdan 'jang-yod-na-med ($-n\varepsilon\varepsilon$) 'whether she is at home or not';

grang-mo yan-na-yang ($-n\varepsilon\varepsilon$) 'even though it is cold'. Thus, $na$ resembles the other $z$-Piece Particles $ma/mi$ and $gi/cvi/kyi$ in being characterized by a central vowel quality ($e$) in Intraverbal Junction under certain conditions; but there is one important respect in which it differs from them: $na$ can be characterized by $e$ in Interverbal Junction as well as in Intraverbal; e.g.

khebs-na ($-n\varepsilon$) 'if it spreads over'; phebs-na ($-n\varepsilon$) 'if she comes'. Here $na$ differs from $ma/mi$ in Interverbal Junction, in the Particle Word $ma$ ($ma$) (p. 376), and from the $z$-Piece Verbs in the Verb Words at 2121111111 ($-\varepsilon$, $-\varepsilon$, $-a$, $-\varepsilon$, $-\varepsilon$), neither of which can be characterized by a central vowel quality; but the difference in vocalic features between $na$ and e.g. the Particle $ma/mi$ and the Verb $blta$ (look at) reflects a difference in environment: in Interverbal
Junction na is invariably the final Syllable of a polysyllabic Word; ma, and the Verbs in 212131111 are exemplified in monosyllabic Words. When compounded with another Syllable as part of a disyllabic Noun, on the other hand, the z-Piece Verb blta is also characterized by a central vowel quality (e), e.g.

blta (-a) 'gro-'dug 'he is about to look'.

Under comparable Interverbal-Junction conditions both z-Piece Verb in -a and z-Piece Particle are characterized by e (ma/mi cannot be the final Syllable of a polysyllabic Word).

It will have been observed that though na can be characterized in Intraverbal Junction by e but not by a, ma/mi is regularly characterized by a. The difference in vowel quality of these two z-Piece Particles is due to a difference in phonetic conditions. The two vowels are complementarily distributed: a is appropriate to Syllables that can be characterized by a fall in pitch (cf. also the Dubitative Particle a, 2121311312) and e to Syllables that cannot (cf. also the Past Particle na/ba/rə/ŋɔ/ra and the Exclamatory na, 2121311312), except that in Fast Tempo utterances ma/mi has e as an alternative to a, e.g.
bear thub-ma-song (-mosa) 'I was unable to come and see (you)';
thug-ma-byung (-madga) 'I did not meet (him)' (G. and R.)

212131313. *Intraverb*al only

The three Particle Syllables a (Dubitative),
*pa/-ba/-ga/-nga/-ra* (Past), and na (Exclamatory) have in common
the fact that they are invariably in *Intraverb*al Junction
with the following Syllable.

Like ma/mi in *Intraverb*al Junction, and unlike the
Conditional na (212131311), a can be characterized by a
fall in pitch, and therefore also by a front vowel quality
(a); it is also characterized by a short duration; e.g.
*yag-po a-yong (-aj0) 'I doubt whether it will turn
out well' (Bell);

la yag-po shea-kyi-a-yod (-aj0) 'I doubt whether I do speak
it well';
it is, accordingly, classified as z-Piece by the same
criterion: (short duration + v/ε/α/ʌ/ɔ/ɛ/ɔ/ʌ/ɔ), consonant (C)
vowel (V). This criterion also covers the alternative
vowel ^, e.g.

chang 'di yag-po a-yin-na (-ajι-) 'I doubt whether this beer
is all right'

(for the alternation of a with ^ see Closure,
Like the Conditional na the two Particles pa/-ba/-ga/-nga/-ra
and na (Exclamatory) cannot be characterized by a fall in
pitch (212131311); their vowel qualities are therefore
central (pa: ø/ε; naː), not open and front (a); e.g.
bzhugs bzhugs-pa-yin-na
(-bajː:-) 'you used to live, I suppose';
skyon tshe-ra-yin-na (-rrajː:-) 'he has finished printing; I suppose';
phyag-las ga-ga-tsam cig
gmang-ngas-yin-na (-rajː:-) 'about how long did you work, I wonder';
mdas yod-na-a (-eːa)
'would that -- -- were here'
(Bell)
(for the alternation of ø and e see Quality, 212131112, 1,b; 212131122, 2). Both Particles are classified as z-Piece (ø/εCV).

212131132. Exemplifiable in Interverbal Junction only

Those (twenty-one) monosyllabic Particles which either themselves invariably constitute a single (monosyllabic) Word (dang, de'i/te/ta'i/'das/da'i, 'dra, 21112/4), or are invariably final in a polysyllabic Word (nas/ni, the Alternative-Interrogative na/na'i, the Special-Interrogative na, shig, no, ze/se, -'i/-s, byas, pas/gas/ngas/ras, dus, the Imperative a, ga/kag, the Special-Interrogative pa/ga/nga, bahag/zhang, bzhin, tsang, yang), or appear to fluctuate between the two (dang/da, gro'/gro, do, 211123,5,6) can of course be classified only be reference to the Quality-system criteria applicable to Interverbal Junction. For certain of them classification in the light of these criteria offers no difficulty; the following can be
immediately classified:

\[ z: \text{(short durat. } + \nu/e/o/ \omega) \left\{ \begin{array}{l} \text{a, monosyll. Word)} \| \text{-shig, -nas/ni, -no, -do}, \text{(-)gro/-gro,} \\ \text{\epsilon, polysyll. Word)} \| \text{'dra (a), -na (\epsilon);} \end{array} \right. \]

\[ \eta: \text{(nasality } + a/o/\omega) \left\{ \begin{array}{l} \text{dang, dang/da,} \\ \text{-yang;} \end{array} \right. \]

\text{e.g.}

\[ z: \text{vin-na 'dra (dra)} \text{ 'it seems to be'}; \]

\[ \text{ga-dus chibs-bsgyur smang- nga-vin-na (-na)} \text{ 'when did you come, I wonder';} \]

\[ \text{tshar-ni (-n\epsilon/n\iota)} \text{ 'having finished';} \]

\[ \eta: \text{red dang (t\ddot{a}:)} \text{ 'is it'.} \]

The z-Piece Syllable 'dra (a) can be compared to ma/ni in Interverbal Junction (ma); -shig (\nu) and nas/ni (\epsilon/\nu) can be compared to -gis/gvis/kvis (\nu); and -no (\epsilon), -do (\epsilon), and (-)gro/-gro (\epsilon) to dgos/dro/co (\epsilon) (2121311311). For the vowel alternation \epsilon/\nu in nas/ni see Tempo, 21211, vi.

The difficulty with most of the remainder is that Interverbal Junction offers no means of distinguishing d-Piece Syllables from certain r-Piece Syllables, g-Piece from certain r-Piece, and certain n-Piece from certain \eta-Piece Syllables (pp. 312-13). For Verbs the further distinctions provided by features of the Verb Syllable in Intraverbal Junction (212131112, 212131122) make it
possible to identify Verbs whose classification is uncertain in Interverbal Junction; but no such possibility is open to those Particles which are restricted to Interverbal Junction, whence some cannot be identified with a single prosodic type, and are given alternative classifications:

d: \[\left(\text{short/long durat. } + e/\varepsilon/y\right)\quad \text{de'i} (e/\varepsilon), \text{byas} (e), \text{dus} (y),\]

r: \[\left(\text{long } + \varepsilon\right)\quad \text{pas/gas/ngas/ras} (e/\varepsilon)\]

(the Non-Sentence-Final-Clause Particles de'i, byas, and dus are generally characterized by short duration, and the Sentence-Final-Clause Particle pas by long duration; for the \(e/\varepsilon\) alternation see Closure, 212133).

\[\text{g: }\left\{\begin{array}{l}
\text{velarity/alveolarity/palatality, (short duration } + a) \\
\text{labiality/glottality, (long } + a) \\
\end{array}\right.\]

\[-\text{ga/ka/kag} (-\text{ga}), -\text{shag/shag} (-\text{ja}), -\text{pa/ra/rag} (-\text{ba:/ra/rag}), -\text{a} (-\text{a:}) \text{ (these criteria apply only to polysyllabic Words; the alternation of } a \text{ with } a: \text{ for } \text{pa/ra/rag} \text{ is dealt with through the Quality system, 212131112, l.c and 212131122, s)};\]

\[\text{n: }\left\{\begin{array}{l}
\text{nasality } + v \\
\end{array}\right. \text{ bzhin} (\ddot{i}); \text{ e.g.}\]
d/r: red-pas (\(-\beta e:\) ) 'is it';
skyes-byas (\(-d\theta e:\) ) 'having been born';
g/r: mig lta-ga (\(-ga:\) ) 'to see whether' (Bell);
bzhugs-gdan 'lag-a (\(-\varphi a:\) ) 'do sit down';
(for pa/ga/nga see 21311112, l.c and 213111122, 3);
n/ŋ: byas-bzhin (\(-\varphi i:\) ) 'therefore'.

The only Particles in this group that have not yet been classified are \(-'i/-g, -na/na'i, and -se/ze.\)

The first of these, \(-'i/-g, is invariably preceded by na (Conditional), and has been adequately illustrated above (21311111). Since its vowel features cannot be separated from those of na, it can be classified only tentatively, as z-Piece.

\(-'i/-g appears to alternate stylistically with yang, the latter being appropriate to more formal circumstances.\)

The vowels of the Alternative-Interrogative Particle na/na'i vary according as the Clause in which it occurs is Sentence-final or not, short duration and centrality (\(e\) being appropriate to Sentence-final position, and

\(^1\text{Cf. Bell (Grammar, 89), in which su phyn-nas and su phyn-na-yang are given as alternatives for 'anybody who goes', while 'dug-nas alternates, similarly, with 'dug-na-yang for 'anything that is'. P. also occasionally uses \(-g rather than \(-'i; either is an adequate phonetic spelling.\)
long duration, backness, and openness (a:) to non-Sentence-final (the difference in pronunciation is occasionally symbolized in the orthography by the use of na'i in the non-Sentence-final Clause in preference to na); e.g.

rkang-skor vin-na'i (a:), glog vin-na (e);
'is it foot-operated; or is it electric'.
de'i sngas-la -- lcags-par da-ga vin-na (a:), yang rdo-par vin-na (e);
'was it this very type press before that; or was it a litho press'.

sngan-ma nang-bzhin dbyin-ii scig-go'i vin-na'i (a:), yang skad gzhan-pa slab-dgo-yod-na (e);
'is it only English, like before; or have you got to learn other languages'.

This alternation in duration and quality can be treated as a correlate of the grammatical distinction, and does not need a prosodic system to account for it.

na/na'i is classified as z-Piece, but with long duration, openness, and backness (a:) as an exceptional exponent, appropriate to the non-Sentence-final Clause. The Alternative-Interrogative is, after all, an exceptional Particle (pp. 159-60).

The Indirect-Speech Particle se/ze (s) is peculiarly
difficult to classify in terms of the Quality system, because it is never characterized by a vocalic articulation; e.g.

par-khang vod-pas-se (-s) "have you a printing works";
bshad-go-red-se (-s) "you must explain";
var chibs-bsgwur mangs-se (-p), zhu-rog mangs 'please ask him to come in'.

There are, however, other Particles that can be characterized, in Fast-Tempo utterances, by absence of vocalic: nas/ni (n), gi/syi/kyi (y, ), ba/pa/za/nga/ra (Past) (p, m), ba/pa/ga/nga/ra (Nominalizing) (y, r), na (Conditional) (n) (21811, iii), e.g.

das sleb-ni (-n) 'when I got here';
de-'dras zer-gyi-'dur (-y-)'that is what they say';
tssha-grang a'u-tsa [vin-pa (-m) dra] 'the temperature seems all right'.

All these Particles are z-Piece. It therefore seems reasonable to classify se/ze as z-Piece too, with syllabic consonant (C) as an additional z-Piece criterion, but with the grammatical qualification that for the Indirect-Speech Particle a syllabic consonant is not merely a Fast-Tempo variant but the sole exponent of z.

Support for classifying se/ze as z-Piece comes from the prosodic classification of the Verb zer ('say'), with which se/ze seems to be associated, as z-Piece (or r-Piece)
(p. 348); cf. especially the z-Piece form sa of this Verb in:

*yag-go tsang-ni yong-ri-mi-
    dug-se (sa)'it is no good at all, they say',
in which sa has been confused with se/ze, and written se.
Quantity

The Quantity system is designed to account for certain of the differences in duration of vowel, together with associated differences in vowel quality, of the Verb Syllable of z Pieces (2121311), and for correlated variations in the features of certain following Particle Syllables; e.g. (i), the short vowels ə, ɔ, a/ʌ, and e/ɻ alternate with the long vowels yː, øː, eː, and eː respectively for the majority of zP Verbs, e.g. zhu/zhus (ʃə/ʃyː), 'offer', za/bzas (sa/sʌ/sɛː), 'eat', skye/skyes kʃi/kje/kjeː), 'grow'; (ii), short duration is associated with ə, e, a, ɔ, and ə, and long duration with ø, e, ø, and y, of which only e is common to both long and short series; (iii), the initial features of the Nominalizing-Particle Syllable pa/ba/ɡa/nɡa/ra alternate; e.g.

(i)

bka'-mol zhu (ʃyː) mchog  
" zhu (ʃə) dgos-kyi-red  
" zhus-pa-red (ʃyːː)  
" zhu-rayu (ʃə-)

The same degree of phonetic detail is shown in this as in the previous section (Quality, 2121311).
(ii)

`go-ta (kho-) go-gi-'dug te`

`na-nas (na-)`

`bzos (sø:) tshar-song`

`shkes (ce:) tshar-shag`

(iii)

`gdan-'dren zhus (jo:) gmang-song`

`thugs-phan bzos-pa (sø:be) [di-la'id]`

The Piece for which the Quantity system is stated may be monosyllabic or disyllabic. The monosyllabic Quantity Piece may be a Verb Word, e.g. `bka'-mol zhus (fy:)`

`mchog-gi-red-pa, 'we must have a conversation, must we not', za (sa) 'gro-vod, 'I am about to eat', shi (ʃt) tshar-song, 'it finished dying'; or it may be the initial Syllable (Verb Syllable) of a Verb + Particle Word, e.g. byed-thabs (tʃhɛ:) 'means of doing' (Bell), byas-'dug (tʃhɛ:-) 'it has been done', zhu-gi-yod (ʃo-) 'I offer'. The disyllabic Quantity Piece comprises the first two Syllables (Verb Syllable and Particle Syllable) of a Verb + Particle Word in which the Particle Syllable is the Nominalizing-Particle Syllable pa/ba/ga/nga/ra, e.g. `gdan-'dren zhus [i.e.zhu-ba] (jo:) gmang-song, 'he invited', bzo-ba (sø:) gmang-gi-vin-pa-'dra, 'he will probably produce', thugs-phan bzos-pa (sø:be)`
'the fact that he has benefited'.

The Quantity system is a two-term system: Short (s), Long (l), whence Short Piece (sP) and Long Piece (lP). The exponents of these two terms are stated first, at 21213121, for the monosyllabic Piece, and secondly, at 21213122, for the disyllabic Piece.

21213121. **Monosyllabic Piece**

a. Non-Clause-final

*short duration +*

i. aperture between close and half-close +

some contrality):  

ii. frontness/backness + half-openness):  

iii. frontness + openness):

b. Clause-final

*long duration +*

i. backness:  

ii. frontness + closeness/half-closeness):  

1

(long duration +

i. frontness + rounding):  

ii. " + spreading + half-closeness):  

iii. " + " + half-openness):  

1 Differences in the duration of vowel of the s Piece, and associated differences of quality, are dealt with at 21213123.
One of the s exponents (b.ii) is identical with one of the l exponents (ii), with the result that a
Clause-final Syllable characterized by (long duration + frontness + spreading + half-closeness) (e:) is ambiguous: it might be an example of the s Piece, e.g. sge-khung phye (tjhe:) 'open the window' (G. and R.), or of the l Piece, e.g. 'o-na gso-l-ja bzhes (je:), 'then please drink (H) tea (H)' (G. and R.). Apart from this one exponent, the features cited as exponents of s (i, e, a, o; e:, a:, o:, u:) and of l (e:, e:, o:, y:) could also be used as sources of the phonetic criteria by which these two terms are distinguished. Disyllabic Piece

The exponents of s and l that are applicable to the disyllabic Piece are the following:

s

i. (long duration + frontness + spreading), no consonant:

\[ e: e:; \]

ii. (long duration + backness), no consonant:

\[ o: o: a:; \]

iii. (short duration + frontness + non-rounding), consonant, vowel:

\[ t\text{be} \quad e\text{be} \quad a\text{be}; \]

iv. (short duration + backness + rounding), consonant, vowel:

\[ c\text{be} \quad a\text{be}; \]

1 Forms such as the sP figu-jep, bzhes-kyi-vod-pas, 'do you drink' (G. and R.), and the lP je:bere, bzhes-pa-red, 'you drank', require that the Verb bzhes should be classified as s/lP (p. 398); in which case the Imperative form je: is to be regarded as lP.
i. (long duration + frontness + spreading),
   consonant, vowel: e:be e:be;

ii. (long duration + frontness + rounding),
    consonant, vowel: o:be y:be;

E.g.

1. shi-ba (je:)
   phy-va (tjhe:)
2. mig lta-ba (ta:)
   bzo-ba (so:) m ang-gi-yin-pa \\
   gdan-'dren zhus [i.e. zhu-ba] (jo:) m ang-song
3. shi-ba (f tbe)
   las-ka byed-pa (tjhebe)
4. bzo-ba (so:be)
   khrud-pa (trobe) m ang-na

The status of s exponents (iii) and (iv) as
compared with (i) and (ii) has already been considered
All of the above disyllabic-Piece examples are grammatically analysable as Vb. + Nomzg. Part.; and the phonetic features of the Nomzg.-Part. Syllable $\text{pa/ba/ra/nga/ra}$ contained in them clearly can alternate according as the Piece is $s$ or $l$, e.g. $\text{bzo-ba (so:)}$, 'to make', $\text{bzus-pa (so:be)}$, 'to have made'; $\text{zhu-ba (jo:)}$, 'to submit', $\text{zhus-pa (sy:be)}$, 'to have submitted'; $\text{mig lta-ba (ta:)}$, 'to look at', $\text{mig bltas-pa (te:be)}$, 'to have looked at'. One might perhaps expect a similar alternation of phonetic features in the case of the homographic Verbal Particle (Past) $\text{pa/ba/ra/nga/ra}$; but, with a very few exceptions, the initial features of this Particle Syllable are constant, (labiality + voice + plosion/friction) ($b/\beta$), regardless of whether the form of the Verb is the $s$-Piece or the $l$-Piece, e.g. (SP), (sobe-), $\text{bzo-ba-red (sobe-)}$ 'they (generally) make', (LP), $\text{bzus-pa-red (sobe-)}$ 'they made'; (SP), $\text{mig lta-ba-red (ta:be-)}$ 'they (generally) look at', (LP), $\text{mig bltas-pa-red (te:be-)}$ 'they looked at'; (SP), $\text{bsrub-pa-red (sobe-)}$ 'they (generally) churn', (LP), $\text{bsrub-pa-red (sy:be-)}$, 'they churned'. There is therefore no case for incorporating the Verbal-Particle Syllable $\text{pa/ba/ra/nga/ra}$
in a disyllabic Piece, as was done in the case of the Nominalizing-Particle Syllable of the same spelling; but it is important not to overlook certain exceptions, in which the initial consonant of the Verbal-Particle Syllable does not have (labiality + voice + plosion/friction) (b/β) as a feature. The only Verbs to be exemplified in the exceptions are dgos/dgo/go, 'must' and 'gro (Auxil.), 'about to'; and it is of some interest that the features characterizing both Verb and Particle Syllable are similar to those stated as exponent (ii) for the s disyllabic Piece above, (long duration + backness), no consonant, (ɔː), e.g. dgos-[pa-red] (goːre), 'I want', (G. and R., altered), not *gobere; dgos-pa-ma-red (goːmare), 'I do not require' (G. and R., altered), not *gobemare; dgos-vod (goːyə), 'I need'; chība-bṣgyur gman 'gro'ī-vod-pa-red (droː:-), 'he is about to go, I think', not *drobe-.

Apart from the above exceptional forms, dgos/dgo/go is a regular zP Verb of the sP sub-type, e.g. dgos/dgo/go-gi-red, gaγyreː, 'he will need'; dgos/dgo/go-gi-'dag gaγyuːː, 'he needs'; for 'gro, see pp. 408-9.

All the sP and lP examples given above are of course also, and equally, zP examples; and every zP example can be sub-classified as sP or lP. Certain Verb forms
may, then, be designated sP, or lP, as being appropriate respectively either to the s or to the l Piece.¹

Certain sP Verbs are limited to exemplification in Short Pieces, and can therefore be termed sP Verbs; but the majority of sP Verbs can be exemplified in either Short or Long Piece, and are therefore classified as s/lP Verbs; i.e. these latter Verbs have both sP and lP forms. A complete list of all sP Verbs to be have been observed in the material studied is given at Appendix IV; the following Verbs are examples of this class of Verb: shi, 'die'; phye, 'open'; na, 'hurt'; e.g.

shi (ʃi) 'dod-kyi-'dug shi-gi-'dug (ʃi-) bu:shi-ba-red (ʃi-)
'he wants to die' 'he is dying' 'he died'

phye (tʃhe) chog-gi-'dug phye-gi-'dug (tʃhe-) phye-ba-red (tʃhe-)
'he may open' 'he is opening' 'he opened'

na (na) tshar-'dug na-gi-'dug (na-) na-ba-red (na-)
'he has finished being ill' 'it is hurting' 'it hurt'.

¹In the orthography the Short Piece is commonly indicated by final i, u, e, o, a, and _ in the Verb Syllable, and by initial b in the Particle Syllable pa/ba/ra/nga/ra, e.g. shi-ba, 'to die', na-gi-'dug, 'it hurts', bza'-ba, 'to eat'; the Long Piece is commonly indicated by final s in the Verb Syllable, and by initial p in the Particle Syllable pa/ba/ra/nga/ra, e.g. zhues, 'I offered', bzos-pa, 'to have made', skyes-pa-red, 'she gave birth to'.

A complete list of all s/lP Verbs to have been observed in the material studied is also given at Appendix IV; the following are examples of this type of Verb: bzo/bzos, 'make'; (b)za( )/bzaa, 'eat'; zhu/zhus, 'submit'; skye/skyes, 'grow'; e.g. (the sP examples are on the upper of each pair of lines, and the lP on the lower)

bzo (so) thub-kyi-'dug bzo-gi-'dug (so-) bzo-ba-red (so-)
'he can make' 'he is making' 'they (generally) make'
bzos (s$:) tshaw-song bzos (s$:) bzos-pa-red (s$:)
'he finished making' 'make it' 'he made'
za (sa) dgos-kyi-yod za-gi-'dug (sa-) za-ba-red (sa-)
'I have got to eat' 'he is eating' 'they (generally) eat'
bzas (s$:) tshaw-song bzas-pa-red (s$:)
'he finished eating' 'he ate'
zhu (sa) dgos-kyi-red zhu-gi-'dug (sa-)
zhus-pa-red (s$:) zhus-pa-red (s$:)
'he will have to submit' 'he is submitting'
'he submitted it'
skve (kje) thub-kyi-'dug skye-gi-'dug (kje-)
skve-shig (kje-) skyes-pa-red (kje-)
'it can grow' 'it is growing' 'put up (a prayer- 'it grew flag')
The two forms, sP and lP, of each of these Verbs require that long and short vowels be associated as follows:

- \( \text{\textit{\textcircled{\text{O}}/\text{\textcircled{\text{O}}}}} \): e.g. \( \text{\textit{sO/sO}} \), \( \text{\textit{sO}} \): \( \text{\textit{bzo/bzos}} \) 'make';
- \( \text{\textit{\textcircled{\text{A}}/\text{\textcircled{\text{E}}}}} \): e.g. \( \text{\textit{sa/sa}} \), \( \text{\textit{se}} \): \( \text{\textit{(p)za(')}/bzas} \) 'eat';
- \( \text{\textit{\textcircled{\text{A}}/\text{\textcircled{\text{Y}}}}} \): e.g. \( \text{\textit{sa}} \), \( \text{\textit{sy}} \): \( \text{\textit{zhu/zhue}} \) 'submit';
- \( \text{\textit{\textcircled{\text{E}}/\text{\textcircled{\text{E}}}}} \): e.g. \( \text{\textit{kje/kji}} \), \( \text{\textit{kje}} \): \( \text{\textit{skye/skyes}} \) 'grow'.

A conflict of evidence renders it doubtful whether the following should be added to the list:

- \( \text{\textit{\textcircled{\text{I}}/\text{\textcircled{\text{I}}}}} \): e.g. \( \text{\textit{sil}} \), \( \text{\textit{si}} \): \( \text{\textit{(bzi)}} \) 'get drunk'.

There are no examples of \( \text{\textit{bzi}} \) in the unscripted texts; in the scripted texts \( \text{\textit{ra bzi-zi-red}} \) (\( \text{\textit{sgire:}} \)) (G. and R.) and \( \text{\textit{ra bzi-nas}} \) (\( \text{\textit{si:nc}} \)) (Bell) (not \( \text{\textit{si:nc}} \)) suggest that \( \text{\textit{bzi}} \) is a sP Verb, like \( \text{\textit{shi}} \), 'die', and not an s/lP Verb; for, if the latter were the case, in a Word containing the Past Particle \( \text{\textit{nas/ni}} \) the Verb would be represented by its lP form, i.e. by \( \text{\textit{si}} \). On the other hand R. volunteered a lP form in the example \( \text{\textit{ra: si:s5, ra bzi-song}} \). There are no other likely sources of an association of \( \text{\textit{i}} \) with \( \text{\textit{i}} \) apart from the one Verb \( \text{\textit{bzi}} \).

Where a Verb has both sP and lP forms (e.g. sP: \( \text{\textit{so/sO, bzo}} \), 'make'; lP: \( \text{\textit{so:, bzos}} \), the short duration,
backness, and the degree of aperture, of $s\theta$ and $s\partial$, are ascribed to Shortness; the long duration, frontness, and half-openness of $s\theta:$, $b\zeta\zeta\zeta$, are ascribed to Length; and neither form is considered to be the basic, or the derived, form. Each of the four sets of examples given in the last paragraph but one is regarded in the same way, as exemplifying each the same lexical item under alternative prosodic conditions, of Quantity.¹

There is one s/lP Verb that is irregular from the point of view of the associated vowels:

\[
\begin{array}{c}
\text{s: byed (tjhe) dgos-kyi-red} & \text{byed-kyi-'dug (tjhe-)} \\
\text{'he must do'} & \text{'he is doing'}; \\
\text{'do'} & \\
\text{l: byas (tjhe:) tshar-song} & \text{byas-pa-red (tjhe:-)} \\
\text{'he finished doing'} & \text{'he did'.}
\end{array}
\]

Here, the sP vowels $\iota$ and $\epsilon$ are associated with a lP vowel $\epsilon$:, not $\epsilon$:, which latter would regularize this Verb on the model of skye (kjì/kje:) above; alternatively, in order to regularize it on the basis of the lP form tjhe:,

¹Tibetan orthography also associates these sets of vowels by using the same letter for each set in spite of differences in quality and duration: a $a/\lambda/\epsilon:$; (?) l/ı:; u $\delta/\gamma$; e $\epsilon/\iota/\epsilon$; o $\epsilon/\alpha/\epsilon$. 
For the s/IP Verbs it is necessary to give some account of the range of occurrence of the two forms in terms of the types of Clause in which each can be exemplified, and hence the sub-categories of Particle and Auxiliary Verb with which each is colligable.

The most prominent of the types of Clause in which IP forms are contained is the Past-Tense Clause; the IP form sub-category of Verb colligates with the Past-Tense sub-category of Particle (*byas, bzhin, nas/ni, yod, shag/zhag, med/mad, song, byung, 'dug*), including the Past-Tense Interrogative Particle (Special: pa; General: pas), within the Word, e.g.

\[ \text{skyes-byas (ce:d3e:)} \]  
'having originated';

\[ \text{las-ka byas-pa-yin (t\text{sh}e:bej\text{\text{\text{}}}\text{\text{\text{}}})} \]  
'I worked';

\[ \text{bag-leb ga-tshod bzos-pa (s\text{\text{\text{}}}\text{\text{\text{}}}ba:)} \]  
'how many loaves have you made' (G. and R.).

In addition the IP sub-category colligates with the Past-Tense sub-category of Auxiliary (*tshar*), e.g.

\[ \text{bzas (s\text{c:\text{\text{}}}tshar-song} \]  
'he finished eating';

\[ \text{bltas (te:} tshar-song \]  
 '" " looking';

\[ \text{zhus (fy:} tshar-song \]  
 '" " serving'.

The only other Auxiliary Verb to be exemplified in
the same Clause as the 1P form of the s/1P Verbs is

(m) chog, e.g.

\[\text{bka' mol ra-po zhus (jy:) mchog} \quad \text{"we must have a sort-of conversation";}\]

\[\text{bzos (sö:) mchog-gi-'dug} \quad \text{"he may make";}\]

\[\text{nyos (no:) "} \quad \text{"" buy";}\]

but see also the 5P form below.

The 1P form is also appropriate to Non-Sentence-final Clauses in which the Particles na, tsang, and na-yang/na'i are exemplified, e.g.

\[\text{yag-go byas-na (tjhe:ne)} \quad \text{"if we do well";}\]

\[\text{mig ma bltas-na (tæ:ne)} \quad \text{"if you do not look";}\]

\[\text{byas-tsang (tjhe:dzã)} \quad \text{"therefore".}\]

It also colligates with the Generalizing Particle (yong), e.g.

\[\text{mnga-chha bzhes-yong (je:j5:)} \quad \text{"they eat sweet things";}\]

\[\text{tsön-thog ga-re skye-yong (ee:j5:)} \quad \text{"what crops are grown" (Bell)}\]

\[\text{bțas-ma rnga-yong (ne:j5:)} \quad \text{"they reap the crop".}\]

In Affirmative Imperative Sentences, the 1P form is the appropriate form for the majority of s/1P Verbs (two-form Verbs), which do not have a separate Imperative form; and for such Verbs the 1P sub-category is therefore colligable with the Imperative sub-category of Particle (shig, dang, a), e.g.
gsol-ja zhus (ʃy:) 'offer tea' (G. and R.);
na-bza' bzhes (ʃe:) 'put on (your) clothes';
bzos-shig (ʃø:ʃi) 'make it!'

There are however four s/IP Verbs (three-form Verbs) that have a separate form for Affirmative-Imperative Clauses:
sø(:) bzo 'eat'; cf. sa/sα, (b)za(′); se:, bzas;
tø: ltos 'look'; " ta/tα, lta; te:, bltas;
rø: rngos 'mow'; " nα/nα, rnga; ne:, brngas;
tʃhi: bvis 'do'; tʃhe/tʃhi, byed; tʃhe:, byas;
tʃhi-

While accepting the last two Imperative forms (rngos, bvis) for LT, R. preferred for his own usage the sP form nα (rnga) to nø: (rngos), and the sP form tʃhe/tʃhe: (byed) to tʃhi:/tʃhi (bvis); e.g.

btsas-ma rnga-shig (nαʃi). 'reap the harvest' (G. and R., altered);
atsang-ma byed (tʃhe:). 'make it clean' (G. and R.);
mu-zi ma bried-pa byed-a (tʃhe?α:). 'do not forget the matches' (G. and R.).

Except where the spelling bvis is used in the printed text, R. invariably used tʃhe/tʃhe: (byed).

Either sub-category of the s/IP Verb may colligate with the sub-category of Nominalizing Particle comprising
the one member pa/ba/ga/nga/ra, with the result that these Verbs have two Verbal Nouns, e.g. bzo-ba (so:), (rarely sobe), 'to make', bzos-pa (so:be), 'to have made'; zhu-ba (jo:) (rarely fobe), 'to submit', zhus-pa (fy:be), 'to have submitted'; barub-pa (so:) (rarely sobe) 'to churn', bsrubs-pa (sy:be), 'to have churned'; byed-pa (tjebe), 'to do', byas-pa (tje:be), 'to have done'; khrud-pa (tro:be), 'to wash', khrud-pa (trg:be), 'to have washed' (cf. pp. 339–40), e.g.

khyod de-'dra ma [byed-pa] (tjebe) 'your not doing like that' (Bell, altered);

kho yag-no ma byas-pa (tjhe:be) 'with his not having behaved well';

sP: bzo-ba (so:) gmang-rig-yin-pa 'dra 'he will probably produce';

1P: gzhung-las thugs-phen bzos-pa (so:be) 'the fact that it has been beneficial to the Government too'

sP: zhaba-phyi zhu-ba (jo:) gmang-nga-yin-tsang 'since you have served';

1P: snyan-zhu zhus-pa (fy:be) 'di 'his having informed'.

It is the sP sub-category of Main Verb that colligates with the Honorific sub-category of Auxiliary (gmang), as in the two examples, bzo-ba and zhu-ba above; either can colligate with the Postposition ('di), the 1P form in Past-Tense Clauses, and the sP in non-Past-Tense.
The sP sub-category is also colligable with a sub-category of Past-Tense Particle (ba/pa/qa/nga/ra), e.g. 
(phal-cher) bod-la ja bsrub-pa-red (sab¢-).

"In Tibet they (generally) churn tea";

(phal-cher) su-'i-tsa-lan-la chu-tshod 'khor-lo bzo-ba-red (sab¢-);

"In Switzerland they make watches";

(phal-cher) rtsam-pa bza'-ba-red (sab¢-)

"They (generally) eat barley cakes";

and in this respect too the sP and LP forms overlap; for the LP form also colligates within the Word not only with this sub-category (ba/pa), but also with every other sub-category of Past-Tense Particle; e.g.

kha-sang ia cig bsrub-pa-red (sy:be-).

"They churned tea the other day."

zla-rnying atom bomb cig bzos-pa-red (s¢:be-).

"Last year they made an atom bomb."

'bras btsos-nas, bzas-pa-red (s¢:be-).

"They cooked rice and ate it."

The Particle ba/pa/qa/nga/ra is exemplified in all three examples of both the above two groups, the Verb bsrub/bsrus in the first example of each group, the Verb bzo/bzas in the second, and the Verb (b)bza(')/bzas in the third; but it is not only in translation that these
combinations of sP form and lP form with ha/pa/ga/nga/ra
differ from each other: quite apart from other levels
of analysis, at the Grammatical Level the lP form
colligates within the Clause with the Past-Tense sub-
category of Noun e.g. (kha-sang, 'the other day';
zla-rnying, 'last year'); the sP form does not.

Both sP and lP sub-categories can, as has been
shown in the preceding paragraph, colligate with the
sub-category of Nominalizing Particle that comprises
the one member pa/ba/ga/nga/ra, and with the sub-category
of Past-Tense-Clause Particle that comprises pa/ba/ga/nga/ra,
but this is exceptional; for, for the most part, sP
and lP forms are complementary as regards colligability.
Apart from these, the sP form is contained only in
non-Past-Tense Clauses, in which it colligates within
the Word with the non-Past-Tense sub-category of Verbal
Particle: gi/gyi/kyi, dus, myong/nyung, ga/ka/kag
(Final), e.g.

* tsha-ba skye-gi-'dug-gas (cīgl-)
  'have you a fever'
  (G. and R.);
* byed-dus (tʃhūdː)
  'when I do';
* 'gro-myong-ngas (droŋŋ-)
  'have you ever been'
  (Bell).
* chos byed-ga (tʃhēga), 'gro-gi-vin.
  'I am going (there) in
  order to study religion'
  (G. and R.)
It is the sF form that is appropriate to Negative Imperative Clauses; e.g.

'gor-po me byed (tfhe) 'do not delay' (G. and R.);
nga'i gdong-la me 'gro (dro) 'do not go ahead of me' (G. and R.);

The sP form colligates within the Phrase with a sub-category of Auxiliary Verb that comprises:
dgos/dgo/go, 'must', 'gro, 'about to', thub/thugs, 'can',
qmang (honorific), 'dod, 'want to', shes, 'know how to',
mkhyen, 'know how to', ran, 'ready to', e.g.
zhabs-phyi zhu (fo) thub-pa byed-dgos 'shall you have to be
-red dang able to help with';
las-ka byed (tfhe) dgos-kyi[-yod]. 'I have to work'.
za (sa) ran'dug. 'It is time to eat'.

Examples have also been recorded that include the Auxiliary Verb (m)chog; e.g.

bzo (so) chog-gi-'dug 'he may make it';
ze (sa) 'he may eat it';
nyo (no) chog-gi-'dug-gas 'may he buy it'.

Here again there is an overlap of the sP and LP forms; for the LP form is also exemplified in Clauses that include (m)chog and appears to be more common.

Examples have already been given of the colligation of the sP sub-category of Main Verb with the sub-category of Nominalizing Particle that comprises the single member
pe/ba/ka/nga/ra, which it shares with the LP; all the remaining members of the Nominalizing-Particle category (except that there are no relevant examples of ta in the material) can be grouped into another sub-category that is colligable with the sP sub-category but not with the LP: yag/ya, rgyu, du, nyan/mkhan, rtsis, mus, rog, dwogs/dog/rdog, long, bstangs, thabs; e.g.

bka'-mol zhu-rgyu (sog) 'anything further to say';
dwangs-shes byed-nyan (tšep:e:) 'someone skilled in';
zhu-rog (soro:) snang 'please ask him'.

On page 398 certain vowels were associated with each other, a vowel with long duration being appropriate to the l form of the Verb, and a different vowel, or different vowels, with short duration, being appropriate to the s form; a similar association can also be made for certain initial consonants, velar-nasal (ŋ) and palatal-nasal (n). For the Verb rnga/brngas 'mow', which is also classified as a e Verb in terms of the Labialization system (2121321), with s forms ɲa and ɲA and an l form ɲɛ:, velar nasality (ŋ) is part of the exponency of s, together with either (openness + frontness) (a) or (half-openness + backness + spreading) (ʌ), while palatal nasality (n) is part of the exponency of ɬ, together with (half-openness + frontness + spreading) (ɛː);
e.g.

s:  **btaas-ma rnga-zhig** (ŋa-) 'mind you reap the crop'

"  **rnga-gi-'dug** (ŋʌ-) 'he is reaping the crop'

l:  "  **brngas-yong** (ŋɛː-) 'they reap the crop'

"  **brnas-pa-red** (ŋɛː-) 'they reaped the crop'

For R. velar nasality (ŋ) and (frontness + spreading) (ɛː/ɛ/ɛː/iː/ʌ) are not a possible Word-initial sequence.

Before leaving the s/IP Verb an irregular Verb should first be noticed: **'gro/phyin/rgyugs**, 'go'. **'gro** (dro-/dra-) can be classified as a member of the sP sub-category of Verb: it is exemplified in Vb. + Part.

Words in which the Particles are members of the sub-category of particle that colligates with the sP sub-category of Verb. e.g.

colligation with non-Past-Tense Particle (gi)

**nyi-ma 'phrog-lags 'gro-gi-red-pa** (drogy-).

'The day will get wasted, you know.'

colligation with sub-category of Past-Tense Particle (ba)

(phał-cher) **Underground-la 'gro-ba-red** (drobe-).

'They (generally) go by Underground.'

For P., on the other hand, the sequence ŋɛː is possible initially in Words; and **rnga/brngas** is characterized by velar nasality in both l Piece and s Piece.
Negative Imperative Clause

nga'i gdong-la ma 'gro (dro).
'do not go ahead of me' (G. and R.).

If 'gro were an s/lP Verb, it would have an lP form *dro:,* 'gro: which would be exemplified in Words containing the same sub-categories of Particle as those listed as colligable with the lP sub-category of an s/lP Verb above; but there is no such form. The vacuum is in part filled by a form phyin, which is to 'gro at the Grammatical Level what nyo is to nyo, bzos to bzo, and skyes to skye; e.g.

nga-'tsho lon-sgron-la [mar] phyin.
"We went off to London."

rgyal-rtse bar-du phyin-pa-red.
'He went as far as Gyantse.'

The form phyin differs, however, from the lP form of the majority of s/lP Verbs in that it cannot be contained in an Affirmative Imperative Clause (see rgyugs, PP. 350-1).

213213. Duration (and Vowel Quality) of sP Verb Forms.

In the course of stating the Quantity system a difference in vowel duration with, in most cases, an associated difference in vowel quality was noticed for the exponents of the s Piece according as this Piece was or
was not Clause-final (21213121); cf. also:

\[
\begin{align*}
\text{phye:} & \begin{cases} 
\text{age-khung} & \text{phye (tjhe:)} \quad \text{'open the window' (G. and R.);} \\
\text{phye (tjhe)} & \text{cho-gi-dug} \quad \text{'he may open it'}; \\
\end{cases} \\
\text{zo:} & \begin{cases} 
\text{brae 'di zo (so:)} \quad \text{'eat this rice'}; \\
\text{'' zo-shig (so-)} \quad \text{'mind you eat this rice'}. \\
\end{cases}
\end{align*}
\]

These variations in vowel duration, and such differences in vowel quality as are associated with them, are related to place in the Clause, to whether the verb Syllable in question is, or is not, final in the Clause (or, alternatively, contained in a Clause-final disyllabic Word in which the Particle category is represented by the Indirect-Speech Particle ze/se).

The phonetic features to be associated with the two types of environment, as exponents of s in each, are:

a. **Clause-final**

(long vowel duration +

i. closeness):

  \( i : \)

ii. half-closeness):

  \( e : \)

iii. half-openness + backness + rounding):

  \( o : \)

(there are no examples of \( u : \) and \( a : \) in the material; but analogy leads one to expect them);
b. non-Clause-final.

(short vowel duration +

i. aperture between close and half-close, with some centrality):

ii. half-openness + frontness):

iii. " + backness):

iv. openness + frontness):

e.g.

a.

i. gtsang-ma byis (t∫hi:) 'clean it';

ii. rtsed-mo rtse (tse:) 'play a game';

sge-khung phy(e) (t∫he:) 'open the window'

(G. and R.);

iii. 'bras 'di zo (so:) 'eat this rice';

zur-la ma 'gro (ndro:) 'do not go near the edge' (G. and R.);

b.

i. zhu (∫) agoa-kiy-red

phrog-lag 'gro-gi-red-pa (dro-) 'you will have to submit it'

gtsang-ma byis shig (t∫hi-) 'mind you clean it';

ii. sgo phy(e) (t∫he) chog-gi-

rtsed-mo rtse-shig (tse-) 'you play a game';

dug
iii. 'gro (dro) dgos-kvi-red
'bras 'di zo-shig (so-)
mig lta-rgyu (ta-)

iv. mig lta (ta) 'gro-'dug

rtsam-pa bza'-ba-red (sa-)

'you will have to go';
'mind you eat this rice';
'to be looked at';
'he is about to have a look';
'they usually eat barley cakes'.

With one exception (œ) the vowel qualities that may be accompanied by long duration (i e œ) are different from those which may be accompanied by short (i œ e œ a); the long and short vowels are associated as follows:

i. i: and i, e.g. byis (tʃiː); byis-shig (tʃiʃiː);

ii. e: and e/i, e.g. phye (tʃeː); phye-shig (tʃeʃiː);

phye-qi-'dug (tʃiɡiː-);

iii. œ and œ/œ, e.g. ma 'gro (ndro:); 'gro (dro) dgos-kvi-red;

'gro-dus (drad)'y).

Short vowel duration is a feature of the sP form of each Verb when not Clause-final (except for Clause-final Verb + Particle Words in which the Particle is the Indirect-Speech Particle 'ze/se); long vowel duration is a feature of it when Clause-final, and also when Clause-final but for the Indirect-Speech Particle 'ze/se, with appropriate vowel qualities in either case.
Initial System

Each of the terms of the eight-term quality system (21213111) shows some degree of variation in exponence; and none of them has a single exponent. The degree of variation in fact ranges from the two exponents stated for d, at 212131112, (1f) and (2), for m, at 212131112, (1d), to the seven stated for b, at 212131112, (1a), (1d), (2).

Some of these variants are accounted for through the Juncture system (21213114) and some through the Initial system. The latter system accounts for such variation in the final of the Verb Syllable as (i) nasality v. non-nasality, e.g.

(ŋ) laŋziː: lag-'dzing hand-to-hand fighting, cf. (γ) lāŋjuː: lag-shubs hand-covering, glove; (m) tšmāːŋ: stabs-mthun [? suitable occasion], cf. (p) tʃhɪdʒp byed-stabs opportunity for doing, and (ii) long v. short vowel duration, e.g. (øː) ga-re yod-pa (joːbaː:) 'what have you got,' cf. (ø) yod-dwogs (jendoː:) kha-po red 'he may have got'.

It is not, however, solely in order to account for such alternations in Syllable-final feature as these that the Initial system in set up. It owes its name to the fact that it also deals with Syllable-initial features.
There are Syllables that, when they are in Intraverbal Junction with a preceding Syllable, are invariably characterized by a single initial consonant e.g. m, d, dz: others, in contrast, can be characterized (in the appropriate types of Quality Piece) by an initial sequence of consonants, e.g. a labial nasal and either dental or velar plosion, dorso-alveolar affrication, or alveolar friction (md mg mdz mz), or a homorganic nasal and either dental, velar, or labial plosion, dorso-alveolar or apico-alveolar affrication, or alveolar friction (nd ng mb pdz ndr nz). The Initial system accounts for these Syllable-initial features as well as for the Syllable-final features referred to in the preceding paragraph; and, since two Syllables are concerned, the system is set up for a disyllabic Piece, the two Syllables of which are in Intraverbal Junction.

The Initial system comprises five terms, m, n, b, g, and z. Three of these terms, m, b, and g, are, as an aide-memoire, named from the corresponding sngon-'jug m, b, and g by which each is regularly represented in Tibetan orthography; but the n term is regularly represented in Tibetan orthography by the typographically inconvenient symbol _ , and has therefore been named n from nasality, a prominent feature of the exponent of n. The remaining term is named z from zero: it has none of the nasal, or the labial- or velar-
stop, features that form part of the exponent of the other four terms of the Initial system, and is sometimes indicated in the orthography by absence of *sngon-’jug*.

All five terms of the Initial system are exemplified in the disyllabic Noun Piece; but only the n and the z terms are represented in the Verb + Verbal Particle, Verb + Nominalizing Particle, or Verbal Particle + Verbal Particle, types of Piece. Since only two terms of the Initial system are in fact exemplified in these three Verbal-Phrase grammatical types of Piece, it would clearly be possible to state two separate Initial systems, a two-term system for these three grammatical types of Piece, and a five-term system for others; but economy in statement makes it preferable to treat the five-term system as applicable to these three grammatical types of Piece as well, and to regard the absence from them of examples of the g, b, and m terms as merely fortuitous: the number of Particles concerned is in any case small (fourteen Nominalizing and thirty-two Verbal Particles), and so too is the number of lexical items that can be classified as g-Piece, m-Piece, or b-Piece.¹

¹A g Initial Piece, for example, contains one or other of only three lexical items: *scig* 'one', *mvyis* 'two', and *gsun* 'three'; e.g. *tʃɔqtsiː bcu-segic* 'eleven', *tʃɔmpːiː bcu-mvyis* 'twelve', *tʃɔksɔm bcu-gsun* 'thirteen'. These three are, therefore, the only lexical items that can be classified from the Initial system as g-Piece.
It is not really surprising therefore that there should be this absence of examples of the g, the m, or the b type of Initial Piece from some grammatical types of Initial Piece, or that there should be only three Particle lexical items classifiable as n-Piece, and none as g-Piece, m-Piece, or b-Piece.

In the Verb + Particle type of Initial Piece the order of grammatical categories is Verb first and Particle second, except for Pieces containing one of the two Pre-Verbal Particles ma/mi (Negative) and a (Dubitative) (211142) and a member of the Complement sub-category of Verb. In consequence, in the Verb + Particle Piece, and therefore in the Verbal Phrase, a Verb Syllable cannot be the second Syllable of a (disyllabic) Initial Piece, and cannot therefore be classified in terms of the Initial system (as n-Piece or as z-Piece), apart from Pieces containing one of the two pre-Verbal Particles initially in the Word; the number of Verbs that can be exemplified in a Piece of the latter type is very small; and is limited to members of the Complement sub-category of Verb (vöd, vin, 'dug, red, vong, byung), e.g. a-vin, 'I doubt whether I am'; a-vöd 'I doubt whether I have'; mi-'dug, 'it would not be'; ma-byung, 'it was not'.

It would be wrong, however, to conclude that, apart
from these eight items, Verbs cannot be given an Initial-
system classification; for there is a grammatical type
of Initial Piece in which a Verb lexical item occur as
second Syllable, and can therefore be classified. This
type of Piece is the (disyllabic) Noun: some disyllabic
Nouns are compounded of a Verb Syllable and another
Syllable, e.g. (i) bsgyur, 'alter' in skad-bsgyur, 'interpreter',
and phebs, 'come', in phyag-phebs, 'arrival'; (ii) gsung
'speak', in gsung-skad, 'speech', and phebs, in phebs-lam,
'road'; others (iii) are even compounded of two Verb
lexical items, e.g. chibs, 'ride' and bsgyur 'alter', in
chibs-bsgyur 'coming'/going', or bzo, 'make', and blta,
'look', in bzo-blta, 'appearance'.

Where the disyllabic Noun is compounded of two Verb
lexical items, as in (iii) above, or of a Verb and a
non-Verb with the Verb Syllable first, as in (ii), then
variant phonetic features of the first (Verb) Syllable
need to be accounted for, and are accounted for, through
the Initial system, in precisely the same way as this
system is used to account for variation in the phonetic
features of Verb Syllables in the Verb + Particle Piece
(pp. 425-8); e.g. -b', +t, -m for chibs 'ride' in
chibs-bsgyur tʃtʰb'jʊ: 'coming'/'going', chibs-dpon
tʃtʰb'jʊ: 'head groom', chibs-smad tʃh₁(m)me: 'crupper',
chibs-'gros tshumdrə: 'amble'; or -ŋ', -g, -o: , -n, for
tshogs in tshogs-pa tshog'ba/tsho:ga 'to assemble',
tshogs tsho: 'assemble!', tshogs-mchod tshonmdʒø: ¹

[religious gathering in Lhasa in second month].

Where, on the other hand, it is the second Syllable
of the disyllabic Noun that is a Verb lexical item, as in
(i) and (iii) above, then that second Syllable can be
classified in terms of the Initial system according to
the type of Initial Piece in which it can be exemplified.

For the purpose of stating the Initial system in
relation to Verb lexical items it is, thus, necessary to
draw examples not merely from the Verbal Phrase (Verb +
Particle word, Particle + Particle Word), but also from
the Nominal Phrase, (20, 051), from Noun and from
Noun + Particle Words in which the Noun is disyllabic.

Examples of the exponents of the n and z terms of
the Initial system can be given from both Verb + Particle,
Verbal Particle + Particle, and (disyllabic) Noun Pieces;
their exponents are therefore stated first (21213131, m;
21213132, z). The exponents of the m and the b terms
are stated next (m, 21213133; b, 21213134); they
concern the Verb, but not the Verbal or the Nominalizing

¹Also tshommdʒø:
Particle. The remaining term, the g, is not concerned with either Verb or Particle but is nevertheless dealt with here in the thesis in order that the Initial system should not be stated piecemeal, and that exponents and examples of each term should be near enough for easy comparison. The space taken up by the g term is in any case very small (pp. 491-5).

21213131. n

The exponency of the n Initial term varies with the type of (disyllabic) Quality Piece and Juncture Piece; the Quality system (z, g, n, d, n, b, m, r; 212131112) and the Juncture system (2121314) are therefore used as a framework within which to present the exponents of n.

Since the purpose of both the Initial system and the Juncture system is largely to account for variation in the phonetic form of the first-Syllable lexical item of the Piece, the exponents of the terms of this system, in phonetic transcription, are shown first in the form of a table, so that they may be seen at a glance, and so that they, and through them the n term of the Initial system, can be compared with the exponents of other terms of the Initial system:
<table>
<thead>
<tr>
<th>Junct.</th>
<th>z Piece</th>
<th>g Piece</th>
<th>η Piece</th>
<th>d Piece</th>
<th>n Piece</th>
</tr>
</thead>
<tbody>
<tr>
<td>p:</td>
<td>( \frac{v}{e/} )</td>
<td>( \frac{v}{a/} )</td>
<td>( \frac{v}{a/} )</td>
<td>( \frac{i}{e/} )</td>
<td>( \frac{i}{e/} )</td>
</tr>
<tr>
<td>t:</td>
<td>( \frac{v}{nd} )</td>
<td>( \frac{v}{\eta/} )</td>
<td>( \frac{v}{nd} )</td>
<td>( \frac{v}{nd} )</td>
<td>( \frac{v}{nd} )</td>
</tr>
<tr>
<td>k:</td>
<td>( \frac{v}{ng} )</td>
<td>( \frac{v}{ng} )</td>
<td>( \frac{v}{ng} )</td>
<td>( \frac{v}{ng} )</td>
<td>( \frac{v}{ng} )</td>
</tr>
<tr>
<td>c:</td>
<td>( \frac{v}{ndz} )</td>
<td>( \frac{v}{\eta/} )</td>
<td>( \frac{v}{ndz} )</td>
<td>( \frac{v}{ndz} )</td>
<td>( \frac{v}{ndz} )</td>
</tr>
<tr>
<td>tr:</td>
<td>( \frac{v}{ndr} )</td>
<td>( \frac{v}{ndr} )</td>
<td>( \frac{v}{ndr} )</td>
<td>( \frac{v}{ndr} )</td>
<td>( \frac{v}{ndr} )</td>
</tr>
<tr>
<td>ts:</td>
<td>( \frac{v}{nz} )</td>
<td>( \frac{v}{nz} )</td>
<td>( \frac{v}{nz} )</td>
<td>( \frac{v}{nz} )</td>
<td>( \frac{v}{nz} )</td>
</tr>
</tbody>
</table>
i. the range of vowels appropriate to the first Syllable are shown at the head of the column; lower down in the column they are represented by $V$, except that in one instance $(c\eta)$ alternative vowels ($\ddot{a}: 5: $) appropriate to Fast Tempo utterances have had to be distinguished.

ii. Where alternative features are symbolized for the same exponent, the lower one is appropriate to Fast-Tempo utterances only, e.g.

$$(tg) \ V \left[ \begin{array}{c} \eta \\ \eta \\ \dot{a}: /5: \end{array} \right]$$

iii. In the available material there are no examples of the following: $(t), \eta$ Piece; $(k), \eta$ Piece; $(c), m$ Piece; $(\ddot{c}s), m$ Piece.
The exponents of n are, by type of Juncture Piece (i - vi; p, t, k, c, \( \tilde{r}, \tilde{ts} \)) and by type of Quality Piece (z, g, \( \eta \), d, n, b, m, r):

1. p Juncture

z: \( 1/\varepsilon/a/\Lambda/\circ/\circ \) (lab. + nas.), (lab. + plos. + voice).\(^1\)

g: \( 1/a/\Lambda/\circ/\circ + \text{short dur.} \), (nas \{vel.\}) (lab. + plos. + voice)

\( \eta \): \( 1/a/\Lambda/\circ/\circ + \text{short dur.} \), (nas \{vel.\}) (lab. + plos. + voice)

d: \( 1/\varepsilon/\varepsilon/\varepsilon/y + \text{short dur.} \), (lab. + nas.), (lab. + plos. + voice)

\( n \): \( 1/\varepsilon/\varepsilon/y + \text{short dur.} \), (lab. + nas.), (lab. + plos. + voice)

b: \( 1/\varepsilon/\circ/\circ \), (lab. + nas.), (lab. + plos. + voice)

m: \( 1/a/\Lambda/\circ/\circ \), (lab. + nas.), (lab. + plos. + voice)

r: \( 0/\varepsilon/a/\Lambda/\circ/\circ + \text{short dur.} \), (lab. + nas.), (lab. + plos. + voice)

\(^1\) In 212313 the following abbreviations are used: vow. = vowel, dur. = duration, lab. = labiality, plos. = plosion, vel. = velariry, occ. = occlusion, nas. = nasality, fric. = friction, apico-alv. = apico-alveolar, dent. = dentality, dorso-pal. = dorso-palatality, aff. = affrication, pal. = palatality, liq. = liquidity, sib. = sibilant, voiceless, cor. = coronality, apic. = apicality, syll. = syllabicity, prev. = prevelarity, asp. = aspiration, non-asp. = non-aspiration.
e.g.

z: phyag-'bul
    tshamby: salutation

rtsa- 'phar
    tsamba: pulse-beat

me- 'bar
    memba: fire-lighting

g: gzig- 'bum
    tshurbom hundred thousand

n: rgyang- 'bud
    (γṇby:) banishment

    gangs- 'bebs
    khanbe: snow-making

    khambe: snow-making

d: zhal- 'bag
    semba: mask

    gus- 'bangs
    khymbā: your humble subjects

n: mun- 'bangs
    pambi: master and subjects

b: zhabs- 'phôngs
    jymbā: anus

    chab- 'bangs
    tshymbā: subjects

m: khom- 'bog
    khombo: leather bag

r: char- 'bebs
    tshambe rain-making

'bar- 'bur
    bambu: uneven

(or bag), of which 'bul/phul, 'phar, 'bar, and 'bud are
Verbs, can be exemplified in the n-Initial p-Juncture
Piece as second Syllable, and are therefore classified
as n-Piece. (App. VI).

1 Also ḡṇbi:.
**ii. t Juncture**

z: vow., (dent. + nas.), (dent. + plos. + voice)

\[ \text{g: (vow. + short dur.), (nas. + \{vel.\},} \{\text{dent.}\}, (dent. + plos. + voice) \]

\[ \text{d: (vow. + short dur.), (dent. + nas.), (dent. + plos. + voice) \}

\[ \text{n: (vow. + short dur.), (dent. + nas.), (dent. + plos. + voice) \}

\[ \text{b: vow., (lab. + nas.), (dent. + plos. + voice) \}

\[ \text{m: \text{vow.}, (lab. + nas.), (dent. + plos. + voice) \}

\[ \text{r: (vow. + short dur.), (dent. + nas.), (dent. + plos. + voice) \}

\[ \text{e} \text{.g.} \]

\[ \text{z: \text{da}-\text{ld}a} \text{ thanda: now} \]

\[ \text{thugs-’dod} \text{ thand:y: wish} \]

\[ \text{g: lcags-md} \text{ tjand: knitting needle} \]

\[ \text{tshogs-’du} \text{ tshonde: assembly} \]

\[ \text{d: rjes-’dod} \text{ dzende: pursuit} \]

\[ \text{gos-l} \text{d} \text{ang} \text{ khend: dress-length} \]

\[ \text{n: tshon-mdog} \text{ tshendo: colour} \]

\[ \text{mikhy} \text{ mkhyen-l} \text{dan} \text{ chend: wise} \]

\[ \text{b: s} \text{r} \text{ab-’thug} \text{ tr} \text{edm} \text{u: thickness} \]

\[ \text{rgy} \text{ab-mdun} \text{ jmd: back and front} \]

\[ ^1 \text{Here, and in the rest of section 21213131, vowels are as given for p Juncture (21213131. i) unless otherwise stated.} \]
On corresponding grounds to those which led to the classification of 'bul/phul, 'phar, 'bar, etc. as n-Piece (213131131), the following can be classified n-Piece (Appendix VI): lta, (?)rting, 'thug, mda', 'arrow', mdangs, mde, mdog, mdun, mdag, mdung, mdud, 'dun, 'dum, 'du, 'don, 'debs, 'ded, 'dod, ldangs, lde, ldong, ldan, ldab, zla 'moon', 'spouse'; 'du, 'ded, 'dod, and ldang are Verbs.

The examples from which these lexical items are taken are disyllabic-Noun; it is also possible to draw examples from the Verbal Phrase, from Words of the type Verb + Particle or Particle + Particle;

e.g.

d: mchod-dwogs (tjonدو::) kha-po red he may possibly drink it
     yod-dwogs (jondo:) " " " " " " have it

n: yin-dwogs (jundo:) " " " " " be

z: 1. 'gro-dwogs (dronدو:) kha-po red " " " " go 2

1 R. was willing to accept both the n Initial Piece ɲandī: and the z Initial Piece ɲandī: for snga-rting 'sooner or later'.

2 Verb + Particle examples of the other types of Quality Piece (g, ɲ, b, m, r) from other LT speakers (there are none in the material from R.), and particularly from Mrs. Tarian (pa-ring lha-lcam sku-zhog), show the same features as for disyllabic-Noun examples; e.g. (z) ga-dwogs (sando:);
     (g) gzigs-dwogs (sindo:); (b) slab-dwogs (lxmdo:); (m)
     zin-dwogs (sumdo:); (r) bar-dwogs (tjendo:).
ii. la, mi-'dug (mindu:)

no, there would not be

he cannot speak

he cannot speak

it would be surprising, would it not

it would be surprising, would it not

there has not been at all

The second Syllable of an n Initial of one of

these Verbal-Phrase grammatical types must be one of the

following: dog/dwogs (Nominalizing Particle), 'dug

(exx. z, ii-iii, Third-Person Particle; iv, Verb

Complement; v, Perfect Particle); all four lexical

items can therefore be classified as n-Piece. A Piece

comprising any of these four together with a preceding

Syllable in Intraverbal Junction with it must be an

n Initial Piece; and a variant phonetic form of the first

Syllable lexical item of the Piece is its n-Initial-

Piece variant. (pp. 499-500)

Where the first Syllable of the Piece is the Negative-

Particle Syllable ma/mi (exx. z, ii-v), the vowel of that

Syllable is characterized by frontness, spreading, and

a degree of aperture between close and half-close (ι);

i.e. the variant of ma/mi appropriate to the n Initial

Piece is mt (cf. 212131311, ma/me; 2121324, me).

In Pieces in which the second Syllable is one of

the two Particles 'dug (Third-Person, Perfect) Syllable-
initial nasality (η) is invariably present where the preceding Syllable is the Negative Particle (ma/mi) or the Past Particle ba/na/na/nga/ra, e.g. bris thub-
na-'dug (-bəndu), 'he would have been able to write';
zer 'gro-ba-'dug (-o:ndu), 'he is about to say'. This
nasality has also been observed where the preceding
Syllable is not either of these, but (i) the non-Past
Particle gi/gyi/kyi, preceding the Third-Person Particle
'dug', or (ii) a Verb, preceding the Perfect Particle 'dug;

   e.g.
   i. na 'dod-kyi-'dug (-gəndu:) 'he wants to be ill'
      (G, and R.)
      mgo na-zi-'dug-gas (-gəndog-)
      'does your head ache'
      (G. and R.)
   ii. dmag-dpon sku-gzhogs bzhugs-'dug-
      gas (fungdog-)
      'is the Commanding Officer at home'
      (G. and R.)
      gangs-rud-kyis khyer-'dug
      (k'jendo:)
      'an avalanche carried them away' (G. and R.);

but such examples as these are exceptional and are
probably better treated as Reading-Style forms (all four
were read from a book). The following examples, of the
same grammatical types as those at (i-ii) above, are
much more representative of LT; in them 'dug' is not
characterized by nasality:
iii. sgrigs-kyi-'dug (-g'du:) 'he fastens it'

'di-'dras zer-kyi-'dug (-g'du:) 'that is the sort of thing they say'

iv. skud-pa 'di chad-'dug (tjhe:du) 'the needle has snapped'

zhed-drag byas-'dug (tjhe:du) 'it is commonly said'

In other words the two lexical items 'dug' appear to fluctuate in LT, showing the characteristic features of the n Initial Piece where mi or ha/pa/ra/nge/ra precede, but usually the characteristic features of the z Initial Piece (31.313) otherwise, at least in an unstudied utterance.

The Particle Syllable$s_zi/svi/kyi$ is invariably characterized by an i vowel quality in those examples in which a following Syllable 'dug is characterized by nasality, as in the examples at (i) above; and this quality is also appropriate to examples in which there is no such nasality, as in the examples at (iii), though in the latter the i quality is less usual than an y quality where the preceding Syllable (Verb) also has rounding ($y/o/u/o$); Labialization system, 212132112. Thus, the forms $gi/yi$ (and $gy/yy$) can be regarded as the n-Piece forms of this Particle (cf. Labialization, 21213211, for the forms of this Particle other than the n-Piece: $ge/gy$, $gi/gy$, $gy/yy$).
iii. k Juncture

z: vow., (vel. + nas.), (vel. + plos. + voice)
g: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice)
g: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice)
d: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice)
n: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice)
b: vow., (lab. + nas.), (vel. + plos. + voice)
m: vow., \{(lab. \} + nas.), (vel. + plos. + voice)
r: (vow. + short dur.), (vel. + nas.), (vel. + plos. + voice);

eg.

z: thugs-'gor
   sku-'gyed
   sku-khams

  thonge:
  kongje:
  kongam

  zonge
  (drongge) tsha-po

  m: gned-'gag
  'phrul-'khor

  nengge:
  tgyngo:

  n: don-'gal
  bstan-'gur

  tengju:
  [?hermaphrodite]

b: zhabs-bskul

  s'mgy:
  Tengyur
  [?transition]
skyabs-mgon

m: lam-'gag

gzim-'gag

r: gsar-'gyur

rgyal-khams

protector
road-block
door-keeper [of the Dalai or the Regent]
news
world

The following are classified as n-Initial (App. VI):

bskul, khams 'element', khams 'territory', 'khor, 'khar, l
'khyar, mzo, mon, 'gal, 'gor, 'gag, 'go, 'gyur, 'gyed;
bskul, 'khor, 'gal, 'gor, 'gag, and 'gyur are Verbs.

iv. c Juncture

z: vow., (pal. + nas.), (pal. + aff.)
g: (vow. + short dur.), (pal. + nas.), (pal. + aff.)
η: \((\text{vow.} + \text{short dur.}, \quad (\text{vel.} + \text{nas.}),)\) (pal. + aff.)
d: (vow. + short dur.), (pal. + nas.), (pal. + aff.)
n: (vow. + short dur.), (pal. + nas.), (pal. + aff.)
b: vow., (lab. + nas.), (pal. + aff.)
r: (vow. + short dur.), (pal. + nas.), (pal. + aff.)
e.g.

z: phyag-'byor

(tshangdzə:) yong-ba

obtain

me-lcags

mendza

flint and steel

1Doubtful: for phyag-'khar 'walking-stick' both the n-Piece tshangsa: and the z-Piece tshaga: have been observed.
\( \eta: \text{rang-} \) \text{tseg} \quad \text{rangtseg} / \text{r}^3:a / \text{d}^3:a \quad \text{as before} \\
\text{dzong-} \) \text{tseg} \quad \text{göndtseg} / \text{g}^3:a / \text{d}^3:a \quad \text{please keep in mind} \\
\text{d: bod-} \) \text{liong} \quad \text{phöndtseg} \quad \text{Tibet} \\
\text{mzul-} \) \text{tseg} \quad \text{göndtseg} \quad \text{cold} \\
\text{n: spren-} \) \text{tseg} \quad \text{tryntseg} \quad \text{rainbow} \\
\text{b: rab-} \) \text{byams} \quad \text{rømdtseg} \quad \text{scholarly} \\
\text{skyabs-} \) \text{tseg} \quad \text{cømdtu} \quad \text{favour} \\
\text{r: jor-} \) \text{tseg} \quad \text{d3øndtseg} \quad \text{mattock blade} \\

The following are classified as \text{n-Initial} (App. VI):

\( \text{lcags,}^1 \text{ chag, bcug/} \text{tseg,} \text{ tseg,} \text{ jol,} \text{ jæm,} \text{ tæm,} \text{ liongs,} \text{ byor,} \text{ byams; bcug/} \text{tseg,} \text{ tseg,} \text{ and} \text{ byor} \) are Verbs. \\

v. tr Juncature \\

\( z: \) \text{vow.}, \ (\text{alv.} \ + \ \text{apic.} \ + \ \text{nas}.), \ (\text{alv.} \ + \ \text{aff.} \ + \ \text{apic.} \ + \ \text{voice}) \\
\( g: \) \ (\text{vow.} \ + \ \text{short dur.}), \ (\text{nas.} \ + \ \text{vel./alv.}), \ (\text{alv.} \ + \ \text{aff.} \ + \ \text{apic.} \ + \ \text{voice}) \\
\( \eta: \) \ (\text{vow.} \ + \ \text{short dur.}), \ (\text{nas.} \ + \ \text{vel./alv.}), \ (\text{alv.} \ + \ \text{aff.} \ + \ \text{apic.} \ + \ \text{voice}) \\
\( d: \) \ (\text{vow.} \ + \ \text{short dur.}), \ (\text{alv.} \ + \ \text{apic.} \ + \ \text{nas.}), \ (\text{alv.} \ + \ \text{aff.} \ + \ \text{apic.} \ + \ \text{voice}) \\
\( n: \) \ (\text{vow.} \ + \ \text{short dur.}), \ (\text{alv.} \ + \ \text{apic.} \ + \ \text{nas.}), \ (\text{alv.} \ + \ \text{aff.} \ + \ \text{apic.} \ + \ \text{voice}) \\
\( b: \) \text{vow.}, \ (\text{lab.} \ + \ \text{nas.}), \ (\text{alv.} \ + \ \text{aff.} \ + \ \text{apic.} \ + \ \text{voice}) \\
\( m: \) \text{vow.}, \ (\text{lab.} \ + \ \text{nas.}), \ (\text{alv.} \ + \ \text{aff.} \ + \ \text{apic.} \ + \ \text{voice}) \\

\( ^1\)\text{For lcags the evidence is conflicting: me-lcags møndtseg, 'flint and steel', jor-lcags d3øndtseg 'mattock blade', and sgo-lcags göndtseg support classification as n-Initial, but rmig-lcags møndtseg (not* møndtseg/møndtseg) 'horseshoe' as z-Initial.}
The following are classified as n-Initial (App. VI):

'khrus, 'khrul, 'gro, 'gram, 'grul, 'gros, mron,
'dri/dris, 'dre, 'dren, 'drek, 'dred, 'dra, phren,
'bras, 'bru, 'brug, 'brum, 'bring; 'khrus, 'gro,

Supported by the n-Piece examples sendre: bzhes-'bras, tshandre: bya-'bras, ja-'bras, but not samdru: sha-'bras, which would require 'bras to be classified as m-Initial (21315155).
'dri/dris, and 'dre/'dres are Verbs.

vi. Æ Juncture

z: vow., (alv. + cor. + nas.), (alv. + cor. + fric. + voice)
g: (vow. + short dur.), (vel./alv. + nas.), (alv. + cor. + fric. + voice)
ŋ: (vow. + short dur.), (vel./alv. + nas.), (alv. + cor. + fric. + voice)
d: (vow. + short dur.), (alv. + cor. + nas.), (alv. + cor. + fric. + voice)
n: (vow. + short dur.), (alv. + cor. + nas.), (alv. + cor. + fric. + voice)
b: vow., (lab. + nas.), (alv. + cor. + aff. + voice)
m: vow., (lab. + nas.), (alv. + cor. + aff. + voice)
r: (vow. + short dur.), (alv. + cor. + nas.), (alv. + cor. + fric. + voice)

e.g.

z: mgo-'dzug
nga-tsho
ŋanza

ɡ: lag-'dzin
bdag-'dzin
länzi
dänzi

ŋ: nang-mdzod
bang-mdzod
nanzo:/nanzö:
phanzö:

d: skas-'dzog
dpad-mtshams
kjänza
tjänzam

n: gan-'dzin
gsan-'dzod
kjänzö:
sänzö:

beginning
we
affray
selfishness
best-quality scarf
store-house
ladder
judgement
contract
misunderstanding
The following are classified as n-Initial (App. VI): 'dzing, 'dzeg, 'dzom, 'dzug, 'dzum, 'dzol, 'dzin, mdzub, mdzod, tsho/tsho, mtsham; 'dzing, 'dzom, 'dzeg, and 'dzug are Verbs.

21213132. z

As with the n term of the Initial system the exponents of the z term are stated within the framework provided by the Juncture system (i - xi; p, t, k, c, tr, ts, n, m, l, s, q; 2121314) and the Quality system (z, g, n, d, n, b, m, r; 2121311). First, they are illustrated by two tables, in which these exponents are symbolized in phonetic transcription. Two tables are needed because there is a slight difference in exponency according to the grammatical type of Piece in which they occur. The first table (p.436a) gives examples from the Verbal Phrase, i.e. from the Verb + Particle Word and from the Verbal-Particle + Verbal-Particle Word, and provides the means of classifying Verbal Particles, Nominalizing Particles, and some members of the Complement sub-category of Verb as z-Piece
(for the Verb Complement 'dug see 21213131, i1).

The second (p. 436 b) gives exponents drawn from the disyllabic Noun (i - xi) and the trisyllabic Noun (xi) and provides the means of classifying as z-Piece those Verb, Noun, and Adjective lexical items which can occupy the second place in a disyllabic Piece taken from these types of Noun.
<table>
<thead>
<tr>
<th>z Piece</th>
<th>g Piece</th>
<th>η Piece</th>
<th>d</th>
<th>n</th>
<th>b</th>
<th>ft</th>
<th>m</th>
<th>r</th>
<th>ft</th>
</tr>
</thead>
<tbody>
<tr>
<td>p: Vb</td>
<td>V:b</td>
<td></td>
<td>V:b</td>
<td>Vmb</td>
<td>Vb</td>
<td></td>
<td>mb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>t: Vd</td>
<td>V:d</td>
<td></td>
<td>V:d</td>
<td>Vnd</td>
<td>Vb'd</td>
<td></td>
<td>md</td>
<td></td>
<td></td>
</tr>
<tr>
<td>k: Vg/j</td>
<td>V:g/j</td>
<td>Vng/gj</td>
<td>V:g/j</td>
<td>Vnng/gjj</td>
<td></td>
<td></td>
<td>mg/j</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c: Vd3</td>
<td>V:d3</td>
<td></td>
<td>V:d3</td>
<td>Vnd3</td>
<td>Vb'd3</td>
<td></td>
<td>nd3</td>
<td></td>
<td></td>
</tr>
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<td>V:dr</td>
<td>Vndr</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n: Vn</td>
<td>V:n</td>
<td>V:N</td>
<td>V:N</td>
<td>V:N</td>
<td>V:N</td>
<td></td>
<td>nN</td>
<td>V:N</td>
<td></td>
</tr>
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<td>V:m</td>
<td>V:m</td>
<td>V:m</td>
<td>V:m</td>
<td>V:m</td>
<td></td>
<td>mm</td>
<td>V:m</td>
<td></td>
</tr>
<tr>
<td>l: Vl</td>
<td>V:l</td>
<td>VgL</td>
<td>V:L</td>
<td>V:L</td>
<td>V:L</td>
<td></td>
<td>mL</td>
<td>V:L</td>
<td></td>
</tr>
<tr>
<td>s: Vg</td>
<td>V:s</td>
<td>V:g</td>
<td>V:s</td>
<td>V:s</td>
<td>V:s</td>
<td></td>
<td>ms</td>
<td>V:s</td>
<td></td>
</tr>
<tr>
<td>q: Vb</td>
<td>V:b</td>
<td>Vgb</td>
<td>Vgb</td>
<td>Vgb</td>
<td>Vgb</td>
<td>Vb</td>
<td>mb</td>
<td>Vb</td>
<td></td>
</tr>
</tbody>
</table>
## ii. Disyllabic-Noun Piece

<table>
<thead>
<tr>
<th>z Piece</th>
<th>g Piece</th>
<th>η Piece</th>
<th>d</th>
<th>n</th>
<th>b</th>
<th>m</th>
<th>r</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>1</td>
<td>st</td>
<td>ft</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>p:</td>
<td>Vb</td>
<td>$\frac{t}{a}$</td>
<td>$\frac{g}{b}$</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t:</td>
<td>Vd/t</td>
<td>V: $\frac{a}{d}$</td>
<td>$\frac{k}{t}$</td>
<td>$\frac{g}{d}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k:</td>
<td>Vg/j</td>
<td>i:/a:/Λ:/ν:/u:g/j</td>
<td>Vgj</td>
<td>V: $\frac{a}{g}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c:</td>
<td>Vd3/tj</td>
<td>V: $\frac{a}{d}$</td>
<td>$\frac{k'}{d}$</td>
<td>$\frac{g'}{d}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>τ:</td>
<td>V:dr</td>
<td>V: $\frac{a}{d}$</td>
<td>$\frac{g'}{d}$</td>
<td>$\frac{v}{d}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n:</td>
<td>Vn/ν/j</td>
<td>V:n</td>
<td>VgN</td>
<td>V: $\frac{a}{N}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m:</td>
<td>Vm</td>
<td>V:m</td>
<td>Vjm</td>
<td>V: $\frac{a}{m}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l:</td>
<td>Vl/r/j/w</td>
<td>V: $\frac{a}{l}$</td>
<td>$\frac{g'}{l}$</td>
<td>$\frac{v}{l}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>s:</td>
<td>Vs/j</td>
<td>V: $\frac{a}{s}$</td>
<td>$\frac{k'}{s}$</td>
<td>$\frac{v}{s}$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>q:</td>
<td>V:</td>
<td>Vg</td>
<td>VgV</td>
<td>V:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. But *u:ta dbugs-thag*
2. *tj* only in careful utterances.
Notes on the two tables.

1. Where the exponent of z differs as regards the vowel quality or duration of the first Syllable of the Piece in accordance with differences in Tempo, it is necessary to indicate the variant features in the separate columns st (Slow-Tempo only), and ft (Fast-Tempo only). Elsewhere the appropriate range of vowels and their duration are summarized as V or as V:. These ranges, for which there was not room in the tables, are:

z: 

\[ \begin{array}{c}
\varepsilon \\
\alpha \\
\beta \\
\gamma \\
\delta \\
\epsilon \\
\zeta \\
\eta \\
\iota \\
\kappa \\
\lambda \\
\mu \\
\nu \\
\xi \\
\omicron \\
\rho \\
\sigma \\
\tau \\
\upsilon \\
\phi \\
\chi \\
\psi \\
\omega \\
\end{array} \]

l: 

\[ \begin{array}{c}
\alpha \\
\beta \\
\gamma \\
\delta \\
\epsilon \\
\zeta \\
\eta \\
\iota \\
\kappa \\
\lambda \\
\mu \\
\nu \\
\xi \\
\omicron \\
\rho \\
\sigma \\
\tau \\
\upsilon \\
\phi \\
\chi \\
\psi \\
\omega \\
\end{array} \]

ii. The letters N, L, and S are used to summarize the initial consonants shown in the left-hand (z-Piece) column of the table: n and \( p \) (and \( \eta \) in table ii), \( l \), \( r \), and \( j \) (and \( w \) in table ii), and \( s \) and \( j \) (and \( \eta \) in table i) respectively.

iii. For \( p \) Juncture and \( s \) Juncture the exponents appropriate to the Vb.-Complement + Particle and the Particle + Particle types of Piece are different from
those given in the table (table 1) and could not be included because of lack of space; they are:

\[
\begin{array}{cccc}
g & \eta & \delta & \mu \\
p \text{Juncture:} & a & o & i & m \\
s \text{Juncture:} & a & f & i & f \\
\end{array}
\]

The exponents of the Initial term \( z \) are as follows.

1. \( p \) Juncture

In the examples that are also \( p \)-Piece the exponents of \( z \) in the Verb + Particle Word and (Verbal) Particle + Particle Word are sufficiently different from those drawn from the (disyllabic) Noun Piece to warrant two separate statements. That for the Verb + Particle and Particle + Particle types of Word is given first.

\( z: \) (vow. + long/short dur.), (plos. + lab.)

\( g: \) Main Vb. + Part.

\[
\begin{array}{c}
(1/a/\theta/\phi + \text{short dur.}), (\text{occ.} + \text{vel.} + \text{voice}), (\text{plos.} + \text{lab.} + \text{voice}) \\
(1/a/\theta/\phi + \text{long dur.}), (\text{plos.} + \text{lab.}) \\
\text{Vb. Comp.} + \text{Part.}, \text{ Part.} + \text{Part.} \\
(\phi + \text{short dur.}), (\text{plos.} + \text{vel.} + \text{voice})
\end{array}
\]
η: Main Vb. + Part.

(ν/α/ν/ω + short dur.), (nas. + \{vel., lab.\}) (plos. + lab.)
(ν/α/ν/ω + short dur.), (nas. + vel.), vow. (ft)

Vb. Comp. + Part., Part. + Part.

(ν/ω + short dur.), (nas. + vel.), vow.

d: Main Vb. + Part.

(vow. + long dur.), (plos. + lab.)

Vb. Comp. + Part., Part. + Part.

(ν/ε/θ + short dur.), (lab. + fric.)

n: (vow. + short dur.), (nas. + lab.), (lab. + plos.)
b: (ν/ε/θ + short dur.), (lab. + plos.),
m: (lab. + nas.), (lab. + plos.)
r: (ν/ε/θ/ν/ω/ν/ω/ν + long dur.), (plos. + lab.)
(ν/ε/θ/ν/ω/ν/ω/ν + short dur.), (apico-alv. + fric.) (ft).

Verb + Particle-Piece and Particle + Particle Piece examples have already been given on pp. 320-6, and are not, therefore, repeated here.

The Verbal Particle Syllables pa/ba/ga/nga/ra (Past), pa/ga/nga (Special, and Corroborative, Interrogative), and pas/gas/ngas/ras can be exemplified in the z-Initial Piece as second Syllable, and are therefore classified as z-Piece.
The slightly different exponents of z in the
(disyllabic) Noun Piece are, by type of Quality Piece:
z: (vow. + short dur.), (plos. + lab.)
g: (v/a/a/v/o + short dur.), (vel. + {occ.}, (lab. + plos.)
   {plos.,) (ft)}
η: (v/a/a/v/o + short dur.), (nas. + {vel.},
   {lab.})(ft),)
d: (vow. + long dur.), (plos. + lab.)
n: (vow. + short dur.), (lab. + nas.), (lab. + plos.)
b: (vow. + short dur.), (lab. + plos.)
m: (vow. + short dur.), (lab. + nas.), (lab. + plos.)
r: (i/e/ε/y/z/a/v/o/u + long dur.), (lab. + plos.)
e.g.
z: grwa-pa  trba:  'monk'
   thugs-phan  thobë:  'advantage'
   phyang-sbag  tshaba  'domino'
g: lag-pa  lagbe  'hand'
dmag-dpon  magbë:/magô:  'officer'

1 Confined to Pieces in which the second Syllable is a
w-Piece Syllable (212132112), and therefore characterized
by rounding.

2 Also, in a careful style, makpô:
The following Verbs can be classified as z-Initial on the basis of the features characterizing them in the disyllabic-Noun Piece: sRunS 'pile up', phan 'profitable' phebs 'come'. Only these three are exemplified in the (disyllabic) p Piece in the thesis material. The number of z-Initial and p-Juncture Noun lexical items is too great for listing here; but the above examples show that it includes pa, sbag, don, phogs, bod, lpags, rUs, phi, and phur.

The respects in which the exponents drawn from the disyllabic-Noun differ from those drawn from the Verbal
Phrase are:

i. g: the type of exponent $v/a/v/o/\alpha g'b$ resembles the Slow-Tempo exponent of the Verbal Phrase, both in vowel quality and duration, and in its velar occlusion. Such a combination of features as one of the vowels i, a, o, and u, long duration, and velar plosion is peculiar to the Verbal-Phrase statement, while one of the vowels $v/a/o/o$ combined with short vowel duration and followed by velar plosion is peculiar to the disyllabic Noun.

ii. $\eta$: nothing corresponding to the ft exponent $v\eta v$ of the Verbal Phrase

iii. $\eta$: no examples of nasality (m) as a Fast-Tempo alternative to plosion (b)

iv. b: no examples of friction (β) as part of the exponency.

v. r: nothing corresponding to the ft exponent $v/e/y/o/a/v/\alpha r$.

vi. Juncture

z: (vow. + long/short dur.), (plos. + dent. + voice/voiceless.)

1 Only voice has been observed in Verbal-Phrase examples.
g: Main Vb. + Part., Part. + Part.
   (i/o/ʌ/ɔ/o + long dur.), (plos. + dent. + voice)
disyll. Noun
   (voicels.), (dent. + plos. + voice/voicels.)
   
   (i/a/ʌ/ɔ/ʌ + short dur.), (vel. + occ. +
   
   voice), (dent. + plos. + voice/voicels.)
   
   (vel.),

η: (i/a/ʌ/ɔ/ʌ + short dur.), (nas. +
   (plos. + dent. + voice/voicels.)
   
   (dent.), (ft),

d: (vow. + long dur.), (plos. + dent. + voice/voicels.)

n: (vow. + short dur.), (nas. + dent.), (plos. + dent. + voice)
   (voicels.), (dent. + plos. +
   voice/voicels.)

b: (i/ʌ/ʌ/ʌ + short dur.), (lab. + occ. +
   voice), (dent. + plos. +
   voice/voicels.)

1 Fu:de: bzhugs-gdan 'seat', 'stay' (not *fəgde:* ) appears
to be an exception.

2 Only voice has been observed in Verbal–Phrase examples.
m: (nas. + lab.), (plos. + dent. + voice)

r: (i/e/i/y/ø/ø/ø/ø + long dur.), (plos. + dent. + voice)

E.g.

Vb. + Part., Part. + Part.

z: di byed-thabs (tʃhidxp) yod-ba-ma-red

daa nga-ʼtsho ʼgro-do (drodo)

ɡ: bzhugs-gdan ʼjag-du (dʒa:dy:)

yi-ge klog-dus (lo:dy:)

ŋ: mthong-ta (thʊdə) mthong-byung te

sgra’i yong-bltang (jʊndə:)

bka’-smon gsung-dus (sʊndy:) sgang-ni

d: skad-cha bshad-bstang (ʃe:də:)

bsdad-dus (de:dy:)

n: dug-logs gon-bstang (khʊndə:)

thon-dus (thyndy:)

b: sgra lab-btang (lxbdə:)

m: zin-dus (sumdy:)

r: mjal-dus (dʒe:dy:)

ster-da (te:da)

'there is no help for it' (Bell)

'let's go now'

'when you were living'

'when you read'

'I did indeed see him, but — — — ' (Bell)

'articulation'

'when we talk'

'the way they speak'

'when I lived at'

'the way they wear their clothes'

'when I went out'

'pronunciation'

'when you catch'

'when I met'

'please give me' (Bell).
The particle Syllables thabs, do, dus, stang (bstang, bltang),\textsuperscript{1} dang/da (Imp.), and dus (Nomzg.) are classified as t-Piece.

(disyllab. Noun)

<table>
<thead>
<tr>
<th>z: kha-btags</th>
<th>khada</th>
<th>scarf</th>
</tr>
</thead>
<tbody>
<tr>
<td>tshethar-la</td>
<td>btang-ba</td>
<td>let live (animals)</td>
</tr>
<tr>
<td>byas-‘thus</td>
<td>tsh:dy:</td>
<td>permissible</td>
</tr>
<tr>
<td>g: mdzub-thel</td>
<td>zakti:</td>
<td>thumb-print</td>
</tr>
<tr>
<td>’jig-rten</td>
<td>dzig:</td>
<td>world</td>
</tr>
<tr>
<td>klog-deb</td>
<td>lvgdp</td>
<td>reading-book</td>
</tr>
<tr>
<td>η: shing-sdong</td>
<td>jndʒ:/jndʒ:</td>
<td>tree</td>
</tr>
<tr>
<td>thag ring-thing</td>
<td>rʊndʒ:/rʊndʒ:</td>
<td>distance</td>
</tr>
<tr>
<td>d: gsol-thab</td>
<td>sy:dp/sy:tp</td>
<td>oven</td>
</tr>
<tr>
<td>skyed-gtong</td>
<td>ce:dʒ:</td>
<td>lending for interest</td>
</tr>
<tr>
<td>n: ston-thog</td>
<td>tɛndo:</td>
<td>harvest</td>
</tr>
<tr>
<td>btsan-dug</td>
<td>tsɛndu:</td>
<td>aconite</td>
</tr>
<tr>
<td>b: yob-thag</td>
<td>jspta:</td>
<td>stirrup leather</td>
</tr>
<tr>
<td>hab-thop</td>
<td>hxbdo:</td>
<td>scramble</td>
</tr>
</tbody>
</table>

\textsuperscript{1}Though generally voiced initially one or two instances have been observed in which stang (bstang, bltang) was voiceless, e.g. byed-ltang tʃhɛtː, shod-bstang jʊːtəː, shod-dang [sic] jʊː:dʒː, gnang-bstang[-gi] naŋdʒəŋ.\textsuperscript{1}
The following are a selection from the lexical items that can be classified as z-Initial: btags (of kha-btags, but see also b-Initial t Juncture, 21213134,i), rten, thag, thar, thel, thung, thab, thog, thob, thigs, 'thus, dar, deb, dug, sdong, sder; gtong/btang, thar and thob are the only Verbs that can be classified as zt.

The respects in which zt exponents drawn from the Verbal-Phrase Piece differ from those drawn from the disyllabic-Noun Piece are:

i. g, d, b Quality Piece: voicelessness (t) is not an initial feature of the second Syllable;

ii. g, b Quality Piece: voicelessness (k' p') is not a final feature of the first Syllable;

iii. short vowel duration with appropriate vowel quality (v a ^ v o) followed by occlusion (k' g') cannot be a final feature of the first Syllable.

iii. k

z: (vow. + short dur.), \{(vel. + plos./fric. (ft))
\{(pal. + plos.)}
g: (i/ə/i/u/ɔ/ɔ long dur.), (plos. + vel./pal.)
η: (i/ə/i/ɔ/ɔ short dur.), (vel. + nas.), (plos. + vel./prev.)
d: (vow. + long dur.), (plos. + vel./pal.)
n: (vow. + short dur.), (vel. + nas.), (plos. + vel./prev.)
b: i. (i/ʃ/ɔ/ɔ short dur.), (lab. + voice + {occ.}, (fric.) (ft),
voice + {vel. + plos./fric.(ft))
voice + {pal. + plos.)
ii. (u/ɔ + long dur.), (vel. + plos. (ft))
m: (nas. + {lab.}, (plos. + vel./pal.)
vel.) (ft), (vel. + plos.)
r: (i/e/sy/ə/u/ɔ/ɔ long dur.), (plos. + vel./pal.)
(The b-Piece exponent at (ii) applies only to the
Verbal Phrase)

Examples have already been given for Vb. + Part.
and Part. + Part. Words (pp. 326-8), and are not
repeated here. The Particles gi/gvi/kvi, rgyu,
dgos/dgo/go, and ka (Final, Future-Interrogative) are
classified as k-Piece.

The following are examples from the disyllabic-
Noun Piece, by type of Quality Piece (z, g, η, etc.)
z: da-ga (thage) rang red
   spyi-khyab (tshigxp) sku-gzhogs-kyi red
it certainly is
it is from the
British Trade
Agent.

g: rig-kog ji:go:
   rigs-rgyud ri:qgy:
   envelope
   ancestry
   painting

η: thang-ka thangę
yang-skyar (jangja:) gsung-rog smang
please say it again

d: mchod-khang tsho:ga:
   skad-bsgyur ce:ju:
temple
   interpreter

n: sman-khang meną:
   mgon-skyabs gyangjep
hospital
   protection

b: rkub-kyag (kobja:) cig khyer shog
   chibs-sga tshig nga/tshib nga
bring me a chair
   saddle

m: gzim-khang srmă:
   gzim-khyi srmă
room
   dog

r: bar-bskor pha:go:
   'khar-rgyug khą:ju:
   Inner Circle [Lhasa]
   walking stick.

These examples show that the following, among
other lexical items, can be classified as k-Piece:
ka, kog, kyag, skyar, skyabs, bskor; khang, khyab, khyi;
se, se, sga, rgyud, rgyug, bsgyur; the only Verbs to be
so classified in the available material are: skyabs,
skye, skyeI/bskyal, bskor; khyab, mkhyen, khyud;
dgo/dgos, rgyag, rgyas, rgyugs, bskyur.

The only respects in which the exponents of k that have been observed for the Verb + Particle Piece differ from those observed for the disyllabic-Noun Piece are that they include: (i) b Quality Piece: the Fast-Tempo alternative \((\text{friction} + \text{labiality})\), \((\text{friction} + \text{velarity})\) \((\beta \chi)\); the Fast-Tempo alternative \((u/o + \text{long duration})\), \((\text{velarity} + \text{plosion})\); (ii) m Quality Piece: the Fast-Tempo alternative \((\text{velarity} + \text{nasality})\), \((\text{velarity} + \text{plosion})\).

\[ \text{iv. c} \]

\( z:\) \((\text{vow.} + \text{long/short dur.}), \text{(dorso-pal.} + \text{voice} + \{ \text{aff.}\})^1 \text{fric.}) (\text{ft}) \)

\( g:\) \((i/a/u/o + \text{long dur.}), \text{(dorso-pal.} + \text{aff.}) \)

\( ii.\) \((i/a/u/o + \text{short dur.}), \text{(vel.} + \text{occ.} + \text{voice/voiceless}), \text{(dorso-pal.} + \text{aff.} + \text{voice/voiceless}.) \)

\( \eta:\) \((i/a/u/o + \text{short dur.}) \{ \text{nas.}\} \{\text{vel.}, \}\{\text{pal.}\} (\text{ft}), \) \((\text{dorso-pal.} + \text{aff.}) \)

\((i/a/u/o + \text{long dur.} + \text{nas.}), \text{(dorso-pal.} + \text{aff.}) (\text{ft}) \)

\(^1\text{Voicelessness has been observed in a very few instances in a careful style.}\)
d: (vow. + long dur.), (dorso-pal. + aff.)
n: (vow. + short dur.), (nas. + dorso-pal.), (dorso-pal. + aff.)
b: (\=//\=/\ + short dur.), (lab. \{occ./fric. + voice),
\{occ. + voices.) (st),
\{voice)
(dorso-pal. + aff. +\{voices.)
m: (nas. + lab.), (dorso-pal. + aff.)
r: (i/e/ε/y/ə/a/u/ø + long dur.), (dorso-pal. + aff.);
(the g-Piece exponent at (i) applies to the Verbal
Phrase only, and the g-Piece at (ii) to the disyllabic
Noun only)

E.g.

Vb. + Part.

z: sku mmyel-po ma-byung-ngas (madzøn-) 'was it not tiring'
'phye-byas (tshedje)
zhus-byas (ly:zdø)
g: sems sdug-byung (du:dzø)
ŋ: mthong-ta mthong-byung (thøndzø)
‘da’i chibs-bsgyur gnang-byung-byung-
ngas (napdžøn-) 'did he come here'
phyag-phebs gnang-byung (nà:dzø) 'you are very welcome'
I reached Lhasa'
'he gave me a thrashing'
'did you know'
'he spoke to me'
'I thought'
'having brought'
'I received a letter'

The Verb Complement byung, and the Verbal Particles byung and byas, are classified as c-Piece.

The following examples from the disyllabic-Noun Piece:

'I shall visit'
punishment
drill
balance
footprints of traders (Bell)
weighty
tea
Political Officer in Sikkim.
minister
long ear-ring
wine
From these examples it will be seen that the lexical items bcar, can, chad, chen, ja, rjes, liid, spyi, spyod, phyi, phyogs, byil, byed, sbyong, among others, can be classified as z-Piece; the only Verbs in the available material that are classifiable as z-Piece are: bcar, chad, byed, and sbyong/sbyangs (for 'phyid see p. 486).

The z-exponents drawn from the disyllabic-Noun Piece that differ from those drawn from Verb + Particle Piece are: (i) voicelessness (tʃ) as an initial feature of the second Syllable in the z, g, and b types of Quality Piece in careful utterances; (ii) voicelessness (k' p') as a final feature of the first Syllable in the g and b types of Quality Piece in careful utterances; (iii) (velar + occlusion) (k' q') as a final feature of the first Syllable in the g Quality Piece.
v. _AMD

z: (vow. + long/short dur.), (alv. + aff. + apic. + voice/voiceless).

g:  i. (vow. + long dur.), (alv. + aff. + voice)(ft)
   ii. (vow. + short dur.), (vel. + occ. + voice), (alv. + aff. + apic. + voice/voiceless)
   iii. (vow. + short dur.), (vel. + occ. + voiceless) (alv. + aff. + apic. + voiceless)(st)

η: (/α/ η/ϕ/ + short dur.), (nas. +) (alv. + aff. + apic. + voice)

(d. (vow. + long dur.), (alv. + aff. + apic. + voiceless)

η: (vow. + short dur.), (alv. + nas. + apic.), (alv. + aff. + apic. + voice)

b: (/ζ/ θ/ν + short dur.), (lab. + occ. +) (alv. + aff. + apic. + voiceless), (alv. + aff. + apic. + voice)

m: (lab. + nas.), (alv. + aff. + apic. + voice)

r: (/ε/ η/ε/ η/α/η/α/ο/ + long dur.), (alv. + aff. + apic. + voice)

The following are examples in which the second Syllable is /pro/ (/pro) (this Verbal Particle is confined to the d and the n types of Quality Piece and to the
Verb Complement + Particle or the Particle + Particle, grammatical type of Piece, 21213112):

d: phog-gi-mad-'gro (-m̃:dro)  
'he is afraid he might catch'

n: khong min-'gro (m̃endro)  
'not him, is it'

bsdad-kyi-yin-'gro (-j̃indro)  
'he will probably stay' (Bell)

The Verbal Particle gro/’gro is the only Verbal Particle to be classified as tr-Piece.

The following are tr-Piece examples from the disyllabic-Noun Piece:

z: she-khral  
s̃bre:/s̃dre:  
customs duty

dbu-skra  
̃dre  
hair

zas-grib  
se:drup  
unclean food

g: rdog-khres  
̃dre:/d̃gdr̃/d̃k̃tre/i  
 bundle

tshogs-khro  
tsho:dro  
large bronze cauldron

tsog-grib  
tsogdr̃i  
defilement from dirt

bzhugs-khri  
s̃gtri  
throne

shog-granges  
s̃k̃traː  
page number

ang-granges  
̃andr̃aː  
number

chang-khral  
tʃhandreː/ʃhandreː  
beer tax
<table>
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<tr>
<th>Particles</th>
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<td><code>d</code></td>
<td><code>chos-khrims</code></td>
<td>religious law</td>
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<tr>
<td></td>
<td><code>gsol-krum</code></td>
<td>meat</td>
</tr>
<tr>
<td><code>n</code></td>
<td><code>bzhon-drel</code></td>
<td>riding mule</td>
</tr>
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<td></td>
<td><code>bdun-phrag</code></td>
<td>week</td>
</tr>
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<td><code>b</code></td>
<td><code>ltab-sri</code></td>
<td>clasp-knife</td>
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<td></td>
<td><code>chibs-srab</code></td>
<td>bridle</td>
</tr>
<tr>
<td><code>m</code></td>
<td><code>gnam-gru</code></td>
<td>aeroplane</td>
</tr>
<tr>
<td></td>
<td><code>rten-'brel</code></td>
<td>luck</td>
</tr>
<tr>
<td><code>r</code></td>
<td><code>gsar-khri</code></td>
<td>golden throne</td>
</tr>
<tr>
<td></td>
<td><code>bsil-grib</code></td>
<td>shade</td>
</tr>
</tbody>
</table>

From this list of examples, the following can be classified as z-Piece:

- `dkrum, skra, khral, khra, khro, khri, khrims, grib, grangs, gri, gru, drel, phrag, 'brel, srab.`

Verbs similarly classified as z-Piece in the available material comprise:

- `skrag, grub, srig, drag, dran, sreg.`

In the Verbal Phrase examples of the t Piece are limited to the `d` and `n` types of Quality Piece.

1 Also `tendre/ɪ`.

2 Because of `me-sreg` (medra) _gtong-ba_ to burn, but cf. also `sbvin-sreg dʒt:se_ burnt offering. Cf. also `bskregs-nas tronę` having burnt.
(pp. 453-4); in the \text{a type} of Quality Piece the exponency of \( \hat{t} \) in the Verbal Phrase differs from that of the disyllabic Noun in one feature only: absence of voicelessness as a possibility.

vi. \( \text{t}_5 \)

\( z: (\text{vow. + long/short dur.}), (\text{alv. + cor. + aff.}) \)

\( g: \)

1. \textbf{Verbal Phrase}

\( (\text{vow. + long dur.}), (\text{alv. + cor. + aff.}) \)

2. \textbf{disyllabic Noun}

\( (\text{vow. + short dur.}), (\text{vel. + occ. + voice}), (\text{alv. + fric. + cor.}) \)

\( n: \)

1. \( (i\alpha/\alpha/\alpha/\alpha + \text{short dur.}), (\text{nas. + \{vel.\}}, (\text{alv. + cor. + fric.}) \)

\( i. (i\alpha/\alpha/\alpha/\alpha + \text{long dur. + nas.}), (\text{alv. + cor. + fric.}) (\text{ft}) \)

\( d: (\text{vow. + long dur.}), (\text{alv. + cor. + aff.}) \)

\( n: (\text{vow. + short dur.}), (\text{alv. + nas.}), (\text{alv. + cor. + fric.}) \)

\( b: (i\epsilon/\alpha/\alpha + \text{short dur.}), (\text{lab. + occ. + voice}), (\text{alv. + cor. + fric. + voice}) \)

\( m: (\text{lab. + nas.}), (\text{alv. + cor. + fric.}) \)

\( r: (i\epsilon/\epsilon/\epsilon/\epsilon/\epsilon/\epsilon/\epsilon/\epsilon/\epsilon/\epsilon + \text{long dur.}), (\text{alv. + cor. + aff.}) \)

\( ^1 \text{Restricted to the Verbal Phrase type of Piece.} \)
Both the \( \tilde{t} \) and the \( t \) Piece have alveolarity as a localization feature, but the area of the alveolar ridge is not the same. It is not surprising that it should not be; for the feature coronality implies a larger area of approximation and of actual contact than does apicality. The area of contact for coronality extends considerably further forward than that of apicality.

Examples of the \( t \) Juncture Piece in which the second Syllable of the Piece is the Verbal Particle \( \text{tsang} \) have been given above (pp. 329-330).

The Verbal Particle \( \text{tsang} \) and the Nominal Particle \( \text{rtsis} \) are classified as \( t \)-Piece.

The following examples of the \( t \) Piece are from disyllabic Nouns:

\[
\begin{align*}
\text{z}: & \quad \text{ljang-rtsis} & d\text{zi:} & \quad \text{accounts} \\
& \quad \text{ljang-tshwa} & d\text{zadz} & \quad \text{salt} \\
\text{g}: & \quad \text{mig-btsum} & m\text{g} & \quad \text{wink} \\
& \quad \text{lug-rd} & l\text{gzi} & \quad \text{shepherd} \\
\eta: & \quad \text{rgyal-rtse} & j\text{enzi} & \quad \text{Gyantse} \\
& \quad \text{chang-rtsi} & t\text{shangzi/tshanzi} & \quad \text{yeast} \\
\text{d}: & \quad \text{sku-tshad} & k\text{odze:} & \quad \text{heat} \\
& \quad \text{gzal-rdzun} & j\text{e:dzý:} & \quad \text{lie} \\
\text{n}: & \quad \text{skyin-tshab} & j\text{tnzép} & \quad \text{repayment of a loan} \\
& \quad \text{gnyen-tshan} & j\text{enzé:} & \quad \text{relative}
\end{align*}
\]
b: khab-rtse  khybzt  needle point
m: 'dam-rdzab  dámzwp  swamp
   'jam-rtsub  džamzu;  degree of softness

The lexical items rtsis, rtse, rtsi, rtsub, tshwa,
tshad, tshab, tshen, rdzi, rdzun, and rdzab in these
eamples are among those classifiable as tś-Piece.
In the available material the Verbs that are classifiable
in this way as tś-Piece are: btsum, rtsis, rtsed, rtsom,
brtse, tshong.

The tś exponents in the Verbal Phrase differ from
those of the disyllabic-Noun Piece in the following
respects: (i) g Piece, V: dz v. Vgz; (ii) η Piece,
Fast-Tempo alternative V: z, and absence of the Fast-
Tempo alternative Vnz.

vii. η
z: (vow. + long/short dur.), (nas. + non-lab.) (n/ŋ/ŋ)
g: (i/a/x/u/o + long dur.), (nas. + non-lab.)
  (i/a/x/u/o + short dur.), (vel. + voice +
   {occ.},) (nas. + non-lab.) (st)
η: (i/a/x/u/o + long dur. + nas.), (nas. + non-lab.)¹
d: (vow. + long dur.), (nas. + non-lab.)

¹One or two examples of the sequence (i/a/x/u/o +
short dur.), (vel. + nas.), nasality, e.g. mdang-nub
dumpy, nang-nub nangnym, smyung-smas nangme:, have been
observed, but are taken to be Reading-Style pronunciations.
n: (vow. + long dur. + nas.), (nas. + non-lab.)

b: (i/e/ε/γ/ɔ/ʌ/ʊ/ɔ/ɤ + short dur.), (lab. + voice + \{occ.\} (st),} (nas. + non-lab.)

m: (nas. + lab.), (nas. + non-lab.)

r: (i/e/ε/γ/ɔ/ʌ/ʊ/ɔ/ɤ + long dur.), (nas. + non-lab.)

e.g.

Vb. + Particle, and Part. + Part.

z: zer-na-ni (-nən)
   'byor-mad-pa-no (-bəno)

g: chibs-raga bagrigs-nas (drugne)
   glog 'khyugs-nas (kgomne)

ŋ: ga-bar chibs-bsgyur smang-nyan (nə:ɲɛ:) vin-pa-no
   nor-song-na (-sə:ne)

d: bsad-myong-ngas (se:ɲəŋ)
   ga-bar bzhugs-gdan 'jag-]kyi-yod-na (-jə:ne)

n: rkang-skor vin-na'i (jī:na:)
   par skyon-ni (cə:nu)

b: dbvin-[skad] slab-nyan (ləbɲɛ:)
   khebs-na (kʰəmne)

m: shums-nas (ʃəmne)
   rku-na - - - zin-mkhan (siṃɲɛ:) de-tsho

r: dar-na'i (tha:ne:)

as for if you say
have you not received
in single file (Bell)
when lightning flashed
where are you going
if I made a mistake
have you ever killed
where does he stay, I
wonder
is it foot-operated,
or --
having printed
people teaching English
if it should spread
having cried
the men who caught
the thief (Bell)
even if it should
spread
r: [bsgrigs tshar]-ni (tsho:ni)  
'when you have finished setting it up'

The Verbal Particles na (Conditional, Emphatic, Special-Interrogative, Alternative-Interrogative), no, myong/nyung, and nas/ni, the Nominalizing Particle nyan/wkhan, and the Phrase Particle ni, are classified as n-Piece.

disyllabic Noun

z: sku-ngo (kone:) chibs-bsgyur gnang-byung
    thugs-nyar (thona:) gnang-rog gnang

you are very welcome, sir.

please take care of

cattle disease
pen and ink

tomorrow
quantity

fifty five
sweat

poetry

solitary place
reinforcements

[? dark shadow]
good news
The following lexical items among others can therefore be classified as n-Piece: ngo, lnga, ngag, rnza; nyar, nvin, nyung, snyes, snyen, rnying, smyug; nub, nad, gnas, snon; Verb lexical items similarly classifiable as n-Piece comprise: bsngal, nyes, and nub.

The respects in which the exponents drawn from the disyllabic Noun differ from those of the Verb + Particle and Particle + Particle Piece are: (i) in the z, η, d, and n types of Quality Piece, velar nasality as an initial feature of the second Syllable (this feature is not, however, common; and it is not, therefore, surprising that it should be absent from the Verbal-Phrase types of Piece); (ii) (g Piece) absence of (velarity + occlusion) (g') as a final feature of the first Syllable in Slow-Tempo utterances; (iii) absence of (labiality + occlusion) (b') as a final feature of the first Syllable.

viii. m

z: (vow. + long/short dur.), (nas. + lab.)
g: (vow. + long dur.), (nas. + lab.)
   (vow. + short dur.), (nas. + vel.), (nas. + lab.) (st)
η: (vow. + long dur. + nas.), (nas. + lab.)
d: (vow. + long dur.), (nas. + lab.)
n: (vow. + long dur. + nas.), (nas. + lab.)
b: (vow. + short dur.), (nas. + lab.), (nas. + lab.)
   (vow. + short dur.), (occ. + lab.), (nas. + lab.) (st)
   (vow. + short dur.), (nas. + lab.), (vow.) (ft)
m: (vow. + short dur.), (nas. + lab.), (nas. + lab.)
   (vow. + short dur.), (nas. + lab.), (vow.) (ft)
r: (vow. + long dur.), (nas. + lab.)

e.g.

Vb. + Part. and Part. + Part.

z: 'brug-pa vin-na-min (-nem'-) 'whether or not she is Bhutanese'
yag-po bzos-mi-'dug (sə:mt-) 'it has not been well made'
g: kā-sbug-la bzhugs-mus (ju:my:) red 'he is living at Kalimpong'
η: mthong-ma-nyung (th5:me-) 'I have never seen'
   phyag-las gnang-mus (n5:my:) 'he is working'
d: thag mchod-ma-song (tʃhə:ma-) 'it was not decided'
n: phyin-mi-yong-ngas (tʃhɪ:me-) 'would they not go'
b: lab-ma-song (ləbma-/ləmma-) 'he did not speak'
m: zin-ma-song (summa-) 'he did not catch it'
r: phyag-ris 'byor-med-
   pa-no (dʒə:me:-) 'have you not received a letter'
   mjial-ma-byung (dʒə:me-) 'I did not meet him'
On the basis of the above examples the Verbal Particles ma/ni, min, and med/mad, and the Nominalizing Particle mus, are classified as m-Piece.

**Disyllabic Noun**

<table>
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<tr>
<th>Noun</th>
<th>Meaning</th>
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<td>z: <em>rya-mi</em></td>
<td>gjam</td>
</tr>
<tr>
<td>a-<em>ma</em></td>
<td>(ma) lag</td>
</tr>
<tr>
<td>g: <em>hvogs-mi</em></td>
<td>tsno:mi</td>
</tr>
<tr>
<td><em>dmag-mi</em></td>
<td>mi:mi/mi:mi</td>
</tr>
<tr>
<td><em>gza’ mig-dmar</em></td>
<td>mi:ma</td>
</tr>
<tr>
<td>n: <em>nyung-ma</em></td>
<td>na:me</td>
</tr>
<tr>
<td>d: <em>nyes-dmigs</em></td>
<td>ni:mi:</td>
</tr>
<tr>
<td><em>rgod-ma</em></td>
<td>ge:me</td>
</tr>
<tr>
<td>n: <em>sngon-mar</em></td>
<td>ne:ma:</td>
</tr>
<tr>
<td><em>gsol-mar</em></td>
<td>se:ma:</td>
</tr>
<tr>
<td>b: <em>chibs-smed</em></td>
<td>ts: (m)me:</td>
</tr>
<tr>
<td><em>grib-ma</em></td>
<td>tr: (m)me</td>
</tr>
<tr>
<td>m: <em>'bam-sman</em></td>
<td>bamE:</td>
</tr>
<tr>
<td>r: <em>rgval-mo</em></td>
<td>gE:mE:</td>
</tr>
<tr>
<td><em>sgor-mo</em></td>
<td>ge:mE:</td>
</tr>
</tbody>
</table>

The following lexical items can therefore be classified as m-Piece: ma, mi, mar, mo, dmar, dmigs, sman.

The exponents statable for the disyllabic-Noun Piece differ from those of the Verbal Phrase in the following respects: (i) g Quality Piece, Vrm as a
Slow-Tempo alternative; (ii) b Piece, Vm as a
Fast-Tempo alternative to Vmm, but absence of Vbm;
(iii) m Piece, m, as opposed to the mm of the Verbal-
Phrase exponent.

ix. 1

z: (vow. + long/short dur.), liq. (l/r/j/w)
g: (i/u/u/u + long dur.), liq.
   (i/a/o/o + short dur.), (vel. + {occ.} + voice), liq.(st)
η: (i/u/u/o + long dur. + nas.), liq.
d: (vow. + long dur.), liq.
n: (vow. + long dur. + nas.), liq.
b: (i/x/o/o + short dur.), (lab. + voice + {occ.},)
   {fric.} + liq. +
   voice
m: (nas. + lab.), liq.
r: (i/e/e/y/o/o/u/o + long dur.), liq.;

E.g.

Vbo. + Part., Part. + Part.

z: bcar-gvi-yin (-gej')
   ma-red (mare)
g: yi-ce klog-yag (lo:ja:)
   'grigs-yong (drigj5)
"would you come"
'drinking water'
'time to see these men' (Bell)
'time to stay'
'please print'
'they go'
'one for learning Tibetan'
'have you fastened the saddle well'
'(G. and R.)
'they would gather'
'they would catch'
'they would offer'
'they would alter'.

The Verbs Complement red, vin, vod, and vong, the Verbal Particles vin, vong, vod, and red, and the Nominalizing Particles long, vag, and rog, are classified as 1-Piece.

disyllabic Noun

children
these days
These examples provide the following selection of lexical items that can be classified as Z-Piece:

- blug/blugs, blo, rlabs, lung, lo; ring, ra, ras, rabs; vik, von, yum, e,yab, dbang, wa; the Verbs

1 Also tjhimlo:
that have been classified as z-Piece are: klog, slob/blabs, blug/blugs, lus, log.

The z exponents drawn from the disyllabic-Noun type of Piece differ from those drawn from the Verbal-Phrase types of Piece in the following respects:

(i) in the z, g, η, d, and r types of Quality Piece, initial labiovelarility (w) in the second Syllable

(ii) in the g type of Quality Piece, final friction (ɣ) in the first Syllable, and initial laterality (l) and friction (r) in the second.

X. S

z: (vow. + long/short dur.), sib. (s/j/q)

g: Verbal-Phrase Pieces

(i/奥林/奥林 + long dur.), sib.

(i/奥林/奥林 + short dur.), (vel. + {occ. + voicels},)

(fric. + voice),

(fric. + voicels.)(s/j) (st)

disyllabic-Noun Piece

(奥林奥林 + long dur.), fric. (ft)

(i/奥林奥林/奥林 + short dur.), (vel. + occ./fric. {voicels.},)

(voice),

(fric. + voicels.)

η: (奥林奥林奥林 + long dur. + nas.), sib.
d:  i. (vow. + long dur.), sib.
   ii. (o + short dur.), sib.

n:  i. (vow. + long dur. + nas.), sib.
   ii. (i + short dur. + nas.), sib.

\[
\begin{align*}
\text{b: } & (u/\emptyset/\emptyset + \text{short dur.}), \ (\text{lab. } + \text{occ. } + \{ \text{voicels.} \}) \\
& \{ (\text{sib. } + \text{voice}(\text{ft}), \ \text{voicels.})
\end{align*}
\]

m: (lab. + nas.), sib.

r: (i/e/ε/y/ə/a/u/ο + long dur.), sib.;

(the exponents given at d(2) and n(2) apply to the
Vb. Comp. + Part., or Part. + Part., types of Piece,
213131122)

e.g.

Vb. + Part., Part. + Part.

z: yag-po shes-kyi-a-yod (-gi?a-)

byas-bzhin (tʃeːʃt)

g: rgyugs-a (juː?a:

bsgrigs-sa (drikse) de

blugs-shig (lʌʒt)

η: nga phyin-song-se (-sãś), gsung-a

(sã:?a:)

'I doubt whether
I do know it well'

'therefore'

'off you go, then'

'this place where
it joins'

'pour it, then'

'do, please, say
I went'
d: 1. khong-la sprad-shag (tre:fa) 'it has been given to him'
    bris-song (tri:s5) 'he wrote'
2. sku-gzugs bde-po yod-shag (jo:fa) 'I see you are well'

n: 1. skyon-a-yod (cE:a-) 'we have not, I suppose, printed'

      3. so-so'i lung-pa'i phyu-pa
          gyon[-se]y(khE:s) "wear the dress
          of one's own country"

      2. sku-gzugs bde-po yin-shag (ji:fa) 'I see you are well'

b: lab-a (1sp'a:)
    chibs-song (tjhibs5) 'tell him, will you'

m: zin-song (sums5)
    skom-sa'i (komsE:) 'he rode'
    'he caught'
    'what a shortage there is too'

r: bskol-song (kE:s5) 'he boiled it'
    shi tshar-song (tsha:s5) 'he was already dead'

The Verbal Particles shig, se/ze, a (Dubitative, Imperative), shag/zhang, song, and bzhin, and the Nominalizing Particle sa, are classed as s-Piece.

disyllabic Noun

z: glo-sub lasu:
    tog-tsam sku-bzhugs (ka:ju:) gmang coughing
    do stay a little
The Noun lexical items that occur as a second Syllable of the above disyllabic s-Pieces, and others that resemble them in this respect, are classifiable as s-Piece: zhib, gzhas, zam, ze, zangs, bza', sha, shad, shag, seng, gseb, srid. The above Verb lexical items, zhu/zhus, bzhugs, gzhol, gziga, and sub are also s-Piece, and so too are: bzhenga, bshags, bshad, srung.
The respects in which the Verbal-Phrase exponents of the s Piece differ from those of the disyllabic Noun are: (i) (all types of Quality Piece) glottal plosion as an initial feature of the second Syllable; (ii) (z Quality Piece) the 1 Quantity Piece \( V: s / j / \); (iii) (g Quality Piece) absence, from the available material, of Syllable-final (voice + occlusion) \( g' \) and voicelessness + friction \( x \).

\text{xi. q}

The statement of exponency for the Verbal Phrase, Verb + Nominalizing Particle \( ba/ra/ra/nga/ra \), is sufficiently different from that for the disyllabic Noun Piece for the two to be separately stated:

\( (Vb. + \text{Nomzg.}) \) Part

\begin{align*}
\text{z:} & \ (s), \ (e/e/o/o + \text{long dur.})^1 \\
& \ (i/e/a/o + \text{short dur.}), \ (1\text{ab. + plos.}) \\
& \ (1), \ (e/e/y/e + \text{long dur.}), \ (1\text{ab. + plos.}) \\
\text{g:} & \ \text{as for (i), p}
\end{align*}

\(^1\text{For s and l see Quantity, 2121312.}\)
η: \((\eta/\alpha/\omega/\rho + \text{short dur.})\), \((\text{nas.} + \text{vel})\), \((\text{vel.} + \text{plos.})\);
\((\eta/\alpha/\omega/\rho + \text{short dur.})\)\{\((\text{nas.} + \text{vel}), \text{vow.}\)\} \((\text{ft})\);
\((\eta + \text{long dur.} + \text{nas.})\), \((\text{vow.} + \text{nas.})\) \((\text{ft})\)

d: as for p

n: \((\text{vow.} + \text{short dur.})\), \((\text{nas.} + \text{lab.})\), \((\text{lab.} + \{\text{plos.}\})\)
\((\text{nas.}\text{.}\text{ft})\)

b: \((\eta/\alpha/\omega/\rho + \text{short dur.})\), \((\text{lab.} + \{\text{plos.}\})\)
\((\text{fric.})\) \((\text{ft})\)

m: as for p

r: as for p, but with \((\text{apico-alv.} + \text{fric.} + \text{syll.})\)

as an additional Fast-Tempo alternative.

For examples of these exponents see pp. 315-20.

The Nominalizing Particle \(\text{ba/pa/qa/nga/ra}\) is classified as \(q\)-Piece.

**disyllabic Noun**

\(z:\ (\varepsilon/\varepsilon/\alpha/\omega/\rho + \text{long dur.})\)
\((\eta/\alpha/\omega/\rho + \text{short dur.}), \text{vow.} (\omega \varepsilon)\)

\(g:\ (\vartheta + \text{short dur.}), \text{vel.} + \text{plos.} + \text{voice}\)

\(\eta:\ (\vartheta + \text{short dur.}), \text{vel.} + \text{nas.}), \text{vow.}\)

d: none

n: \((\vartheta + \text{long dur.} + \text{nas.}), \text{vow.}\)

b: none

m: none
r: (ə/ə/ɔ + short dur.), (alv. + apic. + fric.), vow.
e.g.
z: ra-bzi-ba (-pse:/-∫e:)
gzhis-rtse-ba, (-dze:).
rgyal-rtse-ba (-zε:)
rme-ba ma:
lha-sa-ba (-sa:)
ka-ba ka:
dngo-bzo-ba (-pso:)
rmö'o (mo:) lags
go-ba go:
shing-bzo-ba (-so:)
chibs-bsu-ba (-so:)
du-ba tho:
le'u lu
ga'u khø
zha-bo jaø
zla-'od daø:
g: yi-ge figg
lu-gu l goto

ga-re'i don-la cag-ga (bca'-ga)
(tsage) vag-po ma byas-pa
'drankard'
'Shigatse man'
'Gyantse man'
'mole'
'Lhasa man'
'pillar'
'shoe-maker'
'grandmother'
'large kind of vulture'
'carpenter'
'luggage'
'smoke'
'chapter'
'charm-box'
'cripple'
'moonlight'
'letter'
'lamb'
'why did you not take good care' (G. and R.)
η: 'bras-gongs-pa (ngon)
   'Sikkimese'
nya-rung-ba (bdon)
   'fisherman'
sgo-nga (sgong-nga) (gon)
   'egg'

n: steng-og te:ø:
   'upstairs and downstairs'

r: gya-ga-ra (-gar)
   'Indian'
mas-bskor-pa (-gor)
   'pilgrim'
phyur-ra tshor
   'cheese'

Such lexical items as ba/nga/ra, bo/-'o, -'u/gu,
'od, 'og, and ge can be classified as q-Piece from
these examples. There are no Verbs that can be
classified as q-Piece on the same grounds.

The respects in which q-Piece exponents drawn
drawn from the Verbal Phrase differ from those of the
disyllabic or the trisyllabic Noun are: (i) z Piece,
Vb for certain Verbs (pp. 339-40); 1 Quantity Piece;
noV sequence; (ii) g Piece, the sequences V:b, V:g,
and Vg'b, but no sequence Vg; (iii) η Piece, the
sequences Vj b, Vỳ, and V:V; (iv) d Piece; (v) n Piece,
Vmb, but no sequence V:V; (vi), b Piece and m Piece;
(vii) r Piece, e/y/zr, Vp, and V:b/β.
Since the exponency of the m Initial term also varies in accordance with type of Quality Piece and Juncture Piece, it too is presented within a framework provided by the Quality system (z, g, η, d, n, b, m, r; 212131112) and the Juncture system (2121314). These exponents are given first, in phonetic transcription, in the form of a table, for easy comparison with the corresponding tables for the n (21213131) and the z (21213132) terms:
<table>
<thead>
<tr>
<th>Juncture</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>z Piece</td>
<td>g Piece</td>
</tr>
<tr>
<td>t</td>
<td>$v_{md}^n$</td>
</tr>
<tr>
<td>k</td>
<td>$v_{mg}$</td>
</tr>
<tr>
<td>c</td>
<td>$v_{md}^z$</td>
</tr>
<tr>
<td>t$\bar{s}$</td>
<td>$v_{m}^{n}$</td>
</tr>
</tbody>
</table>

Notes on the table

1. The ranges of vowels symbolized by $V$ are:
   z Piece, $\varepsilon$ a â o; g Piece, $a$ v; d Piece, $\varepsilon$; n Piece, $\phi$; b Piece, $\upsilon$. These are the vowels found in the available material, which is not exhaustive. There are no examples in it of the $\eta$, the $m$, or the $r$ Piece. For the sole example from $\tilde{t}$ Juncture ($\text{sam\text{r}e: sha'-bras 'meat and rice'}$) see 21213131, v.

2. Where alternative features are symbolized for the same term, e.g. (tg) $v_{\{n\}^{d}}$, the lower one is appropriate to Fast-Tempo utterances only.

1 Also $v_{md}^z$; see the g-Piece example at (iii) below.
The exponents of \( m \) in the available material are, by type of Juncture Piece (i-iv; t, k, c, fs) and by type of Quality Piece (z, g, d, n, b):

i. t Juncture

\[ z: \varepsilon/a/\alpha/\omega, \text{ (lab. + nas.)}, \text{ (dent. + plos. + voice)} \]

\[ g: \{a/o + \text{ short dur.}, \text{ (nas. + vel), (dent. + plos. + voice)} \} \]

\[ b: \gamma, \text{ (lab. + nas.)}, \text{ (dent. + plos. + voice)}; \]

e.g.

\[ z: \text{kha-mthun kha}m\text{d}y: \quad \text{'harmony'} \]

\[ \text{skya-md}\text{a'} (?\text{mtha'}) \text{ camde} \quad \text{'dawn'} \]

\[ g: \text{phag-md}\text{o phan/nd}\text{o} \quad \text{[Phagdo]} \]

\[ b: \text{stabs-mthun ts}\text{mdy} : \quad \text{[friendly manner?]} \]

From the above examples mthun, mda' (or mtha'), and mdo can be classified as m-Piece lexical items (App. VI); they include mthun, which can be a Verb, to which can be added 'dul.

ii. k Juncture

\[ z: \circ, \text{ (lab. + nas.)}, \text{ (plosion + voice + prev. (gj))} \]

\[ \text{rdo-mgyogs domgjo:/domyo:} \quad \text{stone weight} \]

From this, the only example in the material, mgyogs can be classified as m-Piece.
iii. c Juncture

z: e/a/ə/ɔ/ɔ, (lab. + nas.), (dorso-pal. + aff. + voice)
g: v, (vel. + nas.), (dorso-pal. + aff. + voice)
n: (ø + short dur.), (pal. + nas.), (dorso-pal. + aff. + voice);

e.g.

z: ja-mchod tjomd ço:
    sku-mched kómde:

g: tshogs-mchod tshomd ço:

n: dkon-mchog (kmdço:) gsum

From these examples mchod, mched, and mchog can be classified as m-Piece lexical items (App. VI), of which mchod is the only Verb.

iv. ts Juncture

z: a/ɔ/ɔ, (nas. + {lab.}, (alv. + fric. + cor. + voice)
    alv.) (ft),

d: (ɛ + short dur.), (nas. + alv.), (alv. + fric. + cor. + voice);

e.g.

z: dbu-mdzad ?omze:
    ngo-mtshar (ŋomza:/ŋonzax) chen-po wonderful

1 Also tshomd ço:
d: khyad-mtshar chenza: strangeness

From these examples mdzad and mtshar can be classified as m-Piece lexical items; there are no Verb examples (there is a Verb mdzad 'do' in Classical but not in Lhasa Tibetan).

21213134. b

The exponency of the b Initial term also varies in accordance with type of Quality Piece and Juncture Piece; it is here presented in terms of the Quality system (z, g, ṅ, d, n, b, m, r; 212131112) and the Juncture system (2121314). As with other terms of this system the exponents are first illustrated, in phonetic transcription, in the form of a table, for easy comparison with the tables for the n, z, and m terms (21213131-3).
<table>
<thead>
<tr>
<th>Junct.</th>
<th>z Piece</th>
<th>g Piece</th>
<th>η Piece</th>
<th>d Piece</th>
<th>n Piece</th>
<th>b Piece</th>
<th>m Piece</th>
<th>r Piece</th>
</tr>
</thead>
<tbody>
<tr>
<td>t:</td>
<td>( vP )</td>
<td>( vP^{th} )</td>
<td>( v/\omega g^{d} )</td>
<td>( v/\omega g^{d} )</td>
<td>( v^{d} )</td>
<td>( v^{nd} )</td>
<td>( vb^{d} )</td>
<td>( vmd^{d} )</td>
</tr>
<tr>
<td>k:</td>
<td>( vP^{k}j )</td>
<td>( b^{g}j )</td>
<td>( u:gj )</td>
<td>( v: gj )</td>
<td>( v: gj )</td>
<td>( v: gj )</td>
<td>( v: gj )</td>
<td>( v: gj )</td>
</tr>
<tr>
<td>c:</td>
<td>( vP^{ts} )</td>
<td>( b^{d}z )</td>
<td>( a/\omega k^{ts} )</td>
<td>( v^{d3} )</td>
<td>( v^{d3} )</td>
<td>( v^{d3} )</td>
<td>( v^{d3} )</td>
<td>( v^{d3} )</td>
</tr>
<tr>
<td>tr:</td>
<td>( vP^{tr} )</td>
<td>( b^{dr} )</td>
<td>( a/\omega k^{tr} )</td>
<td>( vndr )</td>
<td>( v: )</td>
<td>( v: )</td>
<td>( v: b^{t} )</td>
<td>( v: r )</td>
</tr>
<tr>
<td>ts:</td>
<td>( vP^{s} )</td>
<td>( b^{z} )</td>
<td>( b^{r} )</td>
<td>( g^{dr} )</td>
<td>( vmdr )</td>
<td>( vmdr )</td>
<td>( vmdr )</td>
<td>( vmdr )</td>
</tr>
<tr>
<td>n:</td>
<td>( v\omega n )</td>
<td>( v\omega n )</td>
<td>( v\omega n )</td>
<td>( v\omega n )</td>
<td>( v\omega n )</td>
<td>( v\omega n )</td>
<td>( v\omega n )</td>
<td>( v\omega n )</td>
</tr>
<tr>
<td>l:</td>
<td>( v\omega l )</td>
<td>( a/\omega l )</td>
<td>( a: l )</td>
<td>( v: l )</td>
<td>( v: l )</td>
<td>( v: l )</td>
<td>( v: l )</td>
<td>( v: l )</td>
</tr>
<tr>
<td>s:</td>
<td>( vP^{s} / )</td>
<td>( b^{f} )</td>
<td>( a^{g}f )</td>
<td>( \xi:s )</td>
<td>( v:s )</td>
<td>( \xi:s /f )</td>
<td>( vP^{s} )</td>
<td>( v:s )</td>
</tr>
</tbody>
</table>

1 But in bzhugs-gdan 'seat' \( u:d \) (\( ju:dr: \)) is more common than \( ag^{d} \) (\( jo:dr: \)).
Notes on the table

i. Where the exponent of b differs as regards the vowel quality or duration of the first Syllable of the Piece in accordance with differences in Tempo, it is necessary to indicate the Slow-Tempo (st) features in a separate column (z Piece and g Piece only). Elsewhere the appropriate ranges of vowels and their duration are summarized as V, V:, or V:. These ranges are:

\[
\begin{align*}
z &: \text{a a o o} \\
\eta &: \text{a a o o} \\
n &: \text{e o y y} \\
m &: \text{a a o o}
\end{align*}
\]

The available material does not, however, necessarily include an example of each vowel in each range; and in the statement of exponency below only those vowels are cited for which there are examples.

ii. Where alternative exponents are given in brackets, the lower of the two is appropriate only to Fast-Tempo utterances.

The exponents of the b Initial term are:
i. t Juncture

z: \( \varepsilon /a/ \gamma / \omega / \o / \),
    (lab. + occ. + \{ voice \}, (dent. + plosn. + voice) + \{ asp(st) \})
    (non-asp)

g: (\( \varepsilon /u/ \varepsilon / \omega / \), (vel. + occ. + voice), (dent. + plosn. + voice)

\eta: (\( a/v / \omega / \), (nas. + voice + \{ vel \}, (dent.) (ft)), (dent. + plosn. + voice)

d: no examples in the material

n: (\( y / \), (dent. + nas.), (dent. + plosn. + voice)

b: (\( z / \), (lab. + occ. + voice), (dent. + plosn. + voice)

m: a, (lab. + nas.), (dent. + plosn. + voice)

r: no examples in the material

e.g.

z: mgo-btags gopt\'a

bzhes-thud sip'ty:/ (st) sip'thy:

nya-rdung-ba nab'don

shwa-gdan sab'dex:

sa-bdag sab'\text{da}

protection

butter-milk cheese

fisherman

deer-skin mat

landowner

\textit{1} kha-btags khada scarf (not * khapta) is not b-Piece but z-Piece, and the lexical item btags exemplified by it is therefore taken to be different from that of mgo-btags.
From the above examples btags, thud, gdan,¹ bdag, bdun, and rdung, of which btags and rdung are Verb lexical items, can be classified as b-Piece (for others see Appendix VI).

ii. k Juncture

z: \(1/\varepsilon/a/\theta/\partial/\delta,\)

\[
\text{(lab. + occ. + \{voicels.\}, (voicels. + vel. + plos.)}
\]

\[
\text{(voice), (voice + vel. + plos.)}
\]

g: (u + long dur.), (vel. + plos. + voice)

η: no examples in the material

d: (i/ε + long dur.), (vel. + plos. + voice)

n: (ə/y + short dur.), (vel. + nas. + voice), (vel. + plos. + voice)

¹Supported by shwa-gdan (above), ko-gdan ko\(\text{bd}\): hide seat, and rtswa-gdan tsab\(\text{bd}\): grass mat, but opposed by kha-gdan kha\(\text{bd}\): (not *khab\(\text{bd}\):) seat cover, which would require its classification as z-Piece, unless treated as two Words.
b: no examples in the material
m: \( \text{o}, (\text{lab.} + \text{nas.}), (\text{vel.} + \text{plos.} + \text{voice}) \)
r: (e + long dur.), (vel. + plos. + voice);

\[ \text{e.g.} \]

\[
\begin{align*}
z: \text{sgn}-\text{sk}y\text{a} & \quad \text{sgn}, \text{sk}y\text{a} \\
& \quad \text{sgn}\text{a} \\
& \quad \text{sk}y\text{a} \\
& \quad \text{brgyad} \\
g: \text{drug}\text{-brgya} & \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
d: \text{nyi}\text{-brgya} & \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
& \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
& \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
& \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
n: \text{bdun}\text{-brgya} & \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
& \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
& \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
& \quad \text{b} \text{r} \text{g} \text{y} \text{a} \\
m: \text{gsa}\text{mb}r\text{gya} & \quad \text{gsa}\text{m} \text{b} \text{g} \text{y} \text{a} \\
r: \text{ser}\text{-sk}y\text{a} & \quad \text{sk}y\text{a} \\
\end{align*}
\]

From these examples \text{sk}y\text{a}, \text{brgya}, and \text{brgyad} can be classified as b-Piece (App. VI).

\[ \text{iii. C Juncture} \]

\[
\begin{align*}
z: \text{u/a/o/\~} & \quad (\text{lab.} + \text{occ.}) \\
& \quad \{\text{voicels.}, (\text{voicels.} + \text{aff.} + \text{dorso-pal.} \quad \{\text{asps. (st)} \} \\
& \quad \quad \text{non-asps.} \} \\
& \quad \quad \{\text{voice}, (\text{voicels.} + \text{aff.} + \text{dorso-pal.} + \text{non-asps.}) \} \\
& \quad \quad \{\text{voice} + \text{aff.} + \text{dorso-pal.} \} \\
g: (\text{a/\~} + \text{short dur.}), (\text{vel.} + \text{occ.}) \\
& \quad \{\text{voicels.}, (\text{voicels.} + \text{aff.} + \text{dorso-pal.} + \text{non-asps.}) \} \\
& \quad \quad \{\text{voice}, (\text{voice} + \text{aff.} + \text{dorso-pal.}) \} \\
\end{align*}
\]

\[ \text{But sa-sk}y\text{a sagje Saky}a \text{ and li-sk}y\text{a lugje [?Likya] (not s}a\text{p'k}j\text{e, l}i\text{p'k}j\text{e) support the classification of sk}y\text{a, if the same lexical item, as z-Piece.} \]
η: (~ + short dur.), (nas. + {vel.},)\(\{\)voice + aff. + dorso-pal.)\(\}\)

d: (e/ø + long dur.), (aff. + dorso-pal. + voice)

n: (t/ε/γ + short dur.), (nas. + pal.), (voice + aff. + dorso-pal.)

b: (lab. + occ. + voice), (voice + aff. + dorso-pal.)

m: (lab. + nas.), (voice + aff. + dorso-pal.)

r: (e/ε + long dur.), (voice + aff. + dorso-pal.);

e.g.

z: sa-bcad sap'tše:/sab'dʒe:

1to-chas top'tše:/tob'dʒe:

khyi-spyang chip'tšä:/ch'b'dʒä:

sna-'phyid nabh'tsi

rdo-phyed dop'tşi/(st)dop'tšihe:

rma-bya mab'tše/mab'dʒe

g: dmag-chas mak'tše:

drug-cu tšog'dʒo

η: shangs-'phyid žəndʒi/žəndʒi

d: bragad-cu že:dʒo

bod-chas phø:dʒe:

n: sman-bcos mendʒe:

nyin-phyed nɪndʒe:/nɪ:dʒe:

b: nub-byang nabh'tšä:

division of work

provisions

jackal

handkerchief

stone dust

peacock

military uniform

sixty

handkerchief

eighty

Tibetan articles

medical treatment

half-day

north west
m: \textit{gsum-cu} \textit{somdzo}  
\textit{lam-phyed} \textit{lamdže}:

r: \textit{gser-phye} \textit{se:dʒi}  
\textit{nyal-chas} \textit{ne:dʒe}:

From these examples \textit{bcad}, \textit{bcu/cu}, \textit{bcos}, \textit{chas}, \textit{spyang}, \textit{'phyid}, \textit{phye}, \textit{phyed}, \textit{bya}, and \textit{byang}, of which \textit{bcad} is a Verb lexical item, can be classified as \textit{b-Piece (App. VI)}.

iv. tr Juncture

z: \textit{r/a/ʌ/ɔ}, (lab. +

\begin{align*}
\begin{cases}
\text{occ.} + \{ \\
\text{voice}, (\text{voice} + \text{apico-alv.} + \text{aff.})
\end{cases}
\end{align*}

\begin{align*}
\begin{cases}
\text{plos.} + \text{voice}, (\text{voice} + \text{apico-alv.} + \text{fric.})
\end{cases}
\end{align*}

1But \textit{tradʒe}: \textit{khra-bcad} window partition (not \textit{*trap'tʃe:}) supports the classification of \textit{bcad}, if the same lexical item, as \textit{z-Piece}.

2Supported by \textit{lto-chas} (above) and \textit{tap'tʃe:/tab'dʒe}: \textit{rta-chas} harness, but \textit{photʃe}: \textit{pho-chas} man's dress, and \textit{jadʒe}: \textit{rgya-chas} Chinese dress (not \textit{*phɔp'tʃe:}, \textit{*jab'dʒe:}) require \textit{chas} to be classified as \textit{z-Piece}.

3But \textit{dʒa:dʒi}: \textit{lugs-’phyid} cleansing (not \textit{*dʒa:p’tʃi:}) would require \textit{’phyid} to be classified as \textit{z-Piece}.
g: \(\text{a/\text{\textdialect{g}}}/\text{\textdialect{g}} + \text{short dur.})\), (\text{vel.} + \text{occ.} +
\begin{align*}
\{& \text{voicels.}\}, (\text{voicels.} + \text{apico-alv.} + \text{aff.} + \begin{cases} & \text{asp.} \text{(st)} \end{cases} \\
& (\text{voice}), \ (\text{voice} + \text{apico-alv.} + \text{aff.})
\end{align*}
\}
\}
\}
\\eta: \ (\text{\textdialect{g}} + \text{short dur.}), (\text{vel.} + \text{nas.}), (\text{voice} + \text{apico-alv.} + \text{aff.})
d: \ (\text{\textdialect{e/y}} + \text{long dur.}), (\text{apico-alv.} + \text{aff.} + \begin{cases} & \text{voicels.}\text{(st)} \\
& \text{voice}
\end{cases}
\}
n: \text{no examples in the material.}
b: \ (\text{\textdialect{g}} + \text{short dur.}), (\text{lab.} + \text{voice} +
\begin{align*}
\{& \text{occ.}\}, (\text{voice} + \text{apico-alv.} + \text{aff.} +
\begin{cases} & \text{occ.} \\
& \{\text{fric.}\text{(ft)}\}
\end{cases}
\}
\}
\}
\}
m: \text{no examples in the material.}
r: \text{no examples in the material.}
e.\text{g.}
\begin{align*}
z: \text{wa-phrug} & \quad \text{\textdialect{g}}\text{ap’tru:/\text{(st) w\textdialect{g}}p’tru:} \quad \text{fox cub} \\
\text{ra-phrug} & \quad \text{\textdialect{g}}\text{ap’tru:/r\textdialect{g}}\text{b’dru:} \quad \text{kid} \\
\text{sa-khra} & \quad \text{\textdialect{g}}\text{ap’tre\textdialect{g}}\text{at}\text{\textdialect{g}}\text{ap’tre} \quad \text{map} \\
\text{mgo-dkrog} & \quad \text{\textdialect{g}}\text{op’tre:/\text{gob’dro:}} \quad \text{upset} \\
\text{\textdialect{g}}\text{ha-bris-pa} & \quad \text{\textdialect{g}}\text{abri:-} \quad \text{painter} \\
\text{\textdialect{g}}\text{rta-sbra\textdialect{g} (\text{rags})} & \quad \text{\textdialect{g}}\text{bra} \quad \text{body of horsemen} \\
g: \text{lug-phrug} & \quad \text{\textdialect{g}}\text{ok’tru:/\text{lagdru:}} \quad \text{lamb} \\
\text{lcags-khra} & \quad \text{\textdialect{g}}\text{ak’tre/\text{\textdialect{g}}ak’tre} \quad \text{wire netting} \\
\text{\textdialect{g}}: \text{tshong-phrug} & \quad \text{\textdialect{g}}\text{h\textdialect{g}ndru:} \quad \text{agent}
d: gees-phrug        tse:tru:        darling child
gsos-phrug         sy:dru:         adopted child
shel-khra          se:dre          glass window
b: slab-phrug       lb:dru:         pupil
zhabs-bro          jsh'ro/jy'ro      dancing

From these examples khra, phrug,1 bris, bro, and sbrags (rags or hrag), of which khra and bris are Verb lexical items, can be classified as b-Piece (App. VI).

v. t's Juncture

z: /s/ (lab. + occ. + (voice), (voice + fric. + alv.)
   /s/ (lab. + nas. + (voice), (voice + fric. + alv.)
(There are no g, q, d, n, b, m, or r examples in the material);
   e.g.
   z: klu-btsan 1b'z:   [? powerful waterdemon]
      lha-btsug 1p'su:/1b'zu:  [?]  
whence btsan and btsug, the latter of which is a Verb lexical item, can be classified as b-Piece (App. VI).

vi. n Juncture

d: tr/dru: *pho:tru:) would require phrug to be classified as z-Piece (21213132, v).
z: khvi-smyo-ba  chumpo:  mad dog
sgra-(b)ryan  drampè:  guitar
ko-mnyed-pa  kompe:-  tanner;

whence smyo, (b)ryan, and mnyed, of which smyo and
mnyed are Verb lexical items, can be classified as b-Piece.

vii. 1 Junction

z: a/*a,  (lab. + occ. + voice),  (voice + alv. + lat.)
g: (a/* + long dur.),  (voice + alv. + lat.)
η: (a + long dur. + nas.),  (voice + alv. + lat.)
d: (i + long dur.),  (voice + alv. + lat.)
b: (y + short dur.),  (voice + lab. + occ.),  (voice + alv.
+ lat.)
m: l/a,  (lab. + nas.),  (alv. + lat.);

e.g.

z: gru-gla  tryble  boat hire
   kha-bsalad/las  (khablè:)pshad-pa  [?equivocate]
g: g.vog-gla  jole  servant's wages
   btage-gla  ta:le  [?]
η: khang-gla  khà:le  house rent
d: bris-gla  trì:le  [? hire of a clerk]
b: gsab-gla  sryble  [? repayment charge]
m: tshems-gla  tshímle  sewing charge
   zam-gla  samle  bridge toll

From these examples gla and bsalad/las can be classified as
b-Piece (App.VI); there are no Verb lexical-items.

viii. s Juncture

z: (va/\a/\a/\a, (lab. + occ. +

\{voicels.\}, (voicels. + fric. + pal./alv.)

\{voice\}, (voicels. + fric. + pal.)(ft)

g: (\^ + short dur.), (vel. + occ. + voice), (voicels. + fric. +

\{voice\}, (voicels. + fric. + pal.)(ft)

\eta: (\^\^ + long dur. + nas.), (voicels. + fric. + alv.)

d: (\^\^ + long dur.), (voicels. + fric. + pal./alv.)

\eta: (\^\^ + long dur.), (voicels. + fric. + pal./alv.)

b: (\^\^ + short dur.), (voicels. + fric. + alv.)

r: (\^\^\^ + long dur.), (voicels + fric. + alv.);

e.g.

z: cha-bzhag  tshap'ja/tshab'ja  reliance

chu-gzhong  tshap'jö:/tshob'jö:  bath tub

 nga^'zhi-ba  gap'je:  [?man from Gapshi]

chu-bshal  (tshap'/b'je:) thong  wash

khyi-shig  chip'ji  flea

dngo-bzo-ba  npö'sö:  shoemaker

nya-zin-pa  npö'sim-

rtsh-bau  tshö'sö  fisherman

[g: stag-zhi-ba  tag'je:  'epithet of Ishwara'

(Jaeschke)

\eta: shing-bzo-ba  jö:so:  carpenter]
d: kha bshal-bshal \((sc:sc:)\) to rinse the mouth  
zhal-bzas \(sc:sc:\) pastries  
n: bdun-cu don-bzhi \(th\:f:lu\) seventy four  
kun-bzang \(k\:f:s\:\) Kunsang  
b: chiba-bsu-ba \(t\:shup\:'so:\) luggage  
phebs-bsu\(^1\) \(phup\:'so:\) welcome  
r: gser-bzo-ba \(se:so:\) goldsmith

From the above examples \(zh\:(-ba)\), \(zhong\), \(bzag\), \(bshi\),  
shig, \(^2\) bshal, \(zin\), \(bzo\), \(bzas\), \(bzang\), and \(bsu\), of which  
bzag, bshal, zin, bzo, and bsu, together with \(bzi\) and  
bsho\((s)\) not exemplified here, are Verb lexical items, can be  
classified as b-Piece (App. VI).

21213135. g

The only examples of the g Initial Piece are also  
examples of either the z or the n Quality Piece, and of  
the c, n, or s Juncture Piece. The z-Quality-Piece examples  
are somewhat inconsistent; and more than one exponent has  
had to be given. These exponents are:

\(^1\)As far as the Verbal Phrase is concerned, the Syllable-  
final features of \(phebs\) require it to be classified in terms  
of the Quality system as d-Piece; but in the disyllabic Noun  
it is sometimes characterized by final labial occlusion \((p' b')\),  
and must therefore be classified not as d-Piece but as b-Piece.

\(^2\)But \(\text{d're-shig} \text{dr}uf\) (not \(\text{drip'si}\)) bug would require shig to  
be classified as z-Piece (21213132, x).
1. c Juncture

z: 1. \(2/\), (vel. + occ. +\{(voice), (voice)(ft),\} dorso-alv.)

ii. \(\left\{\begin{array}{l}
(o/ o^1 i + long \text{ dur.}) \\
(\lambda/ \lambda + short \text{ unit})
\end{array}\right\}\{(voice), (voice)(ft), \}

n: \{(y + long \text{ dur.} + nas.), \}

n: \{(y + short \text{ unit}), (nas. + pal.)(st), \}

dorso-alv.)

e.g.

z: 1. bcu-gcig \(t\hspace{-0.1em}jak'\hspace{-0.1em}/\hspace{-0.1em}g't\hspace{-0.1em}ji:\) eleven

nvi-shu rtse-gcig \(tsak'\hspace{-0.1em}/\hspace{-0.1em}g't\hspace{-0.1em}ji:\) twenty one

ii. sum-cu so-gcig \(so:t\hspace{-0.1em}ji:\) thirty one

bzhi-bcu zha-gcig \(se:t\hspace{-0.1em}ji:^1\) forty one

drug-cu re-gcig \(ri:t\hspace{-0.1em}si:k^2\) sixty one

dgu-bcu so-gcig \(kh\hspace{-0.1em}ot\hspace{-0.1em}si:k\) ninety one

n: bdun-cu don-gcig \(th\hspace{-0.1em}j\hspace{-0.1em}si:k/th\hspace{-0.1em}yi:t\hspace{-0.1em}si:\)\(^3\) seventy one

These examples raise a number of difficulties: (1) the fact that all these examples are c-Piece (Closure, \(212133\)), with the vowel of the first syllable \((o: \wedge i: \ddot{y}: \ddot{a}:)\)

1Thought to be an error for \(fi:t\hspace{-0.1em}ji:\); cf. bzhi-bcu zha-dgu \(fi:9\ddot{a}\) forty nine.

2Also \(re t\hspace{-0.1em}si:k\).

3The initial voicelessness of \(gcig \)\((-t\hspace{-0.1em}si:k'/-t\hspace{-0.1em}si:)\) in all these examples requires that it be considered as in Interverbal Junction with the preceding Syllable; but the relatively close vowel quality of that Syllable requires both Syllables to be treated as contained in a c Piece (Closure, \(212133\)), and therefore as contained in the same Word. Numbers have special problems.
harmonizing with that of the second, guarantees that the
two Syllables are in Intraverbal Junction with each other,
and is supported by the velarity of tseg'tʃi: and tsaŋ'tʃi:;
but these two criteria are in conflict with the initial
voicelessness of gcig (tʃ), which, when preceded by a vowel
(o: e: i: ʌ ə ), is a criterion of Interverbal Junction:
(ii) the vowel of the first Syllable in go-cig (ə) and
Inga-bcu nga-gcig (ʌ) is, as one would expect, short in
duration; but the corresponding vowels of so-gcig (o:)
zhe-gcig (e:), and re-gcig (i:) are long; and no reason can
be given for this difference. The long duration of so, zhe,
and re suggests that the examples containing these lexical
items cannot be z-Quality-Piece but must be r-Piece
(cf. 21213132, iv); but the short vowel duration of these
same lexical items, together with following labial occlusion,
in e.g. so-bʒi so-bzhi, səb'dʒ: zhe-bdun, and reb'gje:
re-brgyad (b-Initial examples 21213134), supports the
previous identification, as z-Piece. Even so, gcig can be
classified as g-Piece, on account of the initial velarity (g')
in bcu-gcig and rtsa-gcig.
ii. n Juncture

z:
  i. ə/ʌ, (vel. {occ.}(st),{nas.}, {nas. + pal.})

ii. {(ə/ɛ/ɪ + long dur.),} 
{(/ restructuring.)} 
{(ʌ/ə + short "n"),} 

n: (y + long dur. + nas.), (nas. + pal.);

e.g.

z: i. bcu-gnyis tʃəmni:
    nvi-shu rtṣa-gnyis tʃəmni:/tsʌŋ'ni:
ii. sum-cu so-gnyis so:ni:
    bzhi-bcu zhe-gnyis se:ni: 1
    drug-cu re-gnyis ri:ni: 2
    g: gcig-gnyis tʃi:mi:
    n: bdun-cu don-gnyis thy:ni:
    bdun-gnyis dʒi:ni:

From these examples gnyis/nvi can be classified as g-Piece.

iii. s Juncture

z:
  i. ə/ʌ, (vel. + occ. +{voice}(ft),) 
    {voice}(ft),{alv. + fric. + voice.)

1 Thought to be an error for ji:-; see p. 492, n.1.
2 Also rt ni:, rt səm.
ii. \{(o/e/i + long dur.),\}
\{(\&/\& + short "\"),\}
\{(alv. + fric. + voicels.)\}

n: (y + long dur. + nas.), (alv. + fric. + voicels.).
e.g.

z: i. bcu-gsum
tʃɔksɔm
nyi-shu rtsa-gsum
tʃɑk'sɔm/tsʌŋ'sɔm
twenty three

ii. sum-cu so-gsum
so:ɔm
thirty three

bzhi-bcu zhe-gsum
ʃe:ɔm
forty three

drug-cu re-gsum
ri:ɔm
sixty three

n: bdun-cu don-gsum
thʃ:ɔm
seventy three

phun-sum
phʃ:ɔm
three perfections

From these examples gsum/sum can be classified as g-Piece.

gcig, gnyis/nyi, and gsum/sum are the only lexical items
that can be classified as g-Piece; they do not, therefore,
include any Verbs.

21213136. **Summary**

A comparison of the exponents of the five Initial terms
n, z, m, b, and g shows that in certain types of Quality Piece
not all of them can be distinguished from each other.

1 Thought to be an error for jì:-; see p. 492, n.1.
2 Also rɛ ni:, rɛ əm.
The degree to which each of the eight types of Quality Piece affords criteria of each of the five Initial terms is:

<table>
<thead>
<tr>
<th>Type of Quality Piece</th>
<th>degree of differentiation of Initial terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>z:</td>
<td>all five (n, z, m, b, g) distinguished</td>
</tr>
<tr>
<td>g, d, b, r:</td>
<td>n or m versus z or b (no g examples)</td>
</tr>
<tr>
<td>η, n, m:</td>
<td>none</td>
</tr>
</tbody>
</table>

Thus it is only in the z Quality Piece that each of the five Initial terms can be identified.

The initial features that characterize the second Syllable of an Initial Piece that is also a z Quality Piece are:

<table>
<thead>
<tr>
<th>g</th>
<th>k'tf</th>
<th>η</th>
<th>k's</th>
</tr>
</thead>
<tbody>
<tr>
<td>g'tf</td>
<td>η</td>
<td>g's</td>
<td></td>
</tr>
<tr>
<td>m</td>
<td>mdz</td>
<td>md</td>
<td>mg</td>
</tr>
<tr>
<td>n</td>
<td>ηdz</td>
<td>nd</td>
<td>ηg</td>
</tr>
<tr>
<td>b</td>
<td>p'tf(h)</td>
<td>p's</td>
<td>p't(h)</td>
</tr>
<tr>
<td></td>
<td>b'dz</td>
<td>b'd</td>
<td>b'y</td>
</tr>
<tr>
<td>z</td>
<td>tf</td>
<td>η</td>
<td>s</td>
</tr>
<tr>
<td></td>
<td>d3</td>
<td>d</td>
<td>dz</td>
</tr>
</tbody>
</table>

(z also: n m η r j w v). The first Syllable is characterized by final 仄, , a, 仄, 仄, or ə.

In the g, d, b, and r types of Quality Piece the m and n Initial terms are distinguished from the b and z by a sequence
of two consonants of which the first is a nasal and the second a (voiced) plosive or affricate, or coronal alveolar fricative (mb md mg mdʒ mdr mz; ɳb ɳd ɳg ɳdʒ ɳdr ɳz), while the characteristic features of the b and z terms are sequences of voiced or voiceless stop followed by a plosive, affricate, fricative, or lateral, e.g. b’d b’dʒ b’z p’s; g’b g’dʒ g’z k’s g’l, or of nasal followed by nasal, e.g. mm ɭm, or a single consonant, e.g. b m g dʒ l s. The m Initial term cannot, however, be distinguished from the n in this type of Piece, except that sequences in which the second consonant is b or dr can only be n, e.g. jundrā:vig-phreng sentence, jmdrā rgyab-dré quarrel, tṣnboṃ gcig-bum one hundred thousand, jmb: zhab-phongs anus. Similarly, the Initial term z cannot be distinguished from the b, except that sequences in which the second consonant is labial, e.g. mag’bō: damg-dpon officer, mīzma: mig-dmar Mingmar, tṣhumme: chibs-smed crupper, or a non-palatal nasal (n m ɳ), e.g. jmnī: rgyab-snon reinforcements, tṣhornč: phyug-nad cattle disease, and the single intervocalic consonants n, m, ɳ, r, j, and w, characterize only the z.

In the g and the b types of Quality Piece the first Syllable of the Piece has nasality and non-nasality as alternant final features, nasality when the g, or b, Quality Piece is also m- or n-Initial, and non-nasality
when it is z- or b-Initial (except that nasality is appropriate to the z-Initial Piece when that Piece is also an example of n or m Juncture);\(^1\) e.g.

\[ \text{g Quality} \quad \text{b Quality} \]

\[
\begin{array}{cccc}
\text{phag} & \text{lcegs} & \text{stsbs} & \text{zhabs} \\
\text{m phan/nds} & \text{txmdy}: \\
\text{n} & \text{tshndo} & \text{symdr}:
\end{array}
\]

\[
\begin{array}{cccc}
\text{b phag'tr/dru: tshak'tre} & \text{\(\text{sxb'd}\text{f}\):} \\
\text{z phag'zi} & \text{tshag'dsp} & \text{\(\text{sxb'dzi}\):}
\end{array}
\]

\(\text{m: phag-mdo } [\text{Phagdo}], \text{ystsbs-mthun } [\text{friendly manner}];\)

\(\text{n: lcegs-mds' knitting needle, zhabs-'dren disgrace; b: phag-phrug piglet, lcegs-khra wire netting, zhabs-gdan } [\text{foot mat}]; \text{ z: phag-rdzi swineherd, lcegs-thab stove, zhabs-phyi servant}).\)

In the z-Initial Pieces that are also examples of n or m Juncture, the first Syllable of the Piece can have final nasality, matching the initial nasality of the following Syllable, and has non-nasality in types of Juncture other than the n or the m; e.g.

\(^1\)The lexical item concerned is also characterized by non-nasality in Interverbal Junction, e.g. \(\text{pha: phag pig, tsh: lcegs iron, (tsh}\text{h}\text{d}\text{sp (byed-)}\text{stsbs manner of doing, sdp zhabs foot, mi: mig, eye, (ko)}\text{gjsp (sku-)}\text{rgyab below, tship chibas mount.}\)
The final nasality or non-nasality of the first Syllable of the g or the b Quality Piece is, therefore, a function of the Initial Piece and the Juncture Piece.

Somewhat similarly the vowel duration of the first Syllable of the d and the r Quality Piece is a function of the Initial system: the duration is short in the m and the n Initial Piece, and long in the b and the z (long duration is also appropriate the first-Syllable lexical item, — d-Piece or r-Piece — in Interverbal Junction with a following Syllable); e.g.

1 For Interverbal Junction cf. p. 493, n. 1.
Initial Quality Piece

d | r
---|---
m: | chencha:
| tshendo: | nimbom | sendo:
| ni: | ni: | se:
b: | ni: | se:
z: | ché:ba: | tsho:džä: | ni:ge | si:dru
Inter: | ché: | tsho: | ni: | se:

(m: khyad-mtshar astonishment; n: mchod-dwogs may drink, nyi-'bum two-hundred thousand, gser-mdog gold colour; b: nyi-brgya two hundred, gser-phye gold dust; z: khyad-par difference, mchod-chang beer, gnyis-ka both, gser-khri golden throne; Inter.: khyad difference, mchod drink, gnyis two, gser gold.)

In the remaining three types of Quality Piece, the η, n, and m, on the other hand, the possibility of distinguishing the five types of Initial Piece is very limited; but they can be identified, or partially distinguished, by such medial sequences as the following:
Sequence

<table>
<thead>
<tr>
<th></th>
<th>V:V/w/j/r/n/m/n</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Vm</td>
</tr>
<tr>
<td>ii.</td>
<td>Vm</td>
</tr>
<tr>
<td>iii.</td>
<td>Vm</td>
</tr>
<tr>
<td>iv.</td>
<td>Vm</td>
</tr>
<tr>
<td>v.</td>
<td>Vm</td>
</tr>
<tr>
<td>vi.</td>
<td>Vm</td>
</tr>
</tbody>
</table>

The role of the Initial system in determining alternant features of the first Syllable of a g, b, d, or r Quality Piece has already been referred to (p.497); and at the same time it was pointed out that at least one such alternation (nasality/non-nasality) can also be a function of type of Juncture Piece (m/n versus the rest). It seems appropriate therefore to follow the Initial system with the Juncture system.

2121314. **Juncture**

The Juncture system comprises the eleven terms p, t, k, c, č, č, tǎ, n, m, l, s, q. Its role is well illustrated by phonetic variation in the n Quality Piece (212131112, (2). In this type of Piece the first Syllable of the Piece is characterized by Syllable-final nasality, in the following
forms: labial (m), dental (n), velar (ŋ), palatal (p),
alveolar (n), vocalic (v). The coarticulated
localization feature of the nasality can be related to the
initial localization and other features of the following
Syllable:

1. -mb-, (ft)-nm- ii. -nd- iii. -ŋŋ- iv. -ndʒ-
v. -ndr- vi. -nz- vii. -v:z(ft)/m/n/p/ŋ/l/r/j/w/s/f/θ/v


e.g.

1. da-ga rang vin-pa (jimbo) 'dra
   a'u-rtse vin-pa (jimm) 'dra
2. vin-dwogs (jindo:) kha-po red
3. shes-kyi-med sin-\-
4. mkhvon-byung-ngas kʃęndʒə-
5. bedad-kyi-vin'-gro -jindra
6. shes-tsang lcenzä:
7. phyag-dpe klog-nyan-'tsho
   rdo-rje gling-la phrin-ma-
   song tʃhĩma-
   skyon-rog (cʃ:ŋɛ:) vin-pa-no
   skyon-rog (cʃ:ro:) gnang
   thon-yong thʃ:ʃ5
   thon-song thʃ:ss5

   it certainly looks like it
   it seems to be enough
   it may possibly be
   I do not know
   did you know
   he will probably stay
   since he knows
   people who read books
   he did not go to Darjeeling
   are you printing
   please print
   they (customarily) go out
   he went out
I see you are well
we have not, I suppose

In examples (v) and (vi) the final consonant of the first Syllable is symbolized by \( n \) (alveolar nasal) in both; but a more detailed transcription would show that the area of contact of both tongue and alveolar ridge is not the same in both: in (v) the contact is apical; and only the tongue tip and a correspondingly narrow area of the rear part of the alveolar ridge is concerned (\(-n\text{ndr}-\)); in (vi) the contact is coronal; and the blade of the tongue and a wide area of the alveolar ridge extending almost to the teeth are concerned (\(-n\text{nz}-\)). These differences in type and area of contact are indicated by \( \text{dr} \) as opposed to \( z \).

It is clear from the n-Quality-Piece examples that seven different types of disyllabic Piece will need to be distinguished if the Syllable-final differences of the first Syllable (the n-Piece Syllable) are to be accounted for in association with the corresponding differences in initial feature of the following Syllable; i.e. a seven-term system, the Juncture system, applicable to the disyllabic n Quality Piece would be established; and the sevenfold final variation of the n-Piece (or first) Syllable would then be a function of the seven-term-
system.

This seven-term system would not be limited in function to accounting for the final variation of the first Syllable; in conjunction with the Tempo system it would account for the alternation of nasality (m) with plosion (b) as features of the Nominalizing-Particle Syllable pa in example (i): in the n Quality Piece, in Fast-Tempo utterances, pa is characterized by nasality, but otherwise by plosion.

The n-Piece examples given above are all, grammatically Verb + Verbal Particle and Verb + Nominalizing Particle; but with very few exceptions, the same phonetic features characterize other grammatical types of n Piece, including the disyllabic Noun. Since, as has been shown (pp. 416-8), the disyllabic Noun can contain Verb lexical items, it seems useful to follow the practice of the preceding section (Initial, 2121313) and state the exponents of the Juncture system with reference to all three grammatical types of Piece, Verb + Particle (Verbal or Nominalizing) and disyllabic-Noun, noting the very few differences as they arise.

The n Quality Piece, as has been shown, would require a seven-term system, if, that is, Syllable-final variation in the first Syllable is to be accounted for syntagmatically,
i.e. in association with matching features of the initial of the second Syllable of the Piece; but types of Quality Piece other than the n also show final variation in the initial Syllable of the Piece; and this variation does not necessarily conform to the seven types of Piece required for the n Quality Piece. Thus, in the n Quality Piece, where the initial Syllable is characterized by final nasality of vowel (\(\tilde{V}:\)) the matching initial features of the second Syllable are (cf. section vi above):

1. coronal-alveolar affrication (Fast Tempo):
   - \(z\)

2. (nasality + labiality/dentality/palatality/
alveolarity/velarity)
   - \(m\ n\ p\ \eta\)

3. laterality

4. (friction + alveolarity + apicality + voice)
   - \(r\)

5. (" + voicelessness)
   - \(s\ j\)

6. non-syllabic vowel

7. glottality + plosion

8. vowel

Apart from the question of Tempo in (i), each of these sets of co-articulated Syllable-initial features (ii - viii) agrees in requiring nasality of vowel (\(\tilde{V}:\)) in the preceding Syllable in all circumstances, and can therefore be grouped together; but in the b Quality Piece
These sets of features do not all require the same set of final features in the preceding Syllable, and have to be regrouped accordingly.

In the b Quality Piece the matching Syllable-final and Syllable-initial features:

<table>
<thead>
<tr>
<th>first-Syllable final</th>
<th>second-Syllable initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. (voice +{occ.}₁⁻ᵇ'₁⁻ᵐ}⁻ⁿ/ᵣ/₋ (nas. + non-lab.)</td>
<td></td>
</tr>
<tr>
<td>b. (nas.)(ft) nil⁻ᵇ'₁⁻ᵐ⁻(m) (nas. + lab.)</td>
<td></td>
</tr>
<tr>
<td>c. (fric.)(ft)⁻ᵇ'⁻β₁/r/₋ liq.</td>
<td></td>
</tr>
<tr>
<td>d. (voice)⁺occ.⁻ᵇ'⁻ᵣ⁻s/j/₋ (voicels. + fric.)</td>
<td></td>
</tr>
</tbody>
</table>

(there are no examples in the material of initial V in the second Syllable); e.g.

1. Verbal Phrase only.
2. disyllabic-Noun Piece only.
3. in the Verbal Phrase only.
people teaching English

if it should spread

he did not speak

crupper

please teach me reading and writing

[?repayment charge]

luggage

In fact if the same (Juncture) system is to serve for both the b and the n Quality Piece, one of the terms of the seven-term system proposed above for the n Quality Piece would have to be split into four, thus increasing the number of terms needed in the system from seven to ten.

Even those ten terms however would be insufficient to deal with Syllable-final variation in one type of Quality Piece, the z; and eleven are in fact needed in order to be able to account syntagmatically for the final features of the first Syllable and the initial features of the second. These eleven terms (p, t, k, c, ꞌr, ꞌs, n, m, l, s, z) are as far as possible named from the symbols that
regularly indicate each of them in the orthography;\(^1\) but \(\text{tr}\), which is regularly indicated in the orthography by \(\text{kr}, \text{khr}, \text{sr}, \text{dr}, \text{pr}, \text{phr},\) and \(\text{br}\) (as initial of the second syllable of the Piece), irregularly by \(\text{sr}\), is more conveniently named from the phonetic symbol \(\text{tr}\), while \(z\) is so named from zero.

The form of statement used for the exponents of the Initial system (2121313) anticipated the Juncture system, and gave those exponents within a framework provided by the Juncture system. Indeed the statement of exponency and the examples given above for the items of the Initial system can stand for the terms of the Juncture system; the relevant sections are:

<table>
<thead>
<tr>
<th>Initial</th>
<th>Juncture</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 12 13 13 1</td>
<td>n  i  ii  iii  iv  v  vi</td>
</tr>
<tr>
<td>2  z  &quot;  &quot;  &quot;  &quot;  &quot;  &quot;  &quot;  vii  viii  ix  x  xi</td>
<td></td>
</tr>
<tr>
<td>3  m  i  ii  iii  iv</td>
<td></td>
</tr>
<tr>
<td>4  b  &quot;  &quot;  &quot;  iv  v  vi</td>
<td></td>
</tr>
<tr>
<td>5  g  i  ii  iii</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\)The regular orthographic indications of each type of Piece are the following, when initial in the second Syllable:

- (p) \(\text{p}, \text{ph}, \text{b}; \text{t}, \text{t}, \text{th}, \text{d}, \text{sl}; \) (k) \(\text{k}, \text{kh}, \text{g}; \) (c) \(\text{c}, \text{ch}, \text{l}, \) \(\text{py}, \text{py}, \text{by}; \) (tr) \(\text{kr}, \text{khr}, \text{sr}, \text{dr}, \text{pr}, \text{phr}, \text{br}, \text{sr}; \)
- (ts) \(\text{ts}, \text{tsh}, \text{dz}; \) (n) \(\text{n}, \text{nv}, \text{ng}, \text{nv}; \) (m) \(\text{m}; \) (l) \(\text{l}, \text{kl}, \text{gl}, \text{bl}, \text{rl}, \text{r}, \text{dhr}, \text{y}, \text{dby}, \text{w}, \text{db}, \text{b}, \text{?}; \) (s) \(\text{s}, \text{sh}, \text{z}, \text{zh}, \text{a}; \)
- (z) \(\text{z}, \text{l}; \)
The second-Syllable lexical item of each of these eleven types of Juncture Piece can be classified accordingly, as p-Piece, t-Piece, k-Piece, etc. after the type of Juncture Piece. Thus, the lexical items in 21213131, (i), which are described there as n-Piece (Initial) are also p-Piece (Juncture), those in (ii) are both n-Piece (Initial) and t-Piece (Juncture), and those in (iii) both n-Piece and k-Piece. Each of the examples of n-Initial, z-Initial, m-Initial, b-Initial and g-Initial lexical items can then be given an additional classification, in accordance with type of Juncture Piece. By way of example the following Verb lexical items are classified as:

p-Piece  'bul/phul, 'phar, 'bar, 'bud; spung, phan, phebs

t- "  'du, 'dug, 'ded, 'dog, ldang; thar, thob; mthun, 'dul; btags, rdung

k- "  bsuk, 'khor, 'gal, 'gor, 'gag, 'gyur; skyabs, skye, skyel/bskyal, bsok, khyab, mkhyen, 'khyud, dgo/dgos, rgyag, rgyas, rgyugs, bsgyur

c- "  bcug/'lug, 'lag, 'byor; bcar, chad, byed, sbyong/sbyangs; mchod, bcad

fr- "  'khrug, 'gro, 'dril/dris, 'dre/dres; sakra, grub, sgrig, drag, dran, sreg; dkrog, bris
ts-Piece 'dzing, 'dzom, 'dzeg, 'dzug; btsum, rtsis, rtsed, rtsom brtse, tshong; btsug

n- bsgal, nyes; smyo, mnyed

m- klog, slob/selabs, blug/blugs, lus, log

l- zhu/zhus, bzhugs, gzhol, gzigs, sub, bzhanga, bshags, bshad, srung; bzhag, bshal, zin, bzo, bau, bzi, bsho/bahos

Even though the exponents of each term of the Juncture system have been stated and exemplified, it is important to illustrate the phonetic variation of both first and second Syllable of the Juncture Piece in order to show that this variation is, often in conjunction with Tempo, a function of type of Juncture Piece. This phonetic variation is considered in the order p, t, k, c, tr, ts, n, m, l, s, q.

1. p

The second Syllable of the p Piece is characterized initially by labiality (mb b; 21213131, i; 21213132, i) except in the following types of Piece:

1. z Initial, g Quality, Vb. + Part.(ft) i:/a:/o:/u:g (212131112, 1, b)
2. " " , " , Noun (ft) i:/a:/o:/o (21213132, i)
3. " " , R " , Vb. + Part.(ft) i:/a:/o:/g (212131112, 1, b)
iv. z Initial, r Quality, Vb. + Part. (ft) \(1/e/\gamma/\phi/a/p/\sigma^f\)

The labiality is accompanied by plosion (b), and, in the n Initial Piece, in appropriate circumstances by nasality and plosion (mb).

The first Syllable of the p Piece is characterized by final labiality as follows:

1. g Quality, n Initial (ft) (m) (21213131, i)
2. m " , (" ) (m) ( " , " ; 21213132, i)
3. n " , (m) ( " , " ; " , " )

The p Piece is regularly indicated in the orthography by one or other of the letters p, ph, and b initially in the second Syllable (except initial db-, by-, by-, pr-, phr-, br-, and bl- and the syllables ba and bo).

The second-Syllable lexical item of a p Piece can be classified as p-Piece. The n-Initial and z-Initial lexical items listed for the p Piece at 212131112, l, b (pa/ba/ga/nga/ra), at 21213131, i (n Piece, e.g. 'bul/phul, 'phar, 'bar), and at 21213132, i (z Piece, e.g. spung, phan, ëbag) are therefore also classifiable as p-Piece.

ii. ti

The second Syllable of the t Piece is characterized initially by dentality (nd d t md (pt(h) bd; 21213131-2, ii; 21213133-4, i). The dentality is accompanied by
plosion \((d \ t(h))\), and, in the \(n\) Initial Piece, in the appropriate circumstances, by nasality and plosion \((nd)\). It is also accompanied by voice or voicelessness, and by aspiration, according to type of Piece, as follows:

**voice:**
- \(n\) Initial \((nd \ d)\) \((21213131, \text{ii})\)
- \(z\) " \((d)\) \((21213132, \text{ii})\), but only in Fast-Tempo utterances of the \(z/g/d/b\) Quality Piece for Tone-1 lexical items.¹
- \(m\) " \((md \ d)\) \((21213133, \text{i})\)
- \(b\) " \((bd \ d)\) \((21213134, \text{i})\), Tone-2 lexical items only.

**voicelessness:**
- \(z\) " \(z/g/d/b\) Quality \((t)\) \((21213132, \text{ii})\) Tone-1 lexical items only.
- \(b\) " \(z\) Quality \((pt, pth \ (st))\) \((21213134, \text{i})\)

**aspiration:**
- \(b\) " \(z\) Quality \((pth)\)(st) \((21213134, \text{i})\) Tone-1 lexical items.

Dentality characterizes the final of the first Syllable of the \(t\) Piece as follows:

i. \(g\) Quality, \(n/m\) Initial \((ft)\) \((n)\) \((21313131, \text{ii}; 21213133, \text{i})\)
ii. \(z/b\) " \(" \) \((n)\) \((21213132, \text{ii}; 21213134, \text{i})\)
iii. \(n\) " \((n)\) \((21213131-2, \text{ii}; 21213134, \text{i})\)

¹For \(h\) (and \(\bar{h}\)) see the Aspiration system \((212134\) ).
The t Piece is regularly indicated in the orthography by one or other of the letters t, th, or d (except dr-) initially in the second Syllable.

The second-Syllable lexical item of a t Piece can be classified as t-Piece. The n-, z-, m-, and b-Initial lexical items listed for the t Piece at 21213131, ii (n Piece, e.g. dwoga, lta, 'thug), at 21213132, ii (z Piece; e.g. thebs, rten, dar), at 21213133, i (m Piece; e.g. mthun, mdo, 'dul), and at 21213134, i (b Piece; e.g. btags, thud, gdan) are therefore also classifiable as t-Piece.

iii. k

The second Syllable of the k Piece is characterized initially by velarity (ŋ g mŋ ṭ), prevelarity (gj b'gj p'kj), or palatality (pression) (21213131, iii; 21213132, iii; 21213133, iii; 21213134, ii). The distribution of these three features in relation to the Initial, the Quality, and the Tempo systems is:

- **velarity:** n/z/m Initial (21213131-3)
- **prevelarity:** z Initial, ŋ/n Quality (21213132, iii)
  - b " (21213134)
- **palatality:** g " , z/g/d/b/m/r Quality (21213132, iii).

To some extent these features are complementarily distributed; but in types of Piece in which velarity contrasts with either
prevelarity or palatality, a further prosodic system is set up, to account not only for this consonantal
distinction but also for the associated difference in
degree of backness of vowel (Palatalization; 2121324 ).
All three features can be accompanied by plosion (g gj kj; j;
21213131-2, iii; 21213133, ii); in the n Initial Piece
the velarity is, in appropriate circumstances, accompanied
by nasality and plosion (ŋ 21213131, iii); and, in
z-Initial  z/b-Quality Verb + Particle Pieces in Fast
Tempo the velarity is accompanied by friction (γ;
21213132, iii).

Voicelessness (p'kj) combines with prevelarity in the
b-Initial z-Quality Piece for Tone-1 lexical items, except
in Fast-Tempo utterances (21213134, ii); otherwise it
is voice that is co-articulated with these features.

Velarity characterizes the final of the first Syllable
of the k Piece as follows:

1. n Quality
   i. (ŋ) (21213131-2, iii; 21213134, ii)

2. m
   n/z Initial (ŋ) (21213131-2, iii; 21213134, ii)

The k Piece is regularly indicated in the orthography
by one or other of the letters k, kh, or g (except kr-, khr-,
kr-, kl-, and gl-) initially in the second Syllable.
The second-Syllable lexical item of a k Piece can be
classified as k-Piece. The n-, z-, m-, and b- Initial lexical items listed for the k Piece at 21213131, iii (n Piece; e.g. bakul, khams, mgo), 21213132, iii (z Piece; e.g. ka, khang, ga), 21213133, ii (m Piece; e.g. mgyogs), 21213134, ii (b Piece; e.g. skya, brgya, brgyad) are therefore also classifiable as k-Piece.

iv. c

The second Syllable of the c Piece is characterized initially by contact of the dorsum with the forward part of the hard palate and the back of the alveolus (pdʒ dʒ tʃ mdʒ p'ʃ b'dʒ k'tʃ g'tʃ; 21213131-2, iv; 21213133-4, iii; 21213135, i). This dorso-palatality is accompanied by affrication (dʒ tʃ), with friction (ʃ) as an alternative, but only in a single instance in Fast Tempo (ʃy:ʒe zhus-byas having asked; 21213132, iv, z), and, in the n-Initial Piece, in appropriate circumstances, by nasality and affrication (ŋdʒ). These features are accompanied by voice and voicelessness, and by aspiration, as follows:

voice:  
n Initial (ŋdʒ dʒ)(21213131, iv)

z  "  (dʒ)(21213132, iv)  (i) ŋ/n/m/r Quality

(ii) ʒ/g/d/b Quality,

but only in ft utterances for Tone-1 h lexical items

m  "  (mdʒ dʒ)(21213133, iii)
b Initial \( bd_3 \ d_3 \) (21213134, iii) (i) \( \eta/n/m/r \) Quality

(ii) \( z/g/d/b \) Quality, but excluding Tone-1 h lexical items, and, for the remainder (Tone-1 h and Tone-2 h), only in ft utterances.

voicelessness: \( z \) " (tj) (21213132, iv) z/g/d/b Quality, Tone-1 h lexical items only

b " (tj tjh) (21213134, iii) z/g/d/b Quality

g " (ktj gtf tj) (21213135, i)

aspiration b " (tjh) (" , ") z Quality, Tone-1 h lexical items, in ft utterances, only.

Palatality characterizes the final of the first Syllable of the Piece as follows:

g Quality, n Initial (ft) (p) (21213131, iv)

\( \eta \) " , z " (" ) (" ) (21213132, iv)

n " , (" ) (21213131-2, iv; 21213133-4, iii);

and nasality of vowel in the following

\( \eta \) Quality, n/z Initial (ft) (V:) (21213131-2, iv)

n " , b " (" ) (" ) (21213134, iii)

The c Piece is regularly indicated in the orthography by one or other of the letters c, ch, or j initially in the
second Syllable, or by one of the combinations by, phy or by.

The second-Syllable lexical item of a c Piece can be classified as c-Piece. The n-, z-, m-, b-, and g-Initial lexical items listed for the c Piece at 21213131, iv (n Piece; e.g. lcaga, chag, 'iag, 'byor), 21213132, iv (z Piece; e.g. boar, chad, ja, spyi, phyi, byung), 21213133, iiii (m Piece; e.g. mchod, mched), 21213134, iiii (b Piece; e.g. bcad, chas, spyang, 'phvid, bya), and 21213135, i (g Piece; e.g. gcig) are therefore also classifiable as c-Piece.

v. tr

The second Syllable of the tr Piece is characterized initially by (i) alveolarity, apicality, and affrication (ndr dr tr p'tr p'tr b'dr; 21213131-2, v; 2121314, iv) or (ii) labial plosion or friction and apico-alveolar friction (br b'r)(21213134, iv). The alveolarity and apicality are additionally accompanied in the n Initial Piece, in the appropriate circumstances, by nasality and affrication (ndr). These features are further accompanied by voice and voicelessness, and by aspiration, as follows:

1The latter features appear to be restricted to Tone-2 items.
voice: n Initial (ndr dr)(21213131, v)
z " (dr)(21213132, v) (i) η/n/m/r Quality
    (ii) z/g/d/b " , but only in ft utterances for Tone-1 h lexical items
b " (bdr br βr dr)(21213134, iv)
    (i) η/n/m/b Quality
    (ii) z/g/d " , but only in ft utterances for Tone-1 lexical items
voicelessness z " (tr)(21213132, v) z/g/d/b Quality,
    Tone-1 h lexical items
b " (ptr ptr tr tr)(21213134, iv) z/g/d, Tone-1 lexical items only.
aspiration: b " (ptr tr)(21213134, iv), z/g Quality,
    Tone-1 h lexical items, in st utterances only.

Alveolarity and apicality characterize the final of the first Syllable of the tr Piece as follows:—
g Quality, n Initial (ft) (n) (21213131, v)
η " , n/z " (ft) (n) (21213131-2, v)
n "

The tr Piece is regularly indicated in the orthography by one or other of the combinations of letters kr, khr,
gr, dr, pr, phr, br (and sometimes sr) initially in the
second Syllable.

The second-Syllable lexical item of a tr Piece can be classified as tr-Piece. The n-, z-, and b-Initial lexical items listed for the tr Piece at 21213131, v (n Piece; e.g. 'khrug, 'gro, 'dri/drīs), 21213132, v (z Piece; e.g. dkrum, phrag, srah), and 21213134, iv (b Piece; e.g. dkrog, khra, brīs) are therefore also classifiable as tr-Piece.

vi. ts

The second Syllable of the ts Piece is characterized initially by (i) contact of the blade with the forward part of the alveolar ridge (dz) or (ii) approximation of the blade to this area (nz z mz p's b'z; 21213131-2, vi; 21213133, iv; 21213134, v). The alveolarity and coronality are additionally accompanied in the n Initial Piece, in the appropriate circumstances, and in the m Initial Piece in Fast Tempo, by nasality and friction (nz). These features are further accompanied by voice (dz nz z mz b'z)(21213131-2, vi; 21213133, iv; 21213134, v), except in the b Initial Piece in Slow-Tempo utterances (p's) (21213134, v).

Alveolarity and coronality characterize the final of the first Syllable of the ts Piece as follows:
g Quality, n Initial (ft) (n)(21213131, vi)
η " , n/z " (((n))(21213131-2, vi)
n " (n)(21213131-2, vi)

The ts Piece is regularly indicated in the orthography by one or other of the letters ts, tsh, dz initially in the second Syllable.

The second-Syllable lexical item of a ts Piece can be classified as ts-Piece. The n-, g-, m-, and b-Initial lexical items listed for the ts-Piece at 21213131, vi (n Piece; e.g. 'dzing, tsho/'tsho, mtsham), 21213132, vi (z Piece; e.g. rtsis, tshwa, rdzi), 21213133, iv (m Piece; e.g. mdzag, mtshar), and 21213134, v (b Piece; e.g. btsan, btsug) are therefore also classifiable as ts-Piece.

vii. n

The second Syllable of the n (Juncture) Piece is characterized initially by nasality + non-labiality (n η n mη ηη; 21213132, vii; 21213134, vi; 21213135, ii). The nasality + non-labiality is additionally accompanied, in the b Initial Piece, by nasality + labiality (mη; 21213134, vi), and in the g Initial Piece, by nasality + velarity (ηη; 21213135, ii), in the appropriate circumstances. These features are always accompanied by voice.
Nasality characterizes the final of the first Syllable of the n Piece as follows:

- g Quality, z Initial (st) (η) (21213132, vii)
- Initial (st) (η) (21213132, vii)
- Initial (st) (η) (21213132, vii)
- Initial (st) (η) (21213132, vii)

In those types of n (Juncture) Piece which are also η or n (Quality), the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (\(\tilde{v}:\)), with, for the η Piece, appropriate vowel qualities.

The n Piece is regularly indicated in the orthography by one or other of the letters ng, ny, n, my initially in the second Syllable.

The second-Syllable lexical item of a n Piece can be classified as n-Piece. The z-, b-, and g-Initial lexical items listed for the n (Juncture) Piece at 21213132, vii (z Piece; e.g. na, nge, smyug), 21213134, vi (b Piece; e.g. smvo, (b)ryan, mnyed), and 21213135, ii (g Piece; e.g. gnyis), are therefore also classifiable as n-Piece.

viii. m

The second Syllable of the m (Juncture) Piece is characterized initially by nasality + labiality (m; 21213132, viii) and by voice.
Nasality characterizes the final of the first Syllable of the m Piece as follows (21213132, vii)

g Quality, z Initial (st) (ŋ) disyll. -Noun Piece only

In those types of m (Juncture) Piece which are also ŋ or n (Quality), the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (əː), with, for the ŋ Piece, appropriate vowel qualities.

In Fast-Tempo utterances the exponent of m for the b Quality Piece is alternatively (labiality + nasality + short duration), which both first-Syllable final and second-Syllable initial could be said to share (21213132 viii, e.g. tʃɪt(m)meː ʊɪbɛ-smed crupper); this combination of features is also the exponent of m in the Fast- and Slow-Tempo utterances alike, in the m Quality Piece, e.g. bamʃː 'bam-sman gout medicine. It is these two exponents that make it necessary to draw a distinction between the m and the n Juncture Pieces.

The m Piece is regularly indicated in the orthography by the letter m, except when qualified by yə-btæɡ (my).

The second-Syllable lexical item of a m Piece can be classified as m-Piece. The z-Initial lexical items listed for the m (Juncture) Piece at 21213132, viii
(z Initial Piece, e.g. ma/mi, mus, dmar, sman, are therefore also classifiable as m-Piece.

ix. 1

The second Syllable of the 1 Piece is characterized initially by laterality (1 b'1), by apico-alveolar friction (r), or by a non-syllabic front spread or back-rounded vowel (j w) (21213132, ix; 21213134, vii), and by voice.

In those types of 1 Piece which are also η or n (Quality) the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (Ṽ;), with, for the η Piece, appropriate vowel qualities.

The 1 Piece is regularly indicated in the orthography by the gsal-byed l and by la-btags (kl, gl, bl, rl, sl), except zl, by r, by y, by dbv, and by w (and, less regularly, by b, in ba).

The second-Syllable lexical item of a 1 Piece can be classified as l-Piece. The z-Initial and b-Initial lexical items listed for 1 at 21213132, ix (z Piece; e.g. red, vin, dbang, wa) and 21213134, vii (b Piece, e.g. gla, bslad/las) are therefore also classifiable as l-Piece.
The second Syllable of the s Piece is characterized initially by glottality (\textdagger) or by dorso-alveolar or corono-alveolar friction (\textdagger p's b's s p's k's g's). The latter features (s f) are invariably accompanied by voicelessness; and voicelessness also accompanies the labial and the velar occlusion that, in appropriate circumstances, characterize the b Initial Piece (p's p's) and the g Initial Piece (k's) respectively, except in Fast-Tempo utterances (b's g's).

In those types of s Piece which are also n (Quality), the nasality characterizing the final of the first Syllable of the Piece is vocalic, and is accompanied by long duration (\textnu:), with, for the n Piece, appropriate vowel qualities.

The s Piece is regularly indicated in the orthography by one or other of the letters s, sh, z, or zh initially in the second Syllable.

The second-Syllable lexical item can be classified as s-Piece. The lexical items listed for s at 21213132, x (z Initial Piece, e.g. shig, song, zhib, zsm) at 21213134, viii (b Initial Piece, e.g. zhi, beshal, zin, bay) at 21213135, iiii (g Initial Piece, e.g. gsum), are therefore also classifiable as s-Piece.
xi. q

The second Syllable of the q Piece is characterized initially by a vocalic (V); but in Words in which (i) this Syllable is also a-Piece or w-Piece (Labialization, 2121321 ) and (ii) the following Syllable is the Nominal-Particle gi/gyi/kyi/i, its initial feature is a labio-velar semi-vowel (w) (21213132, x).

In those types of q Piece which are also n (Quality), the nasality characterizing the final of the first Syllable is vocalic, and is accompanied by long duration (V:); in those which are also g, η, or r (Quality), the first Syllable is characterized by short vowel duration and velar plosion, velar nasality, or apico-alveolar friction respectively (g, η, r).

The q Piece is regularly indicated in the orthography by the letter i initially in the second Syllable, and occasionally also by ʔ.

The second-Syllable lexical item can be classified as q-Piece. The lexical items listed for q at 21213132, x (z Initial Piece, e.g. be/nga/ra, bo/-'o, -'u/gu, 'od, are therefore also classifiable as q-Piece.
The Juncture System and Phonetic Variation in the First Syllable

Just as the Quality system provides a means of accounting for phonetic variation in the lexical items that appear as second Syllable of the disyllabic Quality Piece, by associating them with corresponding differences in the phonetic features of the first Syllable, so the Juncture system accounts for the phonetic variation of first-Syllable lexical items, by associating them with phonetic differences in the second.

In the p, t, k, c, fr, ta, n, m, l, and s types of Juncture Piece a z (Quality) Verb is characterized by one or other of the vocalic features i, e, a, ʌ, o, or ə, provided that that Piece is also an example of the s Quantity Piece (2121312), but in the q Piece the z Verb is characterized, correspondingly, by e, e, a, o, or ə;
e.g.

p: shi-ba si phye-ba tjhe blta-ba ta bzo-ba so-
    baru-ba so-

q: shi-ba fe phye-ba tjhe blta-ba ta bzo-ba so:
    baru-ba so:

(p: 'died', 'opened', 'looked', 'made', 'churned'
q: 'to die', 'to open', 'to look', 'to make', 'to churn')

By means of the Juncture system it is possible to associate with each other, and with the same (z-Piece) Verb, the following pairs of vowels: i/e, a/a, and ə/o.
The g-Piece (Quality) Verb is characterized by variant phonetic features, according to type of Initial Piece, type of Juncture Piece, grammatical type of Piece, and Tempo, as follows:

i. vowel features

<table>
<thead>
<tr>
<th></th>
<th>Juncture</th>
<th>In.</th>
</tr>
</thead>
<tbody>
<tr>
<td>long</td>
<td>+ i/ə/ʌ/ʊ/o/o</td>
<td>k/n/m/l p/t/c/tə/s/q tr/s z/b z Vb. + Part. &quot; disyll.-N.(ft)</td>
</tr>
<tr>
<td>short</td>
<td></td>
<td>p/t/k/c/tr/ts n/m</td>
</tr>
</tbody>
</table>

ii. final-consonant features

<table>
<thead>
<tr>
<th></th>
<th>vel. + occ. + voice (g')</th>
<th>vel. + plos. (g)</th>
<th>vel. + fric. + voice (γ)</th>
<th>vel. + voice (x)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>p/t/c/tr/tə/s q n/m</td>
<td></td>
<td>p/t/o/c s q n/m</td>
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<tr>
<td></td>
<td></td>
<td>p/n/1/s/q</td>
<td></td>
<td>p/n/l/s/q</td>
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<td></td>
<td>p</td>
<td>z Vb. + Part. (st)</td>
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<td>z Vb. + Part. (st)</td>
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<td>z Vb. + Part. (st)</td>
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<td>z Vb. + Part. (st)</td>
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<td></td>
<td>z Vb. + Part. (ft)</td>
<td></td>
<td>z Vb. + Part. (st)</td>
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<td></td>
<td>z Vb. + Part. (ft)</td>
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<td>(st)</td>
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<td>z Vb. + Part. (st)</td>
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<td>z Vb. + Part. (st)</td>
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<td>z Vb. + Part. (st)</td>
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<td></td>
<td>z Vb. + Part. (st)</td>
<td></td>
<td>(st)</td>
</tr>
</tbody>
</table>
vel. + nas. (ŋ)  p/t/k/c/tr/ts  n/m  (st)
lab. + " (m)  p  n  (ft)
dent. + " (n)  t  n/m  ("")
pal. + " (ŋ)  c  "  ("")
alv. + " (n)  tr/ts  "  ("")
k/n/m/l
s
vb. + part.
" di syll.-n.  ("")

For g-Piece forms the vowels associated by the
Juncture system are /i:, a/a:/ʌ:, ʌ/u:, and v/o:/o:/o;
and the final consonants g g' k' y × ŋ m n n are
associated with each other and with final vocalic features.

ŋ-Piece forms, whether Noun, Verb, or Particle, are
categorized by variant phonetic features, according to
type of Juncture, and Tempo, as follows:

i. vowel features
short dur. + 1/ʌ/a/a/ʌ/ʌ  p/t/k/c/tr/ts/q  (ft)
long  "  + 1/ʌ/a/a/ʌ/ʌ + nas. {c/tr/ts n/m/l/s

ii. final-consonant features

velarity (ŋ) | dent. (n) | lab. (m) | pal. (ŋ) | alv. (ŋ)
p/t/k/c/tr/ts/q t (ft) | p (ft) | c (ft) | tr/ts (ft)

none (i.e. vocalic nasality)
n/m/l/s c/tr(ft)
iii. syllabic features

q:  

\( {\text{velarity + syllabicity (ft)}} \) 

p/t/k/c/t\( \text{r} / t\text{s}/q: \)  

\( {\text{+ non-syllabicity}} \) 

The Juncture system provides a means of associating the vowels \( i \) and \( i: \), \( a / \Lambda \) and \( \dot{\alpha} : / \dot{\kappa} : \), \( o \) and \( \ddot{o} : \), and \( o / \odot \) and \( \ddot{5} : / \ddot{5} : \), and the final consonants \( \eta \), \( m \), \( n \), \( n \), and \( n \) with each other and with Syllable-final vocalic nasality. The forms \( na\dot{\eta} \), \( na\eta \), \( na\eta \), and \( n\ddot{\alpha}: \) (\textit{gnang}), for example, can then all be treated as phonetic variants of a single phonological form under differing prosodic (Juncture) conditions, and so can \( ta\eta \), \( tam \), and \( t\ddot{\alpha}: \) (\textit{btang}), and \( th\eta \), \( th\eta \), and \( th\ddot{5}: \) (\textit{mthong}).

\( d \)-Piece forms, both Verb and Particle, are characterized by variant features as follows:

\( p/s: \)  

short vowel duration + \( i/o/e/c \) (Verb-Complement Piece, 21213112)

\( p/t/k/c/n/1/s/a/q: \) long  

\( i/o/e/c/y/s \)

Through the Juncture system the vowels \( i \) and \( e(\cdot) \) (\textit{red}), \( o \) and \( o: \) (\textit{yod}), and \( e \) and \( e: \) (\textit{med/mad}), of Verb-Complement forms and the corresponding Particles (21213112), can be associated with each other.

The variant phonetic features of \( n \)-Piece lexical items are accounted for, in terms of the Juncture system and grammatical type of Piece, as follows:
i. vowel features
    short duration \{p/t/k/c/tr/ts
    \ q Vb. + Part.
    \ s Vb. Comp./Part. + Part.

    long " + nasality \{n/m/l/s
    \ q disyll.-N. only

ii. final-consonant features

    labiality (m) \{p
    \ q (Vb. + Part. Piece)

    dentality (n) t

    alveolariness (n) \{apicality tr
    \ coronality ts

    palataliness (p) c

    velariness (n) k

    none (i.e. V: ) \{n/m/l/s
    \ q (disyll.-Noun Piece)
    \ c (ft)

Here the Juncture system associates the vowels i with i: (and, in the Verb-Complement type of Piece, i), c/i with c/i:, y with j:, and e/y with e/j:, and the final
consonants m, n, η, p, and n with each other and with vocalic nasality.
The phonetic forms \textit{t\textsc{h}um}, \textit{t\textsc{h}in}, and \textit{t\textsc{h}\textsc{h} (ph\textsc{h}in)}, for example, and \textit{th\textsc{e}m}, \textit{thy\textsc{h}}, and \textit{th\textsc{e}m (thon)}, can then be attributed to single phonological forms under different Juncture conditions.

The variability of b-Piece forms is accounted for in terms of the Juncture and Initial systems, grammatical type of Piece, and Tempo, as follows:

1. vowel features
   
   \begin{itemize}
   \item short duration + \textit{\textsc{t}/\textsc{x}/\textsc{o}/\textsc{u}} \quad \textit{p/t/c/n/l/s/a/q}
   \item long \quad + \textit{\textsc{u}/\textsc{o} (ft)} \quad \textit{k (Vb. + Part.)(ft)}
   \end{itemize}

2. final-consonant features
   
   \begin{itemize}
   \item plosion (\textit{b})\textsuperscript{1} \quad \textit{p/q}
   \item occlusion (\textit{b' p'}) \quad \{\textit{t/k/c/tr/ts/l/s}
   \item friction (\textit{\beta}) \quad \textit{k/c/tr/l/q (ft)}
   \item nasality (\textit{m}) \quad \{\textit{n/m Initial}
   \end{itemize}

\textsuperscript{1}This feature is shared with the initial of the second Syllable.

\textsuperscript{2}In Fast-Tempo utterances this feature is shared with the initial of the second Syllable.
none k (Vb. + Par.) (ft)

iii. voicing features of Syllable-final consonants

voice (b b' β m) \{p/t/k/c/n/1/ʈr/ʈs/q

voicelessness (p') \{s

\{t/c/ʈr (st)

The vowels u: and o: can be associated with ω and υ/ω respectively, and Syllable-final b, b', β, and m can be associated with each other, and with certain final vocalic features, under differing Juncture conditions. By this means gjxb, jxb', jxb, jxm, and jxp' (rgyab), for example, can all be associated with a single phonological form, and so can tu:, tɔb', and tɔp' (gtub).

m-Piece Verbs show only the following degree of variation:

labiality (m) \{p/t/k/c/n/m/1/s/ʈr/ʈs/q

velarity (ŋ) k

The Juncture system thus serves to associate sam/sam and sŋ (bsam) with the same Verb.

1This feature is shared with the initial of the second Syllable.
The degree of phonetic variation of r-Piece forms too is not great:

i. vowel features

short duration + \( \text{short duration} + \) + e/c/a\(\sim\)c/u

" " + e/c\(\sim\)c\(\sim\)c/u

long " + i/e/c/y\(\sim\)a\(\sim\)a\(\sim\)u\(\sim\)o

p/q (Vb. + Part.) (ft) n (Initial)

Thus, for the r-Piece Verb 1: 1s associated with \( \sim\), e: with e and \( \sim\), e: with e, y: with y, e: with o, a/:/a:\(\sim\):

with a/\(\sim\) and a, u: with u and o, and o/:o/ with o/o and o;

and Syllable-final r is associated with the appropriate vocalic features; e.g. ju:, yo\(\sim\), and yo\(\sim\) (\(\text{gyur}\)) are variant phonetic forms of the same phonological (Verb) form appropriate to different Juncture conditions.

ii. final-consonant features

apico-alveolarity + friction (r \(\sim\))

p/q (Vb. + Part. (ft) q (disyll. -Noun)

none

p/t/k/c/tr/t\(\sim\)/n/m/ l/s/q

Thus, for the r-Piece Verb 1: is associated with \( \sim\), e: with e and \( \sim\), e: with e, y: with y, e: with o, a/:/a:\(\sim\):

with a/\(\sim\) and a, u: with u and o, and o/:o/ with o/o and o;

and Syllable-final r is associated with the appropriate vocalic features; e.g. ju:, yo\(\sim\), and yo\(\sim\) (\(\text{gyur}\)) are variant phonetic forms of the same phonological (Verb) form appropriate to different Juncture conditions.
212132. Prosodic Systems dealing with Labial and Associated Features

Four prosodic systems of this type are stated: 2121321, Labialization, for the Verb, Verb + Particle, and Particle + Particle Piece (2121321) and for the (monosyllabic) Particle Piece (2121322); 2121322, Fronting; 2121323, Rounding; 2121324, Palatalization.

2121321. Labialization

The Labialization is a three-term system: y, w, ə, whence y Piece, w Piece, and ə Piece. It is set up in order to account for inter-related labial features characterizing at least a whole Syllable, and in some types of Word extending over two or over three Syllables. For example, (i) initial velarity (k g q) in the Verb Syllable can be associated with such labial and other features of the vowel as rounding (u u: o: ɔ ɔ: y y: ø ø:), (backness + spreading) (y ^ ^:), and openness (a a:), e.g. ge-byung (khɔ-) 'I heard', rnga-gi-'dug (ŋ^—he reaps', dga'-yong (ɡa-), 'it is a good thing to', but not with (spreading + frontness) (i i: e: e: c:);¹

¹ In 212132 the 'exotic' symbols i, o, a, u, and ə have been dispensed with in favour of i and I:, u and U:, a: and E:, ɔ, and ə respectively. The vowels symbolized in 212131 by i, u, a, ɔ, and ə are symbolized here by i:, u:, a, ɔ: and ə: respectively.
(ii) lip-rounding can be one of the features of the initial consonant of a Syllable only in Syllables in which lip-rounding is also a vowel feature. e.g.

*mthong-byung* (\textipa{\textit{t}h\textit{h}3:d3\textit{u}}) 'I saw', *ga-duus thon-pa-yin-na* (\textipa{\textit{t}h\textit{h}en-}), 'when did it come out, I wonder;\(^1\)

(iii) the labial features that characterize a Verb Syllable may extend beyond that Syllable to the following Syllable or even to the following two Syllables: features of the the Particle Syllable *gi/gyi/kyi* and the Particle Syllable *vod*, the second and third Syllables of the following three Words, can vary in association with features of the Verb Syllable

\(^1\)The International Phonetic Alphabet's symbols for 'labialization' (\textipa{\textit{w}}) and 'palatalization' (\textipa{\textit{j}}, and \textipa{\textit{?'}} for descenders) are used here to indicate lip-rounding and lip-spreading respectively in association with consonant symbols wherever the appropriate feature is not implied by the consonant symbol itself, as, for example, by \textipa{j} and \textipa{\textit{?'}}.

The only examples in which lip-rounding as an initial consonantal feature is not matched by lip-rounding as a vowel feature, *dbang-gi-'dug* (\textipa{\textit{wa}-}), 'he is powerful', and *dbang-ba-red* (\textipa{\textit{wa}-}), 'he was powerful', are suspected of being literary forms.
(ği, gi, jə; jəː, yoː):

tʃhiːgiːsː: byed-kvi-yod I do
fuʃyəːsː: zhu-gi-yod I serve
tʃəːjəːsː: bcar-gvi-yod I visit

The Piece with which the Labialization system is concerned can therefore be mono-, di-, or tri-syllabic in extent.

The type of Labialization Piece that can extend over a maximum of three Syllables is the Verb - Particle, comprising a Verb Syllable and one, or two, Particle Syllables (21213211); the Labialization system also covers syntagmatically associated features of a single (Particle) Syllable (21213212).

21213211. Verb + Particle

The exponents of the three terms of the system are presented in the following order: y, 21213211; w, 212132112; ø, 212132113. Within each of these three sections the exponents are stated with reference to the Verb Syllable, and to the Particle Syllables of the di- and the tri-syllabic Piece. In the trisyllabic Piece these Particle Syllables are gi/gvi/kvi (second) and yod (third); in the disyllabic Piece they are the second Syllables (post-Verbal) gi/gvi/kvi, pa/ba/ga/nga/ra, byung, yong, yod, and rgyu, and (ii) the first Syllable ma/mi (pre-Verbal, 211142). The monosyllabic Piece
concerns only the Verb Syllable, whether as the only Syllable of a monosyllabic Word (Verb Word) or as a component Syllable of a (polysyllabic) Verb + Particle Word in which the Particles are not those listed above, i.e. Particles that do not vary according to the type of Verb + Particle Labialization Piece in which they are contained.

One of the Particles that vary phonetically according to the type of Labialization Piece in which it is contained is the Particle gi/gyi/kyi. Before stating the exponents of the terms y, w, and e it is necessary to point out that in disyllabic Pieces, this Particle, when it is either Word-final (i.e. in Inter- verbal Junction; 11) or followed by the Interrogative-Particle Syllable pas, is uniformly characterized by (closeness + frontness + spreading) (ji, ji) regardless of whether the preceding Verb Syllable is characterized by spreading or by rounding, e.g. (yP) phebs-gyi-pas (phe:gi-), 'are you coming', (wP) gro-gis (dru:ji), 'I go', (eP) bsam-gvis (sam:ji), 'I think' (2121311131).1

1‘Closeness’ is used for a degree of closure closer than half-close (i i : u u:).
y: ga-re zer-gyi-vod-pa (siği-) what do you say
w: 'thung-gi-'dug-gas (thunği-) does he drink
ə: za-gi-man (səği-) I shall not eat.

(it is significant that all the above examples are taken from recordings in which they were read from a printed text). In all other circumstances gi/gvi/kvi does provide part of the exponency of y, ə, and w.

212133111. y.

The exponents of y are drawn from (1) the Verb Syllable, (2), the Nominalizing-Particle Syllable ba/ba/ ge/nga/ra, but only within the zs Piece (21213122), (3), as second Syllable, with or without the Particle vod as third Syllable, the Particle Syllable gi/gvi/kvi, (4) the Particle Syllables vod, vong, byung, regyu, and myong/nyung, each of which can be the second Syllable of the Piece, (vod can also be the third), (5) the Particle Syllable ma/mi preceding the Verb.

Since there is a relationship between initial consonantal features of the Verb Syllable and its vocalic features, it is necessary to include among the exponents at (1) all its initial features, for comparison with those of the w- and ə-Piece. The y exponents are the following:
1. Verb Syllable

a. one of the following vowel features

i. (spreading + frontness + closeness/half-closeness): \[i i: \text{i}(:) e(:)\]

ii. (" + " + half-openness + shortness: e

iii. (" + " + " + nasality) (o Closure Piece): e:

b. initial lip-spreading: tfh j ph s, etc.;

c. one of the following initial consonant features:

i. (plosion + labiality/dentality/palatality or

prevelarity; cf. w, ø):

\[p \ b \ t \ d \ c / k j \ + / g j ; \]

ii. (affrication + dorsality/apicality/
coronality):

\[t f \ d z \ t r \ d r \ t s ; \]

iii. (nasality + labiality/palatality; c.f. w, ø): m n;

iv. (laterality + voice):

\[l ; \]

v. friction

\[r \ s \ z ; \]

vi. palatal semi-vowel:

\[j ; \]

1' Closeness' is used for a degree of closure closer than

half-close (i i: u u:).

2 The letters tf, d3, f, j, c, n, j, kj, gj serve for both

palatality and lip-spreading when features of the Verb

Syllable.
e.g.
a. i. byed-dus (tʃhi-) sgang-ni
    phebs-nyan (pʰe:-)
ii. ming-la ga-re zer-ra-vi-na
    zhu thub-pa byed-dgos-red
    (tʃhe-) dang

iii. len-shig (je:-)
    mkhyen-song (kje:-)
b. zer-na (gɛ-)
    a-vin (-jɪ:)
c. i. bris (tɕi:) [gnang-pa'i]
    mkhyen-gyi-'dug (chini-) ii. phyin-ni (tʃi:-)
    brijes (dze:) 'gro-gi-'dug-ka

iii. smin-gyi-red (miŋi-)
    sku mnvel-na-song-nga (ŋe:-)
iv. sleb-ni (le:-)
v. shes-pa (ʃem-)
    la red-na (ʁe:-)
    nga-la 'dzing-byung (zi:-)
vi. vin-na'i (jɪ:-)

when I do someone who comes what is it called, I wonder have you got to be able to offer take it they knew supposing that I doubt whether I am of what you have written he knows having gone it goes and changes, does it not it will ripen so you did not get tired, then having arrived knowing mm, yes it is they attacked me however
A y-Piece Verb cannot be characterized by initial
velarity (k g ɳ), (dentality + nasality) (n), glottality (ŋ),
or an initial vocalic (V) (but cf. the w- and the e-Piece,
213132112-3).

2. Nominalizing Particle pa/ba/ga/nga/ra

In y Pieces that are also s (21313122) this Particle
is characterized by:
(spreading and frontness):

E.g.

shi-ba (je:) dying
phye-ba (tʃhe:) opening

3. Verbal Particles gi/gyi/kyi and yod

a. (gi/gyi/kyi, yod) initial spreading:

E.g.

shes-kyi-vod-ma-red (ʃiʃiʃi-)
ga-re zer-gyi-[dug]-na (ʃiɟi-)

b. (gi/gyi/kyi)(frontness + closeness + spreading):

E.g.

brtson-’grus byed-kyi-vod (tʃhiʃiʃi:)
ming-la ga-re zer-gyi-vod-ra (ʃiɟiʃi:–)

I do not think they know
what is it called, mm
I am hard at work on
what is your name
(G. and R.)
4. the Particles yod, yong, byung, rgyu, myong/myung
   initial spreading
   e.g.
   ga-re ga-re bzhes-yong (je:j5)
   what things do they eat
   bsgrig-rgyu (gri:ju)
   to be got ready
   mkhyen-byung-ngas (kje:nqun-)
   did you know

   The phonetic forms -e:-/e:, gi, je:, jon/j5:
   qjung, gi:ju, and qun the y-Piece forms of ba/pa/ga/nga/ra,
   gi/gvi/gyi, yod, yong, byung, rgyu, and myong/myung
   respectively. Verbs that can be exemplified in the
   y-Labialization Piece are classified prosodically as
   y-Piece, e.g. byed, phebs, vin, bris.¹

5. the Particle ma/mi
   non-rounding:
   a/e

   e.g.
   la ma-red (ma:re:)
   no it is not

212132112. w

   The exponents of w are also drawn from (1) the Verb
   Syllable, (2) the Nominalizing-Particle Syllable pa/ba/
   ga/nga/ra in the zs Piece, (2121312), and one or two

¹Since the y-Piece Verbs are regularly indicated in the
orthography by i and e, these letters, in the Verb Syllable,
also serve to indicate the disyllabic and the trisyllabic
y Piece.
exceptional instances of the Verb Syllable (dgo/dgos, yod, 'gro) and the Past-Particle Syllable pa/ba/ka/nga/ ra, (3) the Particle Syllable gi/gyi/kyi as second Syllable, with or without the Particle yod as third Syllable, (4), the Particle Syllables yod, yong, rgyu, byung, and myong/nyung each of which can be the second Syllable of the Piece (yod can also be the third), (5) the Particle Syllable ma/mi, preceding the Verb.

Because of the relationship that there is between initial consonantal features of the Verb Syllable and its vowel features, all the initial features of the w-Piece Verb have been listed, at (1), for comparison with those of the y- and the e-Piece. Of these the following initial features, though shared with the e Piece, do not characterize the y Piece; they can therefore be treated not only as w (and e) exponents but also as non-y criteria: velarity (k g n), (dentality + nasality) (n), vocalic (o c), glottality (?). One feature, Piece-initial (friction + apicality + voicelessness) (r̥), is confined to the w Piece, and could therefore be stated as a w criterion.

The w exponents are:
1. Verb Syllable

a. Rounding, as a vowel feature:  \[ u \, u: \, \ddot{u}: \, o: \, o: \, o: \, o: \, \ddot{\ddot{u}}: \, \dddot{\dddot{u}}: \, y: \, \dddot{\dddot{u}}: \]

b. Initial rounding

\[ \ddot{s} \, \ddot{w} \, \ddot{g} \, w, \, \text{etc}. \]

c. Initial (spreading + palatality) \[ n \, s \, j \, t f \, d z \, k / j \, c \, j \]

d. One of the following sets of features:

i. (Plosion + labiality/dentality/palatality/prenasalization/velocity/velarization): \[ p \, b \, t \, d \, c \, / j \, / j \, j \, k \, g \]

ii. (Affrication + dorsality/apicality/coronality): \[ t f \, d z \, t r \, d r \, t s \]

iii. Initial (nasality + labiality/dentality/palatality/velocity): \[ m \, n \, n \, n \, n \]

iv. (Laterality + voice): \[ l \]

v. Friction:

\[ r \, s \, z \]

vi. Palatal semi-vowel:

\[ j \]

vii. Glottality:

\[ \cdot \]

viii. Initial vowel

\[ o \, o \]

1Where velarity (\( k \, g \, n \)) is one of the Piece-initial features, the lip-rounding is sufficiently prominent to suggest a cluster comprising plosive, or nasal, and labio-velar semi-vowel (\( k w \, g w \, n w \)).

2It is assumed to be fortuitous that no example of (friction + apicality + voice) (\( r \)), otherwise a common initial complex, has been observed in the thesis material.
e.g.

a. geung-du (sun-) sgang-ni

bka'-mol ra-po zhus (fy:) mchog

when we speak
I doubt whether I have
we must have a conversation

b. mthong-byung (th5:dzU)

dgos-vod (gwo:ye)

I saw
I need

bzhugs (ju:) bzhugs-pa-yin-na

used you to live

since the basis of it
was not clear
for being able to speak
a place where there is a shortage too
please print
if he can establish
when I went
or does he have to spread
fry it
if I make a mistake
(G. and R.)
pour it, you

1Since, in Verb Syllables (though not in Particle Syllables), palatality is invariably accompanied by lip-spread1ng, the letters j, tʃ, dʒ, ʃ/gʃ, c/kʃ
adequately symbolize both these features.
v. hrab-pa-red (ro:)

rdzogs-shag (zo:-)

vi. gas yog-ma-red-pa (jo:-)

vii. snag-tsha dbur-gyi-'dug (u:gi-)

viii. a-mchog 'on-gyi-'dug (ngi-)

'lo-na (o-)

2. Nominalizing, and Past, Particles ba/pa/ga/nga/ra

In Pieces that are also zs (131213122) the
Nominalizing Particle ba/pa/ga/nga/ra, is characterized
by:

(rounding + backness): o: o;

These features can also characterize the Past-
Particle Syllable ba/pa/ga/nga/ra, but only when the Verb
is dgo/dgos, 'gro (Auxiliary), or yol (Verb Complement),
e.g.

gdan-'dren zhus [sic; zhu-ba] (jo:) he invited him

bzo-ba (so:) ghang-gi-yin-pa 'dra he will probably produce

yol-pa-yin-pa-no (jo:-) would there be
dgos-yol [sic; dgo-ba-yol] (gwo:yoe) I need

3. Verbal Particles gi/gyi/kyi and yol

(both) rounding gi/yi/kyi (frontness + closeness)

y;
The Particles yod, yong, byung, rgyu, myong/hyung
initial rounding:

- sa-re gsungs-kyi-'dug-ga (sunγγ-)
- mchog-gi-red-pa (tʃho:γγ-)
- dgos-kyi-yod (γwuγγyθ:)
- zhabs-phyi zhu-gi-yod (fuγγye:)

4. The Particles yod, yong, byung, rgyu, myong/hyung
initial rounding:

- tsha-ra snang 'gro'i-yod-pa-no (drolloγγγ-)
- bka'-mol zhu-rgyu (fuγγu)
- 'byor-byung (dzo:dʒu)

5. Negative Particle ma/mi

a. non-palatal-initial Verb (Palatalization, 2121324)
   (rounding + backness + half-openness) ma
b. palatal-initial Verb
   (non-rounding + (frontness + openness/half-openness): ma ma
   (centrality)(ft): me

e.g.
a. ma-dgos (moγγwo:)

---

1 See also p. 537 for the pronunciation ji in a careful style of utterance.
b. 'don-pa'i lugs-srol mi-yong
(mčjäi)

khungs deg-[po] ma-byung-shes
(mad3u:-)

yag-po ma-byung (mad3u)

(for ma/me versus mc see 2121314)

The phonetic forms -o/-o:, gy, yø:, yon/y5:,
g3un/g3i:, g3yu, and gnu/m:] are the w-Piece forms of
ba/pa/ga/nga/ra (Nominalizing, and the Past Particle
ba/pa/ga/nga/ra when the Verb is represented by dgos/dgo,
'gro, or vod), gi/gyi/kyi, vod, yong, byung, rgyu, and
myong/nyung respectively. Verbs that can be
exemplified in the w Labialization Piece are classified
prosodically as w-Piece, e.g. gsung, zhu/zhus, vod, 'gro.¹

212132113. ø

The exponents of ø are also drawn from (1) the
Verb Syllable, (2) the Nominalizing-Particle Syllable
pa/ba/ga/nga/ra in the zs Piece (2121312), (3) as second
Syllable, with or without the Particle vod as third
Syllable, the Particle Syllable gi/gyi/kyi, (4) the

¹ The letters u and o of the Tibetan orthography, in the
Verb Syllable, regularly indicate the mono-, di-, and
tri-syllabic w Piece.
Particle Syllables yod, yong, rgyu, byung, and myong/nyung.

For the same reason as was given in 212132111, all the Piece-initial features of the o Piece have been listed, at (1), for comparison with those of the y and the w Piece. Certain of these o features, those which do not characterize the y Piece, have already been stated in 212132112 as non-y criteria: velarity \((k\theta\eta)\), (dentality + nasality) \((n)\), vowel \((\gamma\^^\lambda)\), glottality \((\eta)\); two further features, labio-velarity \((w)\), and laterality + voicelessness \((1)\), are confined to the o Piece, and therefore serve as o criteria.

1. Verb Syllable

The exponents of o that are drawn from the Verb Syllable differ according to type of Quality Piece \((z, g, \eta, d, n, b, m, r; 2121311)\), to type of Quantity Piece \((s, l; 2121312)\) for z-Piece examples, and to grammatical function \(\)Imperative, non-Imperative\). Three separate statements of exponency have therefore to be made according as the o Verb is exemplified in (a) the zs Piece, the g, \eta, b, m, or r Piece, but excluding all but a very few Imperative types of Piece \(\)Imperative Pieces in which the Verb Syllable is not characterized by rounding, e.g. nā: gnung grant, are included\); (b) the
zl, d, n, or r Piece, again excluding all but a very few Imperative types of Piece (Imperative Pieces in which the Verb Syllable is not characterized by rounding, e.g. ga-le thas-a (the:-) 'gently go' (Bell), are included); (c) all Imperative types of Piece except those few included in (a) and (b), i.e. all Imperative types of Piece in which the Verb Syllable is characterized by rounding (the r Rounding Piece; 2121323).

The types of Piece listed at (a) and (b) are complementary except for the r Piece, which appears in both; but in fact the type of r Piece considered under (a) is not the same as that considered under (b): a further two-term prosodic system, Fronting (2121322), is established for the or Piece, one term of which, the fr (from fronted) is dealt with under (a), and the other, the f, under (b).

a. zs, g, ñ, b, m, rf (mostly non-Imperative)

   1. openness:

   ii. (backness + spreading):

   iii. initial rounding (lahovelarity):

   iv. apart from (iii), initial non-rounding, e.g. g n dʒ

1Possibly a Reading-Style feature.
v. initial (plosion + labiality/dentality/palatality or prevelarity/velarity) pb td c/k j ɡ g

vi. initial (nasality + labiality/dentality/palatality/velarity):

vii. initial labiovelarity

viii. initial glottality:

ix. initial vowel:

x. initial affrication:

xi. initial friction

xii. initial palatal semi-vowel

xiii. initial laterality

e.g.

i. ma rnyams-pa (nam-)
   rgyab (ja:) ma shes-na
   not to deteriorate
   if they do not know how to speak

ii. bod-yig tog-rtse slab (lp)
   phyag-las gnang-mus (nx:-) red
   I taught a little Tibetan
   he is busy working
   he is influential
   one had better
   he reaps the harvest
   if it spreads

iii. dbang-gi-'dug (wangi-)

iv. dga'-yong (ga5)
   btsas-ma rnga-gi-'dug (nagi-)

v. khebs-na (khy3-)
   rkang-pa rkyangs-pa-red (caŋ-)
   he stretched out his foot
vi. btsas-ma rnga-gi-'dug (nāgi-) he reaps the harvest
myang-song (nā:--) he tasted
phyag-las gnang-mus (nā:--) red he is busy working

vii. see (iii)

viii. char-pa dbabs-pa-red (9yb-)
the rain [pattered?]

ix. ['ar-gyi-'dug] (λ:gi-) it is snapping
'tab-kyi-'dug (ybgi-) it barks

x. ga-bar bzhugs-gdan 'dag-gi-'dug-ga (dzj:gi-) where are you staying
ma drag-na (tra:-)

phyag-las gnang tshar-ras (tshar-) if it does not heal
(G. and R.)

xi. rag-byung-ngas (ra:d3un-) did you finish working
bzhag-pa-red (ja:) did you get
za (sa) 'gro-yod he put
I am about to eat

xii. vag-gi-red (jλ:go-)
it will be a good thing to

xiii. var lang-gi-'dug (lāngi-) he is getting up
skra lha-gi-'dug (lāngi-) he plaits

b. zl, d, n rf (mostly non-Imperative)

i. (spreading + frontness + half-openness):

ii. ( " + frontness + half-closeness):

(c Closure Piece only, 212133):
iii. initial spreading, e.g.  

iv. " (plosion + labiality/dentality/palatality or prevelarity, but not velarity): p b t d c / kj j / gj

v. " (nasality + labiality/dentality/palatality but not velarity) m n p

vi. as for (a), (x)-(xiii): tʃ dʒ tr dr ts s j r z l l c

e.g.

i. bstan-rrog (tɛː:-) gnang
  bshad (ʃɛː:) shes-ki-yod-ma-red
  bstan-rgyu (tɛŋɡju) byung

ii. ga-tshod rtse thad-ki-yod-na (tʰeːɡə-)

iii. bsad-ki-yin-'gro (ɡəɡə-)
  mjāl (dʒɛː:) mchog-ga
  dmag rgyal-ba-red (ʃɛːr-)
  ga-bar thad-ka (tʰeː-)

v. gnam-gyi-'dug (nɛŋɡi-)
  btsas-ma rnas-pa-red (ɲɛː-)
  nga bod-pa min (mcː-)

vi. sprad-ki-yin (tɾɛːɡə-)
  mjāl-ba-red (dʒɛːr-)
  byas-bzhin (ʃɛː-)

please show
I do not think they know how to speak
it was to be shown
how long is it since -- --
he will probably stay (Bell)
I must meet you
he won the war
where are you going
he presses: --
he reaped the harvest
I am not a Tibetan
I will give
he met
then
ral-shag \( (\text{rc:-}) \)

bsad-song \( (\text{sc:-}) \)

lus-nas \( (\text{lc:-}) \) mi-'dug

lhas-pa-red \( (\text{lc:-}) \)

It is torn

He killed it

--- has been left behind (G. and R.)

He plaited

Of the initial features given at (a) the following cannot combine with the vowels \( \epsilon, \epsilon:, \epsilon:, \epsilon:: \):

i. velarity:

\[ k, g, q \]

ii. glottality:

\[ r \]

iii. vowel:

\[ a, a:, \alpha:, \epsilon \]

iv. labiovelarity

\[ w \]

c. \( z, g, q, d, n, (b), m, r \) (Imperative only)

The majority of \( \epsilon \) Verbs, regardless of Quality classification (except that there is only one b-Piece example), have rounding as a feature of their Imperative-Clause forms. In order to deal with this alternation of feature, rounding in most \( \epsilon \)-Verb Imperatives but non-rounding in all \( \epsilon \)-Verb non-Imperatives, a further prosodic system is established, the two-term Rounding system \( (r, \bar{r}; \ 2121333) \). In sections (a) and (b) above the \( \epsilon \) exponential features have been drawn from

\[ 1 \] Except the suspect form dbang, with initial labiovelarity \( (w) \) (p. 550, n. 1).
\( \bar{r} \) forms; in (c) they are drawn from \( r \) forms

(Imperative): 1

i. (rounding + backness + half-openness/openness):

\( \text{\textit{di: t}}} \): 5:

ii. (rounding + frontness + half-closeness):

\( \text{\textit{e: z}}} \):

iii. initial rounding, e.g.

\( \text{\textit{s d ŋ}}} \):

iv. " (spreading + palatality), e.g.

\( \text{\textit{j c ŋ}}} \):

v. " (plosion + labiality/dentality/palatality or prevelarity/velarity):

\( \text{\textit{p b t d c/kj}}} \):

\( \text{\textit{f/g}} \):

vi. " (nasality + palatality/velarity):

\( \text{\textit{n ŋ}}} \):

vii. as for (a), (x)-(xiii):

\( \text{\textit{tʒ dʒ tr ts s j z j l}}} \:

E.g.

i. 'bras 'di zo (\textit{so:})

'\textit{di thag-pae sdoms (\textit{dom})}

ii. mig vag-po ltos (\textit{tə:})

\( \text{\textit{nyon-shig (nə:-}}} \):

iii. lcags-thab-la me thong (\textit{tʒ:})

\( \text{\textit{mi 'di-la sgo-nga gsum sprod (tə:}} \):

'eat this rice'

'Tie this with string'

'have a good look'

'make sure you listen'

'light the stove'

(G. and R.)

'give this man three eggs' (G. and R.)

1It is unfortunate that 'r' should have to be used for a term of the Rounding system, as opposed to \( \bar{r} \), as well as for a term of the Quality system, as opposed to z, g, n, d, n, b, and m; but where it is not clear from the context which 'r' is intended, the system will be specified.
iv. kha skvol (ce:)
  nyon (nә:)
v. dgod (ққө:)
  'dir sguq sdog (дә:)
vi. rngos-shig (ңә:-)
  nyoq-shig (ңә:-)
vii. chogs-shig (тә:-)
  krol-shig (tә:-)
  tshogs-shig (tsә:-)
  sog-shig (sә:-)
  shod-shig (жә:-)
  'dzegs-shig (нә:-)
  gyor-shig (jә:-)
  longs-shig (lә:-)

'kiss it'
'listen'
'laugh'
'wait here'
'reap it'
'lie down'
'split it'
'explain it'
'filter it'
'heap it up'
'explain it'
'climb it'
'borrow it'
'lift it up'

2. Nominalizing Particle ba/pa/ga/nga/ra (zs Piece)
   (openness + backness):
   a:
   e.g.
   mig lta-ba (ta:)
   'looking at'

3. Verbal Particles gi/gyi/kyi and yod
   a. gi/gyi/kyi
   i. non-rounding:

¹The initial nasality is a Reading-Style feature.
ii. (n Initial Piece, 21213131) (frontness + spreading + closeness): 

(z " " , 21213132) (centrality + spreading + half-closeness): 

b. yod

initial spreading:

e.g.

phyag-las gnang-gi-'dug (n\u02c8ngi-)

homs rang-la bzhus-gdan

jag-gi-'dug-ka (d\u00e2\u02d0:gi-)

gta-tshad thad-kyi-yod-na

(the:goj\u0e0c:-)

phyag-las su'i tsa-la gnang-gi-yod-na

(n\u02c8ngoej\u0e0c:-)

bcar-gyi-yan (ts\u00e2:ge-)

'I will call on'

4. the Particles yod, yong, byung, rgyu, myong/nyung

initial spreading:

j gj gj n

e.g.

bstan-rgyu (t\u00e2ngju)

'\u0258a'i chibs-bag-yur gnang-byung-ngas

(n\u02c8:d\u00e9\u02d0:\u02c8un-)

'\u0258a'i-sgra yag-po rgyab-yod-pas

(gjxbje-)

'have you fastened the saddle well'

The phonetic forms -a:, ge/gi, jo(:), jo\u02c8/j\u02c8,

\u00e0\u02d0un/\u00e0\u02d0, gj\u00e9, and pu\u02c8/pü: are the e-Piece forms of

ba/pa/ga/nga/ra (Nominalizing), gi/gyi/kvi, yod, yong,

byung, rgyu, and myong/nyung respectively, all of which
are shared with the y Piece except a: and ge.\(^1\) Verbs that can be exemplified in the a Piece are classified prosodically as a-Piece, e.g. rnyams, rnga/rngas/rngos, lang/longs.\(^2\)

There are two Verbs that cannot be classified as exclusively y or a; for each has both y and a forms: (i), byed/byas, 'do'; (ii), zer/ser/se, 'say'; e.g.

\[
\begin{align*}
\text{y} & \{ \text{byed-kyi-'}dug \ (t\text{h}i\text{g}i-) \quad \text{'}he does';} \\
\text{a} & \{ \text{byas-'}dug \ (t\text{h}e:-) \quad \text{'}it has been done'}
\end{align*}
\]

\[
\begin{align*}
\text{y} & \{ \text{zer-gyi-'}dug \ (s\text{g}i-) \quad \text{'}they say'} \\
\text{a} & \{ \text{ga-re zer-ra-yin-na} \ (s\text{e}r-) \quad \text{'}what is it called, I wonder'}
\end{align*}
\]

\[
\begin{align*}
\text{a} & \{ \text{de-pag phar tshur chu-spre ze} \ (s\text{a}) \quad \text{'}all over these parts they say 'chuti'}
\end{align*}
\]

Since these two Verbs are exemplified in both y and a Piece, they are classified as y/a Verbs.

One of the purposes that the Labiality system serves is that of making it possible to associate the z examples

\(^1\) A very few examples of ge have been observed in the y Piece.

\(^2\) The a Piece, and a-Piece Verbs, are regularly symbolized in Tibetan orthography by a in the Verb Syllable, except for the majority of Imperative forms (r-Piece forms), in which o is used.
Rngas-pa-red (ŋɛ:-), 'he reaped', in such a way that the velarity (ŋ) of the former two examples, one of which is sP (Quantity, 2121312), and the other rP (Rounding, 2121323), together with the palatality (ŋ) of the latter, which is 1P (2121312), can both be regarded as exponents of the same C term (2) under different and complementary prosodic conditions (əzs, əzr, əzl). In ə Pieces such as ŋāgi- and ŋa velar nasality precedes ə and a (212132113, 1, a, i–ii, vi), in a (1)r Piece such as ŋə: velar nasality precedes ə: (l, c, i–ii, vi); but in a lR Piece such as ŋɛ:- the vowel can be preceded by (nasality + dentality or palatality) (ŋ ŋ) but not (nasality + velarity) (ŋ).¹ ə in the le Piece, in association with ɛ:, which cannot be preceded by velarity, alternates with ə in the se Piece, in association with a/ə, and in the r Piece, in association with ə:; thus the feature dorsality is common to əl, əs, and ər Pieces, but the localization alternates between the hard palate, for the le Piece, and the soft palate for the əs and the ər e.g.

¹For some LT-speakers, including P, velar nasality can be initial in a ə Piece in which the vowel is ɛ: (əd, əɛ, əzl) e.g. rngas-pa-red (ŋɛ:-); cf. also the Noun + Particle Word ɛ:lə (sngon-la) (R. ɳɛ:lə), ɳɛ: (ṅa'i) (R. ɳɛ:).
btsas-ma rnga-shig (ŋa-)\(^1\) reap the harvest

rnga-gi-'dug (ŋa-) he is reaping the harvest

rngos-shig (ŋø:-) reap the harvest

rngas-pa-red (ŋɛ:-) he reaped the harvest

The features (rounding + backness + half-openness/openness) (\(\ddot{o} \ddot{o}: 5:\)) and (rounding + frontness + half-closeness (\(\ddot{e}: \ddot{e}:\)) that have been stated as part of the exponency of \(ə\), and that apply only to the Imperative-Clause \(ə\) Piece (1, c, i-ii), overlap certain of the features stated for \(w\) (rounding + frontness/backness + closeness/half-closeness/half-openness (\(a, i; u u: ū:\ddot{o}: \ddot{o}: 5:\ddot{e}: \ddot{e}: \ddot{e}: y y: ū:\)), which apply to both Imperative and non-Imperative Clauses. These overlapping features (\(\ddot{o} \ddot{o}: 5:\ddot{e}: \ddot{e}:\)) cannot therefore serve as criteria of either \(w\) or \(ə\) as far as concerns Imperative forms; indeed they can be identified, as \(ə\) exponents (1, c, i-ii) or as \(w\) exponents (\(a, i\)), only through a knowledge of the formal scatter of the Verb concerned.

A knowledge of Tibetan grammar, at least to the extent of identifying Imperative and non-Imperative forms, is therefore essential to the phonological analysis

\(^1\)Also rngos-shig (ŋø:-).
at this point. The alternation of rounding with non-rounding, or rounding in Imperative forms with non-rounding in non-Imperative forms (a majority of Verbs have rounding as a feature of their Imperative Forms), is exclusive to ø Verbs: rounding of vowel is not a y feature; and non-rounding is not a w feature. øP Imperative forms are here phonologically distinguished from wP Imperative forms is spite of the fact that the vowels ø, ø:, ø:, ø: are common to both; to this end, a further prosodic system, the two-term Rounding system (2121323), is required to deal with rounding and non-rounding of vowel as features of øP Verb Syllables; no such system is needed for wP Verb Syllables, all of which have rounding as a vowel feature in Imperative and non-Imperative forms alike.

Thus, Pieces that are phonetically identical as regards labial features of the initial consonant and the vowel of the Verb Syllable may well be analysed as different phonologically, either as w or as ør. This prosodic difference leads to a phonematic difference: the ø Verb has no V system; the w Verb Syllable has no V system either for those w Verbs which are also z, g, η, d, n, b, or m (Quality system), but two-term V systems for those which are also r: U and Y for those Verbs which are classified in terms of the Closure system
(212133) as c and O and ⊥ for o Verbs. On the one hand, therefore, the appropriate features of the vowels c, c:, ø, and ø: can be part of the exponency of purely prosodic terms, of ø and r (Rounding), and on the other, part of the exponency of the prosodic term w, and exponents of the V terms o (c c:) and ø (ø ø:) of a two-term phonematic system.

The fact that there can be V phonematic systems set up for one type of w-Piece Verb Syllable as against the impossibility of setting up a phonematic system for the eP Verb is in itself a reason for refusing to identify the eP Imperative forms that have a rounded vowel (dø: sdod 'stay', kha skyol (kjo:) kiss, tjo: gcor visit; jo: bzhav shave cf. the lexically corresponding forms with non-rounded vowel dø: bsdad, kjœ: bskyal, tja: bcar, ja: bzhav) from such wP-Verb Imperative forms as kø: skol boil, trø: khrol unloose, ko: skor go round (cf. the lexically corresponding non-Imperative forms kø: skol, trø: khrol, ko: skor. These wP forms are also examples of the V terms ø (skol, dkrol) and o (skor). The eP forms with rounded vowel, on the other hand, are not examples of o or ø.

Thus, by means of the Rounding system the eP Imperative forms sdod (dø:) and thong (tø:) are taken
to be of the same Labialization type (ə) as the non-Imperative forms ḅadad (da:) and btang (tə:), and are dissociated from wP Verbs such as tjhe: mchod and tsh5:/ts5: 'tshong. Except for (spreading + half-openness + frontness + long duration + non-nasality) (e:), the ə features at (l, b, i-ii) overlap some of the y features included in (a. i), and all the features at (a, ii-iii): e:, e, ə:, e.g.

\[
\begin{align*}
&\{\text{ster-ba-red (te:-)} & \text{he gave} \\
&\{\text{ster-gyi-i'dug (te:gi-)} & \text{he gives} \\
&\{\text{ga-tshed thad-kvi-yod-na (thexe-)} & \text{how long is it since -- --} \\
&\{\text{phye-ba-red (tjhe-)} & \text{he opened} \\
&\{\text{len-pa-red (tcm-)} & \text{he took} \\
&\{\text{ster-ba-red (tcr-)} & \text{he gave} \\
&\{\text{bstan-pa-red (tcm-)} & \text{he showed} \\
&\{\text{bstan-gyi-red (tcm-)} & \text{he will show} \\
&\{\text{mjal-ba-red (dcm-)} & \text{he met} \\
&\{\text{y dbugs ring-po 'then (theq:)} & \text{draw a long breath (G. and R.)} \\
&\{\text{bstan-mo bstan (tē:)} & \text{put on the show} \\
\end{align*}
\]

One of the differences between the y and the ə examples above is that in the ə examples, but not in the y, the vowels, e:, e, and ə: may be preceded by a dental.

1 Also ston (tē:).
nasal (n), and have therefore a quite different implication from these same vowels in the y Piece. There is the further difference in the case of the examples in e:, that the y examples can also be examples of either the c (Close) or the o (Open) Closure Piece (Closure, 213133; c: ster-gyi-'dug te:gi-; o: ster-ba-red te:be-), while the e example can only be also an example of the c Piece; thus, the vowel e: of the e example (c Piece) alternates with e: (of the o Piece); but the vowel e: of the y examples does not alternate in this way; e.g.

\[
\begin{align*}
\text{y e: (c)} & \quad \{\text{c: ster-gyi-'dug (te:gi-)} & \quad \text{he gives} \\
& \quad \{\text{o: ster-ba-red (te:be-/te:re-, ft)} & \quad \text{he gave} \\
\text{e e:/c: (c)} & \quad \{\text{c: mjal-gyi-'dug (d3e:gi-)} & \quad \text{he meets} \\
& \quad \{\text{o: mjal-ba-red (d3e:be-/d3e:re-, ft)} & \quad \text{he met} \\
\text{y e:} & \quad \{\text{c: phebs-kyi-'dug (phe:gi-)} & \quad \text{he comes} \\
& \quad \{\text{o: phebs-pa-red (phe:be-)} & \quad \text{he came} \\
\text{e e:/c:} & \quad \{\text{c: thad-kyi-'dug (the:gi-)} & \quad \text{he goes} \\
& \quad \{\text{o: thad-pa-red (the:be-)} & \quad \text{he went} \\
\end{align*}
\]

The vowel e appears in the rP examples in the immediately preceding paragraphs (ster, mjal) as a Fast-Tempo alternative to e: in the y Piece (te:be-, te:re-), and as a Fast-Tempo alternative to e: in the e Piece (d3e:be-, d3e:re-). The vowel e in those rP
examples (bstan, len) which are also e-Piece is appropriate to either c Piece or o Piece alike (c: bstan-gvi-red, tængə-; o: bstan-pa-red, tæmbe-); but e in the y examples, of both nP (len) and zP (phye), is appropriate only to the o Piece, except in what is believed to be an artificially careful style, and alternates with the c-Piece vowel i; e.g.

\[
\begin{align*}
\text{c: } & \text{phye-gi-}'\text{dug} \ (tʃhɪgi-) \ '\text{he opens}' \\
\text{o: } & \text{phye-ba-red} \ (tʃhɛbə-) \ '\text{he opened}' \\
\text{y i/ɛ} & \\
\text{c: } & \text{len-gvi-red} \ (lɪŋə-) \ '\text{he will take}' \\
\text{o: } & \text{len-pa-red} \ (lɛmbe-) \ '\text{he took}' \\
\text{e ɛ} & \\
\text{c: } & \text{bstan-gvi-red} \ (tængə-) \ '\text{he will show}' \\
\text{o: } & \text{bstan-pa-red} \ (tæmbe-) \ '\text{he showed}'.
\end{align*}
\]

Further, the vowels e: and ɛ of the e-Piece Verb commonly alternate with the vowels ө: and ʊ:, the latter two vowels being appropriate to Imperative forms, and the former two to non-Imperative forms; but for the vowels e: and ɛ of the y Piece there is no such alternation, e.g.

\[
\begin{align*}
\text{y e:} & \\
\text{non-Imp. } & \text{phebs-kvi-}'\text{dug} \ (phe:-) \ '\text{he comes}' \\
\text{Imp. } & \text{phebs} \ (phe:) \ '\text{come}' \\
\text{e ɛ:/ʊ:} & \\
\text{non-Imp. } & \text{badad-kvi-yin} \ (de:-) \ '\text{I shall stay}' \\
\text{Imp. } & \text{adod} \ (dʊ:) \ '\text{stay}'
\end{align*}
\]
In order to deal with the alternation of rounding with non-rounding as features of the ə Piece it is necessary to set up the further prosodic system Rounding (2132323); no such system is needed for the y Piece.

Classifying a Verb as yP rather than as wP or əP foreshadows differences in phonematic statement; for yP Verb Syllables are disqualified from being characterized by e.g. initial dental nasality (n); and any C system set up for yP Verb Syllables must, as a result, differ from the C systems set up for the wP and əP Verb Syllables: in these last provision must be made for a phonematic unit with (dentality + nasality) (n) as an
exponent, e.g. (eP), *gnan-pa-red (nem-), 'he pressed',
*gnang-ba-red (nag-), 'he gave'; (wP), *snom-song
(num-), 'he smelt'. Thus, classifying e.g. ster as a
yP Verb renders it prosodically non-comparable with n-initial
Verbs. Although both yP and eP Verb Syllables can be
characterized by (frontness + spreading + half-closeness)
(ε:), e.g. (yP), *ster-gyi-yin (te:ge-), 'I shall give';
(eP), *bsdad-kyi-yin (de:ge-), 'I shall stay', it is only
the eP that can alternatively be characterized by
(frontness + spreading + half-openness) (ε:), e.g.
bsdad-pa-yin (de:be-), 'I stayed', and is therefore
prosodically comparable with *gnan-gyi-yin (neng-e-), 'I
shall press', *gnas-kyi-yin (neg-e-), 'I shall dwell', and
*gnas-pa-yin (neg-e-), 'I dwelt'.¹

The purpose of the Labialization system is also to
deal with syntagmatically related consonantal and vocalic
features of Particle Syllables. For example, where
rounding is a feature of the initial consonant, it must

¹These last two examples, though attested in the thesis
material, probably have no better claim to be accepted as
contemporary LT than 'dwell' has of being accepted as
contemporary spoken English (cf. LT bzhugs, bsdad, 'live',
'live at', 'stay').
also be a feature of the vowel (this is not true of the converse); where lip-spreading is a feature of the vowel, non-rounding is a feature of the initial consonant (here, again, the converse is not true); and where a neutrally open lip position is a feature of the vowel, non-rounding is a feature of the consonant.

The above features have something in common with features stated as exponents of the terms y, w, and ø for the Verb and for the Verb + Particle Piece (21213211), though the latter applies to di- and tri-syllabic Verb + Particle Pieces as well as to monosyllabic (Verb) Pieces, and therefore also accounts for some of the features of certain of the Particle Syllables considered here (na/ba/ra/nga/ra, byung, rgyu, rong, yod, mvyong/nyung).

The exponents of the three terms y, w, and ø in the monosyllabic-Particle Piece are (when stated within the framework of the Quality Piece):

y

i. (spreading + frontness +
  closeness/half-closeness): e: e i i: i:

  half-openness + shortness):

ii. spreading as a consonant feature, e.g.
iii. \((gi/zvi/kvi\) in the \(o\) Vb. + Part. Piece)

  centrality: \(ge\)

iv. \((gi/zvi/kvi\) in the \(w\) Vb. + Part. Piece)

  rounding: \(gy\)

w

i. rounding, as a vowel feature:

\[
\{\begin{align*}
\varepsilon & : y : \ddot{o} : \ddot{j}(:) \\
u & : \ddot{u}(:) \ddot{o} : \\
\ddr & d \ddot{g}w \ddot{g}y \ddot{h} \ddot{n} \\
m & \ddot{l} s \ddot{\ddot{n}} \ddot{d} \ddot{z} \ddot{r} \ddot{d} \\
\ddot{i} & \ddot{i} \ddot{j} \ddot{i} \ddot{g} \ddot{\ddot{z}} \\
\end{align*}\}
\]

ii. rounding, as an initial-consonant feature:

\[
\{\begin{align*}
\ddr & d \ddot{g}w \ddot{g}y \ddot{h} \ddot{n} \\
m & \ddot{l} s \ddot{\ddot{n}} \ddot{d} \ddot{z} \ddot{r} \ddot{d} \\
\ddot{i} & \ddot{i} \ddot{j} \ddot{i} \ddot{g} \ddot{\ddot{z}} \\
\end{align*}\}
\]

iii. (spreading + palatality), as an initial-consonant feature: \(g\ddot{i} \ddot{i} \ddot{j} \ddot{i} \ddot{g} \ddot{\ddot{z}}

\(e\)

i. (frontness +

  half-openness

  half-closeness\(^1\) + long duration):

  half-openness + nasality):

  openness):

ii. (backness + non-rounding):

iii. centrality:

iv. non-rounding, as an initial-consonant feature, e.g. \(m \ddot{t} g\), etc.

\(^1\)Only in the \(c\) Closure Piece (213133).
e.g.

y:  1. 'grig-gi-red (-je:)
    bzo-rtsis (-dgi:) ra-po-yod

ii. ka-lon sbug-la yong-nas (-ye)
    par-khang yod-pas-se (-s)

iii. see 21213113, 3, a, ii

iv. see 21213112, 3

w:  1. bzhugs-gdan 'dag-mus (-my:)
    mang-po bsdad-long (-lh:)

ii. zhu-rog (-po:) gnang
    las-ka byed-dgos-yod (-gwo-)

iii. ga-tshad thad-kyi-yod-na
    bsgrigs-pa gnang-rgyu (-gju)

s:  1. rgyal-rtse-la phebs-pas (-be:)
    phyag-las gnang-nyan (-ne:)

ii. 'di byed-thabs (-gxp) yod-ba-
    ma-red
    chang 'di vag-pa a-vin-na (-x-)
    btang-yag (-ja:)

iii. 'byor-mad-pa-no (-be-)
    klog thub-pa (-bo) byas

that will be all right
I am sort of about to
make
having come to Kalimpong
have you a printing
works
staying
we cannot halt for
long (G. and R.)
anything further to
be said
I have to work
how long is it since
how to set
did you come to Gyantse
someone who works
there is no help for
it (Bell)
I doubt whether this
beer is all right
for sending
have you not received
having made it possible
for them to read
iv. khang-pa 'di skyid-po 'dug-gas (-ge:)

gas vog-ma-red (-ma-) dang (tä:) are there not any

In spite of a general similarity of the exponents of the terms y, w, and ə of the Particle Labialization Piece to those of these terms in the Verb, or the Verb +

there

Particle, Labialization Piece (21213211), are considerable differences of detail. Thus, dental nasality (n) and velar nasality/plosion (q ɲ) cannot be initial in a y-Piece Verb, preceding i, i:, ñ:, e:, or e, but can be initial in a y-Piece Particle e.g. nas/ni (nɛ/ni), gi/gvi/kvi (g1), preceding e or i; and centrality (ə) and syllabicity (s n ɲ/y/ڼ), which are features of the ə and the y Labialization Piece respectively in Particle Syllables, do not characterize the Verb Syllable at all.

The z-Piece Particle Syllables gi/gvi/kvi (g1/ɡə/ɡə/ɡə/ɡə) and ma/mi (ma/mi/ma/ma) are both characterized by differing labial features in accordance with differences in Junction (212132, 2121311311), and in type of Initial Piece (21313131, ii) and Labialization Piece (21213211/2/3, 3). This relatively high degree of diversity as compared with other z-Piece Particles e.g. shig, nas/ni, a, ba/pa/ga/ nga/ra (Past) is due to their being included in a wider variety of prosodic types of Piece.
gi/gyi/kyi, ma/mi, and every Verbal and Nominalizing Particle can be given a prosodic classification in terms of the Labialization system, as being y-Piece, w-Piece, or a-Piece.

y: shig, bzhin, rtsis, min/man, yin, ze/se, red, de'i/da'i/te/da's, byas, nas/ni.

w: dug (Verbal, Nominalizing), mus, rgyu, 'dug, byung, nyung/myong, dgos/dgo/go, do, gro/gro, no, long, dwogs/dog/rdog, yod, vong, song, rog;

a: shag, kag/ka/ga (Final), tsang, yang, dang (Interrogative, Imperative), bstang, vag, thabe; ma/mi, ka/ga (Future Interrogative), 'dra, a (Imperative Dubitative), min/man, med/mad, pas/gas/ngas/res, ba/pa/ga/nga/re (Nominalizing), pa/ga/nga (Interrogative, Exclamatory), nyan/mkhan sa, na, ta.

The w Piece is represented in Tibetan orthography, as far as Particles are concerned, by the letters y and ø, the y Piece by i, e, e'i, a'i, and by a immediately followed by ø or n, (nas/ni, byas), and the a by a (but by i for ma/mi in the n Initial Piece, e.g. mi-'dug).

2121322. Fronting (f f)

The analysis of certain Verb Words and Verb + Particle Words in terms of the eight-term Quality system (21213111) and the Labialization system (2121321) results in the
classification of certain Verbs, e.g. skyl/skyle/skyl, 'convey', bgad/dgod, 'laugh', bcar/gcor, 'visit', as both (Quality) and (Labialization):

1. lan skyle-gyi-'dug (kje:-) He is conveying a reply
   " bsycle-ba-red (kje:/kjer-) he conveyed a reply
   " skyl (kje:) (also kje:) convey a reply
   bgad-mo bgad-pa-red (gje:-/gjcr-) he laughed
dgod (gэ:) laugh

ii. bcar-gyi-yim (tja:-) I will visit
    bcar-ba-yim (tja:/tjar-) I visited
    gcor (tjo:) visit him.

It might at first appear that the frontness-backness difference between the vowels of the sr-Verb examples in (i) above and those of the sr-Verb examples in (ii) could be treated phonematically, by setting up a two-term V system, with frontness (э:/э:/э:) as an exponent of one term (section 1) and backness (a: a: a:), or (frontness + openness) (a), as an exponent of the other; but a syntagmatic association of features has also to be taken into account whereby those sr-Verb Syllables which have (frontness + spreading) (э:/э:/э) as features are disqualified from having initial velarity (k9) as a feature (э exponents l, b, iv-v), though they can have
initial prevelarity/palatality (kj gj p) as a feature, e.g. kje:-, kjer-, kje:- in (i) above, while the remaining or-Verb Syllables, which have as features openness (a a:), backness (Λ: ι:), or (frontness + rounding) (φ:), are not disqualified, (e exponents l, a and c, v-vi), e.g. dkar-gyi-'dug (kΛ:-), 'it is white', dkar-be-red (ka:-/kar-), 'it was white', dgod (gφ:), 'laugh'. Since the difference between the two types of example concerns not only the vowel but the initial consonant as well, a prosodic statement (the Fronting system), distinguishing the one type of Syllable from the other, is appropriate.

The Fronting system comprises the two terms f (front) and f (non-front), and applies to monosyllabic Piece, the or-Verb Syllable. The exponents of these terms are:

f: a. (frontness + spreading):
   b. ( " + rounding) (Imperative only):
   c. where the vowel is one of those given at (a) (e: ε: €), i.e. in the f Piece (Rounding, 2131323),

i. initial (plosion + dentality/palatality or prevelarity):
   t c/kj j/gj

ii. initial (nasality + palatality):
   p

1 No examples of labiality (p b m) have been observed in the material.
d. where the vowel is that given at (b), (€:),
i.e. in the r Piece (Rounding, 2121333),
i. initial (plosion + palatality (or prevelarity)/
velarity):
ii. initial (nasality + palatality):

f: a. (frontness + openness):

b. (backness +
   i. non-rounding)
   a:
   ii. rounding) (Imperative only):
   a:

c. initial (plosion + labiality/dentality/
   velarity):

d. initial (nasality + labiality/palatality):

3eg.

f: a. sku-phyag gsum 'tshal-ra (ba)
   (tsh€r-) gnang-nas
   he must make three
   obeisances (Bell);
   kha bskyal-gyi-'dug (ce:-)
   he is kissing
   bgad-mo bgad-pa-red (gje:-)
   he laughed;
   b. mial-shig (d3€:-)
   meet him
   c. i. thugs dal-ba'i (tsh€r-) sgang-la
   when you have
   leisure (G. and R.)
   dmar rgyal-ba-red (je-r-)
   he won the war

1 There are, as it happens, no examples of dentality (t).

2 No examples of palatality (or prevelarity) (c k j g j)
   have been observed in the thesis material.

3 No examples of dentality (n) or velarity (€) have been
   observed in the thesis material.
ii. gnyid nyal-ba-red (nɛ:-)
he slept

d. i. dgod (ɡƏ):
laugh

    kha skyol (cə:)
kiss it

    ii. snyol (nə:)
lay it down

F: a. skyon tsha-ra-yin-na (tshar-)
has he finished

    dngul gyar-ba-yin (ja:-)
I borrowed money

b. i. sang-nyin bcar-gyi-yin (tʃə:-)
I will call

tomorrow

    ii. gcor (tʃə:)
call on him

    c. dkar-ba-red (ka:-)
it was white

        tog-tsa spar-rog (pa:-) gnang
please give me a

        d. dmar-gyi'-dug (mA:-)
little more than

        nyar-ba (nər-) gnang-ba
that (Bell)

Not all the initial consonantal features of the f and of
it is reddish
the F Piece appear among the exponents given above; for

to take care of
such features as affrication (ts tr dʒ tʃ), friction (s j),
(Bell).
and (semi-vowel + palatality) (j), enjoy no special

The vowel-initial example 'ar-gyi-'dug (ʌ:-), 'it
relationship, such as that of velarity, with the vocalic
snaps', if it is indeed a valid example of the r Quality
features of the ar-Verb Syllable.

Piece (the available examples are consistent with either
the r or the g), would also be a source of a F exponent
(and criterion); for in the f Piece a vowel cannot be initial.

Verbs that are exemplified exclusively in the f or the f Piece are termed respectively f Verbs (arf) and f Verbs (arf). 1

2121323. Rounding (r, r) 2

An alternation of lip-rounding with non-rounding as both vowel and consonant features has already been referred to as characteristic of the a Piece as opposed to the y or the w (p. 554). This alternation applies to æz, æg, æn, æd, æn, æm, and ær Verbs (both arf and arf), but hardly to the æb, which provides only one example of

1 f is regularly represented in Tibetan orthography by -I, and f by -r, e.g. (i), f: 'tshal, bskyal/ksyol, snyol, with bgad/dgod, in -d, as an exception; (ii) f: gcivar/gcevor, bcar/gcor.

2 The r of the Rounding system (r, ʃ) is unlikely to be confused with the r of the Quality system (z, g, η, d, n, b, m, r; 21213111): where the context does not adequately indicate which of the two is being referred to, the system of which it is a term can easily be named. In formulae the Quality-system symbols follow all others (except, for r Verbs, those of the Fronting system, (f, ʃ)).
this alternation, the non-rounded vowel \( y \), e.g. 
\( \text{btab-kyi-'dug (tyb-), 'he sows' (Bell), alternating} \) with the rounded vowel \( o \) of \( \text{thob (thob), 'sow'} \) (Imperative), for which R. was also willing to accept the non-rounded form \( \text{thop}. \)

The Rounding system is needed to account for the Imperative forms of the majority of \( a \) Verbs, which are characterized by rounding. It comprises the two terms \( r \) and \( \bar{r} \), and is applicable to monosyllabic Pieces comprising only the Verb Syllable. The exponents of these two terms are:

\( r: \)

i. rounding of vowel: 
\( \circ \circ : \circ : \circ : \circ : \)  

ii. initial (rounding + non-palatality): 
\( \circ t \bar{\circ} \bar{w}, \text{etc.} \)\(^1\)

iii. " (spreading + palatality): 
\( \bar{s}j/\bar{t}j/\bar{c} /j t j \bar{d} \bar{j} \)

\( \bar{r}: \)

i. non-rounding of vowel: 
\( \bar{\tau}: \bar{e}: \bar{e}: \bar{e}: \bar{e}: \bar{a}: \bar{a}: \bar{\alpha}: \bar{\alpha}: \bar{\bar{\alpha}}: \)\(^2\)

\(^1\)Where it is velarity that is initial in a \( rP \) Verb Syllable, the lip-rounding stated at (ii) is so strong that it has been regularly transcribed as a sequence of velar plosive/nasal and labiovelar semi-vowel, e.g. \( \text{rngos-shig (\( \bar{\eta}w\circ:-\))}, 'you mow it'; \text{skoms-shig (kwom-)}, 'you dry it' (also, and perhaps more usually, \( \text{kam-}\)).

\(^2\)If it were not for the suspect form \( \text{thob (thob)} \) referred to in the last paragraph but one, the Rounding system could have been treated as inapplicable to \( \bar{e}b \)-Verb Syllables; and the vowel \( \bar{\tau} \), which is confined to this type of Syllable, would not then have appeared in the exponents given here.
ii. initial (spreading +
non-labiovelarity): š ʒ gʃ/ʃ kj/ʃ, etc.

iii. " (rounding + labiovelarity):

  e.g.

  r:

  i. zo-shig (ʒɔ-)
     'dir sgug sdod (dø:)
  ii. lcags-thab-la me thong (tɔ:)
      mig vag-po ltoe (tɛ:)
  iii. lcog-rtse'i sgang-la zhog (ʃɔ:)
        nyon (ɲɔ:)

  ŋ:

  i. za-gi-man (ʃə-)
      za-ba-red (ʃə-)
  ii. bzas-pa-red (ʃɛ:-)
      lan bskyal-gyi-'dug (kje:-)
      sgo rgyab (gʃəp)
  iii. dbang-gi-'dug (waŋ-)

  All the r-Piece examples are equally examples of the
  Imperative (Affirmative) Clause; the ŋ-Piece examples are
  also either Negative-Imperative or non-Imperative, the

1 Also, but less commonly,  sharedPreferences ː.
latter being in the majority.

The Rounding system provides a means of associating with each other the following rounded and non-rounded vowels, together with rounding and non-rounding as initial-consonant features, as complementary prosodically distributed exponents of the same Labialization term (s) and of the same C-term; the examples below are arranged according to the classification of the Verb in question in terms of Quality (21213111):

i.  
- za-ba-red (sa-)
  - sha ma za (sa)
  - bsas-pa-red (sε:-)
  - zo-shig (so-)
  - zo (so:)

ii.  
- mig lta-ga (ta-)
  - mig ma lta (ta)
  - ltaa-mo bltas-pa-red (tε:-)
  - mig ltos (tε:)

j.  
- tdir ma zhag (sa:)
  - zhag-gi-vin (sε:-)
  - lcog-rtse'i sgang-la zhog (so:)

they are in the habit of eating
they are in the habit of eating
do not eat meat (Bell)
don't eat meat (Bell)
they ate
they ate
mind you eat it
mind you eat it
eat it.
eat it.
in order to look at
in order to look at
do not look
do not look
he saw the show
he saw the show
look and see.
look and see.
do not put it here
do not put it here
I shall put
I shall put
put (the sugar) on the table
put (the sugar) on the table
ngas vi-ge cig btang-ba-vin (tan-)
btang-gi-'dug (tøn-)
ngal la vi-ge cig btang-byung (tæ:-)
btang-mus (tø:-)
ngal'i g-yog-go (po) skad gthon (tö): I sent a letter
he sends
he sent me a letter
in the act of sending
call my servant (Bell)
sent a letter
he sends
he sent me a letter
in the act of sending
call my servant (Bell)

bsdad-pa-vin (qø:-)
bsdad-kiy-in (qø:-)
'dir squg sdod (qø:)

I stayed
I shall stay
stay here and wait

he does not heed (Bell)
he listened
see you listen

gsol-ba btab-pa (tøb-)
" thob-shig (thorp-)
" btab-shig (tøp-)
to pray
mind you pray; also

it is tied with rope
he is tying it with rope
remember to tie it with rope

1 Also, but less often, th5: thong.
It he kissed

\( \text{khe bakval-ba-red (kjer-)/(kje:-)} \) he kissed

\( \text{" bakval-gyi-’dug (kje:-) } \) he kisses

\( \text{" skyol (kje:) (also kje:) } \) kiss

\( \text{f: bcar-ba-vin (tjar-)/(tjas-) } \) I visited

\( \text{f: bcar-gyi-vin (tjaw:-) } \) I shall visit

\( \text{geor-shig (tso:-) } \) mind you visit him

The Rounding term \( r \) is regularly represented in Tibetan orthography by \( q \), while \( \tilde{r} \) is represented by \( a \).

Tibetan orthography does not distinguish in this respect between the \( r \) form of a \( a \) Verb and a \( w \) Verb, e.g. the homophones \( \text{\tilde{\eta}w}: (\text{nngos}, 'mow!' \text{\textbf{r}ngod}, 'fry!'); \) but these two are differently treated phonologically, the former (\( \text{nngos} \)) being \( er \), cf. (\( \text{\tilde{\eta}r \}) \text{\textbf{r}nga-gi-’dug (\etaa-)} \), 'he mows', \( \text{nngas-pa-red (\eta:-)} \), 'he mowed', \( \text{ma rnga (\eta)} \), 'do not mow', and the latter (\( \text{\textbf{r}ngod} \)) being \( w \), cf. \( \text{\textbf{brngod-kyi-’dug (\tilde{\eta}w:)} \), 'he is frying', \( \text{\textbf{brngod-pa-red (\tilde{\eta}w:)} \), 'he fried', \( \text{ma \textbf{r}ngod (\tilde{\eta}w:)} \), 'do not fry'.

A list of \( a \) Verbs is given at Appendix V, divided firstly by Quality, into \( z, g, \eta, \text{etc.} \), and, within this division, into \( \tilde{r} \) and \( r/\tilde{r} \) according as they are exemplified exclusively in the \( \tilde{r} \) Piece or in both \( r \) and \( \tilde{r} \). For many of the \( r/\tilde{r} \) Verbs, \( R. \) was prepared to accept a \( \tilde{r} \) Affirmative-Imperative form as an alternative, sometimes
a more common alternative, to the r form. An
alternation such as this rather suggests that the r
forms, which generally correspond to the Literary-
Tibetan Imperative forms, are possibly in the process of
being discarded in LT in favour of non-rounded forms.

2121324. **Palatalization** \((y, \bar{y})^1\)

A further prosodic system, the Palatalization, deals
with certain syntagmatically related labial and other
features of both initial consonant and vowel of certain
prosodic types of Verb Syllable and Particle Syllable,
and, further, with features of preceding ay Syllables
(e.g. *ma/mi, na*) in Intraverbal Junction. For example,
the degree of backness of the back vowels, and the
degree of frontness of the front vowels, varies with the
presence of palatality or non-palatality as an initial-
consonant feature, e.g. *'dag-gi-'dug-ga* (\(dʒ\dot{\varepsilon}:-\)),
bzhugs-'dug-gas (\(ʃ\dot{-}\)), bskyil-'dug (\(k\dot{\imath}\dot{-}\)), cf.
bkag-gi-'dug (\(kA\dot{-}\)), thub-ma-song (\(th\dot{-}\)), bsgril-rod
(\(dr\dot{\imath}\dot{-}\)); the degree of vowel closure of Syllables with
palatality as an initial-consonant feature is not the
same as that of phonologically comparable Syllables with

^1Though identical in symbolization with the y term of
the Labialization system (2121321) the y term of this
system is unlikely to be confused with it.
initial non-palatality, e.g. phyoe-shig (tʃɛ-), roed (jø:), bzhugs (ju:); cf. rtses-shig (tse-), skol-shig (kø:-), sgug (gu:) sdod; the degree of frontness of open vowels also varies with the presence of palatality and non-palatality as Syllable-initial features, e.g. rkyang-pa-red (kjaŋ-), cf. gnang-ba-red (nang-), shar-song (ja:-), cf. tshar-song tsha:-).

In addition, the degree of frontness and closeness of vowel of such az Syllables as the Negative-Particle ma/ni in the z Initial Piece (21213132, iv, vii, ix; for the n Initial Piece, e.g. mi-'dug mindu: see 21213131, ii) and na can be related to palatality and vocality (j) as initial features of the following Syllable, as opposed to combinations of features other than these (r, dʒ, n, etc.); e.g. fronting (ə), even to the point of frontness (half-openness) (ɛ), in mej5/mej5: mi-vong, jingja:/ji:nema yin-na-vang 'however that may be'; cf. non-fronting (ə), e.g. mare: ma-red, map5:ma-myong, ji:nema: vin-na-min, je:nema: roed-na-med.

The Palatalization system therefore applies to (1) monosyllabic Pieces (Verb Syllable or Particle), and (2) certain disyllabic Pieces, those in which the preceding Syllable is az.
1. monosyllabic Piece

The exponents of the two terms $y$ and $\bar{y}$ are:

$y$

a. initial palatality/prevelarity: $\text{\textbackslash j} \text{\textbackslash n} \text{\textbackslash t} \text{\textbackslash s} \text{\textbackslash d} \text{\textbackslash z} \text{\textbackslash c} / \text{\textbackslash k} \text{\textbackslash j} \text{\textbackslash t} / \text{\textbackslash g} \text{\textbackslash j}$

b. i. (Part. Syll. in a w Piece) lip-rounding: $\text{\textbackslash y} \text{\textbackslash n} \text{\textbackslash z} \text{\textbackslash f} / \text{\textbackslash g} \text{\textbackslash y}$

ii. (otherwise)

ii. (otherwise) $\text{\textbackslash j} \text{\textbackslash n} \text{\textbackslash t} \text{\textbackslash s} \text{\textbackslash d} \text{\textbackslash z} \text{\textbackslash c} / \text{\textbackslash k} \text{\textbackslash j} \text{\textbackslash t} / \text{\textbackslash g} \text{\textbackslash j}$

c. i. (backness + advancing): $\text{\textbackslash u} \text{\textbackslash u} \text{\textbackslash d} \text{\textbackslash o}: \text{\textbackslash o}: \text{\textbackslash c}: \text{\textbackslash o}: \text{\textbackslash j}: \text{\textbackslash a}: \text{\textbackslash t}: \text{\textbackslash A}$

ii. (centrality + advancing): $\text{\textbackslash i}: \text{\textbackslash i}$

iii. frontness $\varnothing \text{\textbackslash y} \varnothing: \text{\textbackslash y}: \text{\textbackslash i}: \text{\textbackslash e}: \text{\textbackslash e}: \text{\textbackslash e}$

d. i. closeness/half-closeness/half-openness/openness:

$\text{\textbackslash u}: \text{\textbackslash o}: \text{\textbackslash c}: \text{\textbackslash a}: \text{\textbackslash A} \text{\textbackslash a}: \text{\textbackslash e}: \text{\textbackslash e}: \text{\textbackslash e}: \text{\textbackslash i}$

ii. (half-closeness/half-openness + raising):

$\text{\textbackslash u}: \text{\textbackslash o}: \text{\textbackslash c}: \text{\textbackslash a}: \text{\textbackslash A} \text{\textbackslash a}: \text{\textbackslash e}: \text{\textbackslash e}: \text{\textbackslash i}: \text{\textbackslash e}: \text{\textbackslash e}$

e. (w-Verb and er-Verb Sylls.) lips more spread: $\text{\textbackslash y} \text{\textbackslash y}: \text{\textbackslash A} \text{\textbackslash o}: \text{\textbackslash o}: \text{\textbackslash o}$

$\bar{y}$

a. initial non-palatality: $\text{\textbackslash g} \text{\textbackslash n} \text{\textbackslash s} \text{\textbackslash t} \text{\textbackslash r} \text{\textbackslash t} \text{\textbackslash r} \text{\textbackslash t}$

b. i. (er-Verb, 2121323) lip rounding: $\text{\textbackslash k} \text{\textbackslash w} \text{\textbackslash d} \text{\textbackslash d} \text{\textbackslash r}, \text{\textbackslash d}$

(w-Piece, 2121321) lip-rounding: $\text{\textbackslash k} \text{\textbackslash w} \text{\textbackslash d} \text{\textbackslash d} \text{\textbackslash r}, \text{\textbackslash d}$

ii. (otherwise) lip-spreading: $\text{\textbackslash k} \text{\textbackslash d} \text{\textbackslash d} \text{\textbackslash r}, \text{\textbackslash d}$

c. i. backness $\text{\textbackslash u} \text{\textbackslash u}: \text{\textbackslash A} \text{\textbackslash o}: \text{\textbackslash o}: \text{\textbackslash c}: \text{\textbackslash o}: \text{\textbackslash j}: \text{\textbackslash a}: \text{\textbackslash A} \text{\textbackslash a}$

ii. centrality $\varnothing \text{\textbackslash i}: \text{\textbackslash i}$

iii. (frontness + retraction): $\text{\textbackslash o} \text{\textbackslash y} \text{\textbackslash o}: \text{\textbackslash y} \text{\textbackslash o}: \text{\textbackslash i}: \text{\textbackslash e}: \text{\textbackslash e}: \text{\textbackslash e}: \text{\textbackslash e}$
d. i. (closeness/half-closeness/half-openness
+ lowering):

\[ \text{y: } \text{o: } \text{f: } \text{i: } \text{i': } \text{u: } \text{u: } \text{y: } \text{y: } \text{y: } \]

ii. half-closeness/half-openness/openness:

\[ \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \text{u: } \]

e. (w-Verb and ør-Verb Sylls.) lips

fully rounded:

\[ \text{y: } \text{y: } \text{o: } \text{o: } \text{z: } \text{z: } \]

e.g.

y

a. bzhugs-gdan 'jags-mus (d3^:+-)

staying

sku-gzugs bde-po yod-shag (j:ø-)

I see you are well

b. i. see 21213212, (2-5)

ii. nyon (n:ø:)

listen

kha skyol (kj:ø:)

kiss it

c. i. lhäs-sa rang-la bzhugs bzhugs-pa-

used you to live in

vin-na (j:y:-)

Lhasa itself, or

sgo rgyab (gj:y:p)

shut the door

(G. and R.)

ii. miel-gyi-vin (-ji:+)

I will meet

bshad shes-kyi-yod-ma-red (ji+ø-)

I do not think they

iii. bshad (j:ø:) shes-kyi-yod-ma-red

know how to speak

da-ga rang zhus (j:y:) chog

I do not think they

we must have a

d. i. bka'-mol ra-po zhus (j:y:) mchog

conversation

(tjh:ø:)

we must have a

rkang-pa rkyangs-pa-red (kjan-)

he stretched out

his foot
ii. see (c. ii) above

e.   ga-dus thad-kyi-yod-na (-j\:\:-)  how long is it  

       la bzhugs-shag (\$'u:--)  since -- -- 

   \y

a.   ga-le thas-a (-\'a:)  yes, he is at home.  

       'o-na chibs-bsgyur gnang-go (nan)  good-bye (Bell)  

   b.   i. bries 'gro-gi-dug-ga  it goes and changes, 

           (dru-, -dug-)  you know  

       bkol-shig (kw\$:)--  load it  

   ii. mgvos-po shes-kyi-a-yin (-\'\:--)  I doubt whether I 

          dga'-gi-red (g\$--)  shall know it soon  

   c.   i. slab-rog (l\$br\$:) gnang (n\$:)  you will do well  

          bzo (so) thub-kyi-'dug (thu:-, -du:)  to -- -- 

          ii. gzig-pa-red (sigbe-)  please teach  

          'di-'drgs zer-kyi-'dug (siga-)  he can make  

          iii. mig ma (ma) lta (ta)  he saw  

              sprad-kyi-yin (tre:-)  that is what he says  

   d.   i. bris-dus (tri:-dy:-)  do not look  

          rgyal-sgo'i rtsa-la sgug (\$wu:)  I shall give  

           sdod (d\$:)--  when I write  

   ii. skad gzhan-pa slab-dgo-yod-na  wait near the main 

          (l\$b-, -\$wo-)  door (G. and R.)  

       sbas-se-kob-kyi bltad-mo  or do you have to 

       lta-ba-red (ta-)  learn other 

       languages  

       they usually see 

       a film
e. zhwa-mo gon-shig (kwöːː--) wear a hat
   lam-ka ston-shig (töːː--) show me the way

The Syllables that constitute \( \bar{y} \) and monosyllabic \( \bar{y} \)
Pieces, whether Verb or Particle, can each be classified
as either \( y \) or \( \bar{y} \) accordingly, e.g. \( y \): (Vb.), 'dag, vod, nyon; (Part.), rgyu, vag; \( \bar{y} \): (Vb.), gnang, 'gro, bkol; (Part.), dus, g. Verb Syllables are too numerous for
listing; but Particle Syllables can be listed as follows:
\( y \): (w), rgyu, byung, nyung/myong, vod, yong; (e), yang,
vag, shag/zhag; (y) byas, shig, bzhin, vin.
\( \bar{y} \): (w), dus, mus, 'dug, dgos/dgo/go, 'gro/gro, no, long, do,
dwogs/dog/rdog, song; (e), ma/mi, gak/ga/ka, 'dra,
tsang, dang, betang, a, ba/pa/ga/nga/ra, sa, thabs, ta,
pas/gas/res, min, med/mad, nyan/mkhan; (y) 'da'i,
nas/ni, se/ze, rtsis, red.

The \( y \) term correlates with the Juncture classifications
k, c, n, l, s, and the \( \bar{y} \) with the p, t, k, tr, ts, n, m, l,
s, q (2121314). Thus, any lexical item classified as c
must be \( y \), e.g. (Vb.), bchad, mchod, (Part.) byung, byas;
and any lexical item classified as p, t, tr, ts, m, q must
be \( \bar{y} \), e.g. (Vb.) phebs, bstan, (Part.) mus, ba/pa/ga/nga/ra.

\( y \) is regularly represented in Tibetan orthography by the
gsal-byed \( y \), ny, sh, zh, c, ch, and l, and by the ya-btags,
k\( y \), khy, gy, py, phy, by, my, and \( \bar{y} \) by any letters other than
these, e.g. k-, dw-, gr-, a-.
The remainder, lexical items classified as k, n, l, or s, can be either y or ŋ, e.g. (Vb.)

<table>
<thead>
<tr>
<th>k</th>
<th>n</th>
<th>l</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>brkyang-song</td>
<td>nyan-song</td>
<td>ma yong</td>
</tr>
<tr>
<td></td>
<td>kjäː-</td>
<td>nɛː-</td>
<td>jɔː+</td>
</tr>
<tr>
<td>ŋ</td>
<td>bkangs-song</td>
<td>gnan-song</td>
<td>yar long</td>
</tr>
<tr>
<td></td>
<td>kɑː:-</td>
<td>nɛː:-</td>
<td>lɔː</td>
</tr>
</tbody>
</table>

Most Verbs have y forms only or ŋ forms only; but certain ɔ-Piece Verbs (212132213) have both. These variable ɔ-Piece Verbs are those (i) which are classified in terms of the Quality system as z, d, n, or rf (for f see 2121322), and also (ii) to which the Rounding system (2121323) applies (ezr/ʃ, adr/ʃ, enr/ʃ, erfʃ/ʃ). Some Verbs of each of these types have a ŋ r form (Imperative) in spite of the fact that the ŋ forms are y, or, in the case of the ɔz Verb, in spite of the fact that the ŋr form (but not the ŋs, 2121313) is y. In other words, (i) some ɔ Verbs of these types have palatality (ŋ c ŋ) or prevelarity (kj gŋ) in all forms; (ii) others have palatality or prevelarity in some forms (dʃ, nʃ, rfʃ, glʃ) but velarity (ŋ k ŋ) in others (r, Imperative), e.g.

1. y forms only

\[\begin{align*}
\text{erf} & \left\{ \begin{array}{l}
yʃ: & \text{kha bskyal-ba-yin (kjɛː:-)} \quad \text{I kissed} \\
yr: & \text{skyol-shig (kjɛː:-)} \quad \text{kiss it} \end{array} \right. \\
\end{align*}\]

1Also, and perhaps more commonly, kjɛː:-.
Those ə Verbs which, like bskyal/skyol, rgyal, and nyan/nyon, have ɣ forms only can be classified as ɣ Verbs; those which, like bkel(khal)/khol, bgad/dgod, and brngas/rnga/rngos, have a ɣ form (Imperative) can, by the same principle, be classified as ɣ Verbs. It is of some interest that those ə ɣ Verbs which are spelt with va-btags (-ɣ-) have the va-btags spelling for all their forms, e.g. bskyal/skyol, rgyal, while the ə ɣ Verbs are not spelt with va-btags at all, e.g. bkel(khal)/khol, bgad/dgod, bkal/bkol, 'load up', in spite of the fact that the ɣ

1 Rare, and rather literary; more commonly gje:-.

2 Also rnga-shig (ŋa-).
forms of (i) the Verb *bskyal/skyol* and the *y* Verb *bkal/bkol*, for example, and (ii) the *y* Verb *rgyal* and the *y* Verb *bgad/dgod*, are, respectively, homophones (i. *c/kje:*, and *c/kje:*; ii. *j/gje:*, and *j/gje:*). In this respect the orthography is in harmony with the phonology, but at odds with phonetic analysis.

For those *ez* Verbs which alternate velarity (*ŋ k ɡ*) with palatality or prevelarity (*n c/kj j/gj*) *y* correlates with *lř*, and *y* with *lr* and with *s* (2121312).

2. disyllabic Piece

In *y* Pieces that are also examples of 1 Juncture the second Syllable of the Piece is characterized initially by a non-syllabic front-vowel (*j*), while the vowel of a preceding *ez* Syllable in Intraverbal Junction, e.g. *ma/mi* (Negative), *na* (Conditional) is characterized by a degree of frontness and closeness (*o/e*), e.g.

'idon-pa'i lugs-srol mi-yong (*mẽjɔ:*) it is not customary to mine for them (Bell) gnves-po rang gnang-mi-yong (*-mẽjɔ*) they do not much like yin-na-yang (*-nẽjɔ:*), however (that may be) grang-mo yin-na-yang (*-nẽjɔ:*) even though it is cold

In *ỹ* Pieces that are also examples of 1 Juncture the second Syllable of the Piece is characterized initially by a non-syllabic back vowel (*w*), or by alveolarity and laterality (*l*) or friction (*r*), while the vowel of a
preceding a Sylable is characterized by openness and frontness (a; there are no examples of centrality, ə), e.g.

'di nga'i ma-red (mare:) this is not mine (G. and R.)
gas yod-pa-ma-red-pa (-marə-) there is not any, is there.

The same features as for the ḻy Piece (a), with the addition of centrality (ə), also characterize the vowel of a a Sylable in all disyllabic Pieces in which the Piece is non-l, regardless of whether the Piece is y (with initial palatality, n ɨ, in the second Sylable) or ū (with initial non-palatality, e.g. m r, in the second Sylable, e.g.

y

bod-kyi mthong-ma-myung (-menû) I have never seen a Tibetan one

phebs-lam-la sku mnyel-po ma-byung-ngas (madʒun-) I hope you had a good journey (G. and R.)

ū

thag ra-po mchod-ma-song (-mesû) it was not sort of decided 'brug-pa vin-na-min (-nomɛ:) whether she is Bhutanese or not

mdas yod-na-a (-neʔa:) would that -- -- were here (Bell).

me/me and ne/ are therefore regarded as the ly-Piece forms of ma/mi and na. It seems strange that the vowel features of ma/mi and na are different in the ly Piece from what they are in other types of y Piece (cy, ny); but there is no suggestion in the material that the phonetic facts
support an account of them in any way different from the one given here (there are no such examples as *-meŋų-
-ma-nyung, *meľųŋ-ma-byung-).

212133. Prosodic Systems dealing with Vowel-closure and associated Features

Only one prosodic system is dealt with in this section: Closure.

Closure

The Closure system is set up in order to be able to associate inter-related vowel-closure features extending over two, or three, Syllables within the Word. This syntagmatic relationship can most easily be demonstrated from examples containing lexical items whose vowels vary in association with vocalic differences in the preceding or following Syllables. Thus, in the following pairs of Words, (a) the vowel of the first Syllable varies in association with the differences in the second, e.g.

i. gnang (ə/ʌ:)
   gnang-song nā:sə
   phyag-las gnang-mus (nā:my:) red

ii. a (a/ʌ)
   a-vod əajə: he gave him
   a-vin əají: he is busy working
   I doubt whether I have
   I doubt whether I am
(b) the vowel of the final Syllable varies in association with differences in that of the immediately preceding Syllable, e.g.

i. pas, pa'i (ɛː/eː)

byas-pas tjhe:be:
on my saying

ma yin-pa'i jimbe:
through our not being

ii. rog (ɔː/oː)

gnang-rog (nː:roː) gnang

please give

bslabs-rog (lybroː) gnang

please teach;

and (c) the vowels of the first and third Syllables vary in association with that of the second, e.g.

mi/ma (i/ɛ/a), gas/ngas/pas (eː/eː)

would there not be

mi-'dug-gas minduge:

are there not

mi-yong-ngas mejone:
is it not.

ma-red-pas mariję:

The syntagmatically related vowel features are treated as exponents of terms in the Closure prosodic system, applicable to a disyllabic or trisyllabic Piece (the Closure Piece). The Closure system comprises the two terms c (from close) and o (from open), whence any Closure Piece can be classified as a c Piece or as a o Piece.

The most economical form of statement for the exponents of these two terms requires that two grammatical types of Closure Piece be distinguished: 2121331, Verb (Main or
Auxiliary) and Particle; 2121332, Verb Complement and Particle Piece, and Particle Piece (in which both, or all three, Syllables are Particle).

2121331. Vb. (Main or Auxil.) and Part.

A Closure Piece in which the Main or the Auxiliary sub-category of Verb is exemplified is either (i) disyllabic, comprising a Verb Syllable (Main or Auxiliary) and a Verbal-Particle Syllable, in that order, e.g. tj'a:be-bcar-ba-win I visited, tj'a:ge-bcar-gvi-win I shall visit, or (ii) phonologically trisyllabic, comprising a Verb Syllable, the Nominalizing-Particle Syllable na/ha/ha/nga/ra, and the Nominal-Particle Syllable gi/gvi/ki, e.g. zhing-kha 'di btab-pa'i (tobe:) don-dag-la in order to sow this field (Bell), London-la phebs-pa'i (phe:be:) sku-don your reason for coming to London. Since, however, the phonologically trisyllabic Piece is phonetically disyllabic, the following single statement of exponency suffices for both c and o:
First Syllable

Second Syllable

i.


half-closeness $e: e: o: e:$
half-openness $e: e: o: e:$

(half-closeness + backness + spreading) $e$

(closeness $i: i: y: y: u: u: i$, half-closeness $e: e: o: e$, half-openness $e: e: o: e$, backness + spreading $e$

ii.

closeness $i: i: y: y: y: u: u: i:$

half-closeness $e: e: o: [e][e:] [e:]$

(half-openness + short duration) $e: [e]

(half-openness + long duration + nasality) $e: [5:

(half-openness + backness + spreading) $e: [5:

[(openness + backness) $e: [(openness + backness) + spreading) $e: $]

medium centrality $e$

(velarity + occlusion + syllabicity) $e$

1In 312133 $v$ is distinguished from $o$, and $\varepsilon$ from $e$, but not $v$ from $i$, $\alpha$ from $a$, or $\omega$ from $u$.

2The only example of $i: i$ is provided by bskyed-kvi'-'dug (p. 607).

3Features suspected of being due to spelling pronunciation are enclosed in square brackets (p. 598).
half-closeness e: ø ø: ø: hal: c : o : openness a ø: a: centrality e:

he fastens it
he is at home
he might catch this illness
is he in residence
you will do well to
he is working
it is gravelly

he offered
someone called Mr. Sprigg
there is no help for it
(Bell)

he offered
he is at home
someone called Mr. Sprigg

he might catch this illness
there is no help for it
(Bell)

he offered
he is at home
someone called Mr. Sprigg

he might catch this illness
there is no help for it
(Bell)

he offered
he is at home
someone called Mr. Sprigg

he might catch this illness
there is no help for it
(Bell)

he offered
he is at home
someone called Mr. Sprigg

he might catch this illness
there is no help for it
(Bell)

he offered
he is at home
someone called Mr. Sprigg

he might catch this illness
there is no help for it
(Bell)
Certain of the first-syllable features that appear in the c exponents at (ii) above (ə ə: ɔ ɔ: ɤ), e.g. mthong-gi-'dug thongi-he sees, zhon-gyi-'dug sengg-he mounts, 'phrod-kyi-'dug tseg-he delivers, have been enclosed in square brackets, to indicate that there is considerable doubt whether they should be regarded as genuine. It is probable that it is only in self-conscious utterances, under the influence of the Tibetan orthography, that such vowels as these are to be heard in the first Syllable of a c Piece; this possibility is examined further in the course of considering the alternation in exponency of certain prosodic and phonematic terms below (pp. 607-10). If these features are indeed confined to artificial utterances, they should be removed from the c exponents at (ii); as it is, these features are common to both c and o Piece.

ə, ə:, ɔ, ɔ:, and ɤ are not the only vowels to be common to the first Syllable of both types of Piece; for so, too, are the vowels e:, e, and ɤ, while the vowels
The vowels that are peculiar to the c Piece, and therefore provide criteria of the c term, are i, i:, I:, y, y:, y:, u, u:, ū:, o:, e, e:, e:, a, a:, a:, and o: in the first (phonetic) syllable, and i:, y, y:, e:, o:, and e in the second syllable, together with ɔ; while e:, o:, a, a:, and a: (and possibly also e, e:, ū:, o, ɔ:; and ɔ in unself-conscious utterances) are peculiar to the first syllable of the o Piece, and i:, ɔ, and e: to the second. These vowels therefore provide criteria of either c or o. The identification of a Closure Piece as c or as o, does not of course depend solely on criteria drawn from a single syllable. It may be necessary to cite features of both syllables jointly in order to establish the identity of a given Piece, as, for example, where the vowel of the first syllable is ɔ: or ɔ:, and that of the second is i, u, ū, u:, ū:, e, e:, e:, o, ɔ:, a, a:, ɔ:, or ɔ, both of which sets of vowels are common to both c Piece and o Piece. When combined, the two vowels are proof that the Piece in question is o; e.g.

par skyon-ni cɔːni
bstan-song teːs5:
min-na mɛːne

having printed
he showed
if I am not.
Where, however, the vowel of the first syllable is e: or ε (or, possibly, ø:; ø:, or ø) and that of the second is o or i, even the combination of the two vowels (e: -- ø/ε, ε -- ø/ε, [ø: -- i], [ø -- i], [ø -- i]) is not sufficient for determining the prosodic type of that Piece, for such a succession is common to both types of Closure Piece. It then becomes necessary to specify features of the intervocalic consonant or consonants: velarity (gγ) is sufficient to identify the Piece as c, and non-velarity (e.g. b n j) as o, e.g.

\[
\begin{align*}
&\{\begin{array}{ll}
oP & \text{te:be- ster-ba-red} \\
& \text{he gave}
\end{array}
\} \\
e: -- \varepsilon & \{\begin{array}{ll}
oP & \text{te:ge- ster-gvi-yin} \\
& \text{I shall give}
\end{array}
\} \\
oP & \text{de:ge- bsad-kvi-yin} \\
& \text{I shall stay}
\end{align*}
\]

\[
\begin{align*}
e: -- i & \{\begin{array}{ll}
oP & \text{phe:ni phebs-ni} \\
& \text{having come}
\end{array}
\} \\
oP & \text{phe:gi phebs-kvi-'dug} \\
& \text{he comes}
\end{align*}
\]

\[
\begin{align*}
\varepsilon & -- \varepsilon \{\begin{array}{ll}
oP & \text{tæmba- bstan-pa-red} \\
& \text{he showed}
\end{array}
\} \\
oP & \text{tænge- bstan-gvi-yin} \\
& \text{I shall show.}
\end{align*}
\]

This brief section dealing with criteria, as opposed to exponency, has been included only to show that there is no Closure Piece that cannot be identified, as c or as o; but in order to ensure that every example can be identified, it is essential to include intervocalic consonantal features in certain of the criteria.

Once the criteria of the c and the o terms have been
stated, the means provided whereby the c and the o Pieces can be distinguished, it becomes possible to classify both Verb Syllables and Particle Syllables according as they can or cannot be included in either type of Piece.

A considerable number of Main and Auxiliary Verbs, e.g. shi die, bzhuge stay, ldin̥g hover, can be exemplified only in the c Piece, and are therefore classified as cP (or c) Verbs; the remainder, e.g. phy̥e open, klog̥ read, gnang give, can be exemplified in either type of Piece indifferently, and can therefore be classified as c/oP (or c/o) Verbs.¹

Similarly, every Particle Syllable that can be contained in the Main/Auxiliary type of Closure Piece can also be classified as either c (and confined to the c Piece) or c/o (alternatively ṡ, or o, and containable in either type of Piece). Since these Particles are much less numerous than Main and Auxiliary Verbs, it is possible to list them:

¹Since there are only two categories, the c and one other, the non-c category could perfectly well be termed the ṡ (non-c), or even the o, instead of the more cumbersome c/o. If c and o were adopted as the names of the two categories, the signification of c would be 'confined to the c Piece' and that of o would be 'non-confined'; alternatively, o would signify 'exemplifiable in the o Piece' and c 'confined to the c Piece'.
i. gi/gyi/kyi, dua, rgyu, mus, rtsis;

ii. thabs;

c/o

i. sa/ze, med (mad), rog, dwogs (rdog), da, 'gro (gro),
yong, yod, dgoe (dgo, go), nyong (nyung), song long,
pa/ba/ga/nga/ra (Nominalizing, Past), pas/gas/ngas/ras,
pa/ga/nga, mkhan (nyan, ga (ka, kag), ta, (b)stanga,
shag/zhas, sa, a (Imperative. Dubitative), byas, taang,
na, ya/yag, ma/mi, nas (ni);

ii. shig, bzhin, 'dug, byung.

It is significant that the CP Particles are written with
one or other of the letters i and u in Tibetan orthography,
and with a provided that it is followed by b, while the oP
Particles are, with few exceptions (the four Particles in
section (ii)), written with one or other of the letters
a, o, and a when not followed by b.

An important advantage of applying the prosodic analysis
adopted here to the syntagmatically related vocalic features
of the two, or three, Syllables of the Closure Piece, and
an additional reason for adopting it, is that it enables
certain pairs of vowels to be associated with the same term
of the Labialization system (y, w, ø; 2121321) or with
the same V term (31222), as providing alternative
exponential features of those terms under alternative
prosodic conditions, one feature being appropriate to the
c, and one to the o, Piece.

In the c/o Verb Syllable the following pairs of
vowels can be associated:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>oP</td>
<td>ε</td>
<td>o</td>
<td>a</td>
<td>o</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
<td>a</td>
</tr>
<tr>
<td>cP</td>
<td>i</td>
<td>u</td>
<td>w</td>
<td>o</td>
<td>w</td>
<td>u</td>
<td>a</td>
<td>e</td>
<td>y</td>
</tr>
</tbody>
</table>

The Verbs characterized by these alternations in vowel
feature are of the following Quality types (2121311):
(1)-(2) z; (3) z, m; (4)-(5) g, r; (6)-(7) n;
(8)-(9) d; (10)-(11) n; (12) m; (13)-(14) r.

E.g.

1 \{ oP dag-zhus byed-par tshêba: \quad \text{in order to revise} \\
   \quad \text{cP } 'di byed-thabs (tshidyp) yod-ba-ma-red \quad \text{there is no help for it} \quad \text{(Bell)}

2 \{ oP 'gro-ba-red drobus- \quad \text{they go} \\
   \quad \text{cP } 'gro-gi-'dug drugy- \quad \text{they are going} \\
   \quad \text{cP } mgO na-ba-red nabe- \quad \text{he had a headache} \\
   \quad \text{cP } " na-gi-'dug nagi- \quad \text{he has got a headache} \\

3 \{ oP sha bkams-pa-red kambê- \quad \text{he dried meat} \\
   \quad \text{cP } me-shing skem-gyi-yin kampa- \quad \text{I shall dry firewood} }
I read

I shall read

he received

he will receive

he put

he is putting

he came

if he comes

I shall come

he gave

" "

he will give

he is in the act of giving

I stayed

I shall stay

he drank

we will drink tea

he smoked

" "

he is smoking
it came out
if there is a chance of work (G. and R.)
smoke will come out (G. and R.)
he got thirsty
I am very thirsty (G. and R.)
he won the war
he will win the war

Type 14 has been enclosed in square brackets because there are no examples in the thesis material to support it, though there is little doubt that for r-Piece Verbs this alternation, parallel to that shown at (9) and (11) for d-Piece and for n-Piece Verbs respectively, is possible. The only examples of r-Piece Verbs of this type in the c Piece are characterized not by the closeness (y:) that one would expect but by the half-closeness (s:) appropriate to the o Piece, e.g.

he is boiling water
he is undoing a knot
the water is boiling; c.f.
chu skol-bas kørə: did you boil the water
dkol-ba-yin tføre-
 dkrol-song trə:s5

but all the available cP examples were, unfortunately,
read from a printed text, and can reasonably be considered
to be spelling pronunciations (in the case of 'khol-gvi-'dug
this suspicion is confirmed by the Reading-Style
pronunciation -ndu:).

There are certain c/oP Verbs, however, e.g. phebs,
bstan, ster, which are not characterized by an alternation
in vowel according as they are exemplified in the c or the
o Piece (the alternation eː/ɛ by which ster and similar
r-Piece (Quality) Verbs are characterized is a function
not of Closure but of Tempo (21311), e.g. ster-ba-red
tə:be-/təre-, khyer-ba-red che:be-/chere-, he carried); e.g.

phebs\[\{\begin{array}{l}
(cP phebs-pa-red phe:be- he came \\
(cP phebs-kyi-’dug phe:qi- he is coming
\end{array}\}\]

ster\[\{\begin{array}{l}
(cP ster-ba-red te:be-/təre- he gave \\
(cP ster-gyi-red te:gi- he will give
\end{array}\}\]

bstan\[\{\begin{array}{l}
(cP bstan-pa-red təmbe- he showed \\
(cP bstan-gyi-red təŋga- he will show
\end{array}\}\]

In spite of the fact that in this respect phebs, ster
bstan, and other Verbs like them, differ from the majority
of c/oP Verbs, there is no doubt that they are c/oP; for
they can be contained in Pieces that satisfy either the c
or the o criteria. In particular, the half-open degree
of vowel aperture of the diagnostic Particles pas and rog
(ε:, o:) proves it:

rgyal-rtse-la phebs-pas phe:be: did you come to

rta-la rtsa-wa-chag vag-po ster-bas tere: did you give plenty

bstan-rog (tε:ro:) gnang please show me

(of grass and grain

to the horses

(not *phe:be:, *tere:, *tε:ro:).

The only Verb to be noted from R. that does provide an
eexample of the alternation of e: with i: is skyped 'give

birth to', 'create', for which he would accept ci:gi- as an

alternative to ce:gi- in, for example, skyped-kyi-'dug

'they create', with the result that for this Verb a CP

exponential feature (i:), in skyped-kyi-'dug, alternates

with an oP (e:), in e.g. skyped-pa-red ce:be-'they

created'.

Another speaker of the Lhasa dialect, my servant Penjor
Phuntshok (dpal-'byor phun-tshogs) (P.), a nobleman of the
Tsharong (tsha-rong) family (App. II), would accept the
form ci:gi-, but not ce:gi-. Further, the form phi:gi-
(phebs-kyi-'dug) was heard from some Lhasa-dialect speakers
for R.'s phe:gi-; so that for some speakers at least, some

of the Verbs of the type stated in the previous paragraph
as not having alternative vowels in R.'s speech do alternate for some speakers. It is possible that orthography has something to do with R.'s insistence on regarding these types of Verb as being characterized by the same vocalic features in o and c Piece alike; for he gave the orthography as his reason for avoiding in his own speech certain pronunciations that he agreed were current in the dialect. Thus, once they had been pointed out to him, R. readily accepted the alternatives o: and o:, a and a: and Λ: as his own usage; for there is no orthographic means of symbolizing the latter member of each pair independently of the former; but he was reluctant to accept the alternatives e and y, e: and y:, e and i, o and u, and, at first, e: and e:; for the latter member of each of these pairs can be symbolized differently from the former, y, y:, and u by u, as opposed to the o that is obligatory for e, e:, o, and o, i by i, as opposed to the e that is obligatory for e, and e: by e, as opposed to the a that is obligatory for e:.

To use the closer of the alternative degrees of aperture in the c Piece would, he insisted, result in orthographic and lexical confusion. It was for this reason, R. said, that he made a point of avoiding e.g. thungy-, fynsy-, and try:gy-, in mthong-gi-’dug, he sees, zhon-gyi-’dug he mounts, and ’phrod-kyi-’dug he delivers, respectively,
which he agreed were to be heard from other speakers of the dialect, in favour of thøngi-, jøngi-, and tøøgi- respectively: the form thungyi-, for example, might be confused with the thungyi- of thung-gi-'dug he drinks.¹

For phy-e-gi-‘dug he opens, rtse-gi-‘dug he plays, and len-gyi-‘dug he takes, on the other hand, in each of which the Verb Syllable is spelt with e, R. would accept tshigig- and tshægi-, tsigig- and tsægi-, and lënggi- and len-gi- respectively as free variants; for gon-gi-‘dug ‘he wears’, he considered khyngyi- to be appropriate to informal, and kængi- to formal, occasions.

R.’s usage, however, as reflected in both scripted and unscripted recordings, does not always support his preferences. The following phonetic forms, to which he preferred khøgig-, thøngi-, and tshægi-, are taken from recordings, in which his pronunciation is less self-conscious than in examples that he volunteered after some reflection:

ha go-gi-med  
khùge-  I do not understand

du-be thon-gyi-‘dug  
thỳngyi-  smoke will come out (G. and R.)

kha zhed-drags skom-gyi-`dug  
kumgig-  I am very thirsty (G. and R.)

¹P. not only pronounced mthong-gi-‘dug (he sees) thungydu:, but insisted that it and thung-gi-‘dug he drinks were homophonous.
gsol-ja mchod-kyi-yin tʃhyːgyː- we will drink tea

Although R. believed, erroneously, that he did not distinguish c and o exponential features for the Verb Syllables go, thon, skom, and mchod, there are two Verbs, 'gro (go) and yong, (come), for which he had no hesitation in accepting alternative vowel-aperture features (o/u and a/ŋː/u respectively), e.g. 'gro-ba-red drobe-they are in the habit of going, cf. 'gro-gi-'dug drugy-he is coming; yong-ba-red junbe-/jʊŋː- he came, cf. yong-gi-'dug jʊŋːyː- he is coming. Since both these Verbs are in very frequent use, much more so than go, thon, skom, and mchod, it is possible that the less common a Verb is, the more R. feels able to resist the alternation of vowel.

No c-Piece Verb Syllable can be characterized by the alternation of vowel aperture, one for the c and one for the o Piece, because it cannot be contained in the o Piece. In the following examples of cP Verbs, all of them also, of course, examples of the c Piece, the Particle category is exemplified by both gi/kvi/kvi, which is a cP Particle, and confined to the c Piece (p.601), and pa/ba/ga/nga/ra, which is c/o, and can therefore also be exemplified in the o Piece; this has been done so that these examples may be directly compared with the examples of the c/oP Verbs on pages 603-5:
these Verbs are of the following Quality types (2131311):
z, shi; g, bzhugs; n, ldin; d, bris; n, mthun;
b, bslabs; m, bskums; r, phul, bskur).
Alternation in vowel aperture is much more a feature of the c/o Verb Syllable than of the c/o Particle Syllable; and, in the grammatical type of Piece being considered here, (but cf. also 2121332), only the two Particles pas/gas/ngas/ras and rog (Nominalizing) show this alternation. In the c Piece these Syllables are characterized by the closer of the two aperture features, half-closeness (e:, o:), and in the o Piece by the more open (e:, o:); e.g.

c e: regval-rtse-la bzhugs-pas ju:be: did you stay at Gyantse

Hhang-pa mdas ge regyab-pas jrbe: have you swept this room (Bell)

o: phul-rog (phy:ro:) gnang

bod-skad bslabs-rog (lxbro:) gnang please teach me Tibetan

The alternation in vowel aperture on the part of these two Particle Syllables pas/gas/ngas/ras and rog is particularly useful diagnostically, as a means of classifying Verb Syllables as c or as c/o, especially where the Verb Syllable is one of those which are not characterized by alternation in vowel aperture (p. 606).
No other single Particle Syllable is characterized by alternative degrees of vowel aperture; but there is a corresponding alternation for combinations of the Nominalizing Particle pa/ba/ga/nga/ra with either the Genitive Particle gi/gyi/kyi/-’i or the Agentive Particle gis/gyis/kyis/s: half-closeness (e:) in the c Piece, and half-openness (e:) in the o:

\[
\begin{align*}
\text{c e:} & \quad \left\{ \begin{array}{l}
\text{khos drel brdungs-pa’i (dupbe:)} \\
\text{zhing-kha ’di btab-pa’i (txbe:)}
\end{array} \right. \\
\text{while he was beating} & \quad \text{the mule (Bell)} \\
\text{dus-la} & \\
\text{don-dag-la} & \\
\text{in order to sow this} & \quad \text{field (Bell)}
\end{align*}
\]

\[
\begin{align*}
\text{o e:} & \quad \left\{ \begin{array}{l}
\text{byas-pas tjhe:be:} \\
\text{London-la phebs-pa’i (phe:be:)}
\end{array} \right. \\
\text{on my saying} & \\
\text{sku-don} & \\
\text{your reason for} & \quad \text{coming to London}
\end{align*}
\]

The Pieces given in this paragraph differ from all other examples of the c and the o Piece given above in that they are analysed phonologically as comprising not two but three Syllables, one Verb and two Particle, despite the fact that they are phonetically disyllabic.

Unlike the c/o-Piece Particles (p. 602) the c/oP Verbs are too numerous for listing; but the orthography provides a fairly reliable means of identifying them: they are regularly written with one of the vowel letters e and e, or with a when not followed by h, the same orthographic features as, with certain exceptions, distinguish the c/oP from the oP Particles.
Those c/oP Verb Syllables that are not characterized by alternative vowel-aperture features in accordance with differences in type of Closure Piece are regularly symbolized (i) by e immediately followed by either b, d, or a, and by r or l (the Tempo alternation e:/e that characterizes Verbs of this latter type, e.g. ster-ba-red te:be-/te:ve- he gave, is not to be confused with a Closure alternation), e.g. sleb arrive, phabs come, 'gyal fall 'phel spread, rjed forget, brjes change, bzhed fear, ster give, and possibly also bzhed eat, and khyer carry;¹ and (ii) by a immediately followed by n, e.g. bstan show, man (a phonetic spelling of min) am/are not, phen profit by, dran recollect, nyan listen to, san listen to.

Like the c/oP Verbs, and unlike the cP Particles (p. 602), the cP Verbs are also too numerous to list; but the orthography regularly indicates them by the vowel letters i and u, and by a when immediately followed by b (cf. also the spelling of the cP Particle Syllables; p. 602),

¹ In e.g. bzhed-kyi-yod-pas do you drink, a phonetic form jigi- seems to be more common than je:gi-, which is perhaps to be regarded as a spelling pronunciation. Alternative forms chi:gi- and chir- have been observed for e.g. khyer-gyi-’dug and khyer-ba-red respectively; these would require khyer to be classified as cP (p. 601).
any of which orthographic features necessarily indicate that not only the Verb but any Closure Piece containing the Verb must be c, whatever the Closure classification (c, c/o) of the following Particle Syllable may be.

Most of the c/oP Particles, those listed under (i) (p. 602), are written with e, o, and a (excluding ab); but a few of them, those listed under (ii), are, however, written with i and u. It is significant that all six cP Particles are written with i, u, or ab; but, because of the overlapping c/oP Particles listed under (ii), i and u in Particle Syllables fall short of being a guarantee that the Verb + Particle Piece containing them is a c-Piece.


This type of Piece comprises (a) disyllabic and trisyllabic Pieces in which the first Syllable is a member of the Complement sub-category of Verb (vin, vod, red, 'dug, min/man, med/mad, byung, yong) or of a sub-category of Verb Particle comprising vin, vod, red, 'dug, min/man, med/mad, byung, yong, song, and myong/nyung, each of which, apart from song and myong/nyung, is a homophone of one of the members of the Complement sub-category of Verb, and the second Syllable of the disyllabic Piece is the Particle pas/gas/ngas/pas, e.g. vin-pas jimbe: are you, bzhes-kvi-vod-pas -jøße: do you drink, while the second
Syllable of the trisyllabic Piece is the Nominalizing-Particle Syllable \( pa/ba/ga/nga/ra \), the third Syllable being either the genitive Particle \( gi/gyi/kyi/-i \) or the Agentive Particle \( gia/gvia/kyia/-a \), e.g. de \( min-pa'i \) (membe:) phyang-lese work other than this, gcig-gor ma\( \) \( bin-paa \) jinbo: through or not being alone; or (b) disyllabic and trisyllabic Pieces in which the first Syllable is the Negative Particle \( ma/mi \) and the second is one of the Verb Syllables \( red, 'dug, hyung, or yong \), e.g. \( mi-'dug \) mindu: no, there would not be, \( ma-red \) mare it is not, or one of the Particle Syllables \( red, 'dug, hyung, yong, song, or myong/hyung \), e.g. \( mchod-ma-song \) -\( mesu \) it was not decided \( gro-ma-yong \) -\( ma\( tu \) I have never been, while, in the trisyllabic Piece, the third Syllable is the Interrogative Particle \( pas/gas/ngas/ras \), e.g. \( btang-mi-'dug-gas \) -\( minduge: \) has it not been sent, \( btang-ma-song ngas \) -\( masang: \) did he not sent it; or (c) disyllabic Pieces in which the first Syllable is the Dubitative Particle \( a \), and the second is \( vin \) or \( vod \), whether Verb or Particle, e.g. \( vag-po shes-kyi-a-yod \) -\( aje \) I doubt whether I do know it, \( vag-po a-vin-na \) -\( ajI: \) - I doubt whether it is.

The exponents that can be stated for c and o with regard to these three types of Piece are:
(a)  \begin{tabular}{lll}
\textbf{First Syllable} & \textbf{Second (and third) Syllable} \\
c: closeness & \textit{iu} & half-closeness & \textit{e}:
\end{tabular}

\begin{tabular}{lll}
o: i. closeness & \textit{iu} & \{half-openness & \textit{e}
\end{tabular}

\begin{tabular}{lll}
i. non-closeness & \textit{e} & \textit{e} & \}
\end{tabular}

e.g.

c

\textit{gcig-gor ma vin-pas jimbe:}

\textit{rgyab-kyi-pas -jimbe:}

\textit{chab-gsang yag-po 'bab-kyi-'dug-gas -duge:}

through our not being
shall you be printing
do you pass water well
(G, and R.)

(b)  \begin{tabular}{lll}
\textbf{First Syllable} & \textbf{Second Syllable} & \textbf{Third Syllable}
\end{tabular}

\begin{tabular}{lllll}
c: closeness & \textit{i} & closeness & \textit{u} & half-closeness & \textit{e}:
\end{tabular}

\begin{tabular}{lllll}
\begin{tabular}{l}
\{openness \\
i. centrality
\end{tabular} & \textit{a} & \{closeness & \textit{iu}
\end{tabular}

\begin{tabular}{llll}
o: \{\ \\
i. half-openness
\end{tabular} & \textit{e} & \{half-closeness & \textit{e}:
\end{tabular}

\begin{tabular}{llll}
\begin{tabular}{l}
\{closeness \textit{u} \\
ii. half-openness
\end{tabular} & \textit{e} & \{half-openness & \textit{e}
\end{tabular}

\begin{tabular}{l}
\textit{Fast Tempo only.}
\end{tabular}
example.

c
tsha-sa'i mi-'dug-gas minduge:

gsungs thub-kyi-mi-'dug -mindu

gas mi-'dug mindu:

c

1. rhebs-plam-la sku mnyle-po ma-
   byung-ngas madzünc;
   thag ra-po mchod-ma-song -mesü
   'phrog-rlag 'gro-gi-ma-red-pa
   -mari-

ii. mnyes-po rang gnang-mi-yong -mejü
   ge'i byas-mi-yong-ngas -mejünc:
   'don-pa'i lugs-srol mi-yong mejü:

(c) **First Syllable**

(c) **Second Syllable**

c: half-openness a (closeness + frontness) I I:

c: openness a non-closeness o

(c) openness a (closeness + backness)1 a

e.g.

c

chang 'di vag-po a-yin-na ?/I:-

I doubt whether this beer is all right

1Fast Tempo only.
I doubt whether I shall soon know it

I doubt whether they could make it

I am not sure that I have

I should not think there are many

Certain features of individual Syllables are common to both c and o exponents; if, therefore, criteria are to be established, they must be drawn from the disyllabic or trisyllabic Piece as a whole. Thus, in (a), closeness as a feature of the first Syllable \( (i_u) \) can be common to both c and o; and where that first Syllable is characterized by this feature, it becomes necessary to cite features of the second, either half-closeness (œ:) or half-openness (ε:), if the Piece is to be identified. In (b) and (c) it is as a feature of the second Syllable that closeness \( (i_u) \) is common to the exponency of both c and o term; and here it is necessary to cite features of the first Syllable, and of the third, if any. The overlap in exponency is due in part to the Fast- tempo variants of red \( (r\mathfrak{I}) \), vong \( \mathfrak{J}/\mathfrak{J} \), song \( \mathfrak{S}/\mathfrak{S} \), and myong/nyung \( \mathfrak{p}/\mathfrak{n} \).

The Interrogative Particle pas/gas/ngas/ras \( (a-b) \), the Negative Particle ma/mi \( (b) \), and the Dubitative Particle a

\(^1\)Fast Tempo only.
(c) are exemplified in both c and o Piece alike, with appropriate, and distinctive, phonetic forms in each; the remaining Verbs and Particles are exemplified exclusively in the c or the o Piece, and can be classified accordingly:

\[
\begin{align*}
\text{c-Piece} & \quad \{ \text{Verbs: } 'dug, \ yin \} \\
\text{Particles: } & \quad ' \\
\text{Verbs: } & \quad \text{red, vod, min/man, med/mad, yong, byung} \\
\text{o-Piece} & \quad \{ \text{Particles: } ' , ' , ' , ' , ' , ' , ' , ' , ' , ' , ' , \text{song, myong/nyung} \}
\end{align*}
\]

The prosodic classification of one of these Particles here is of particular interest; for it is at variance with the classification of that same Particle when exemplified in the Main- or Auxiliary-Verb type of Piece (212133). This exceptional Particle is the Perfect Particle 'dug, a member of the same sub-category of Particle as vod, shag, and med/mad, e.g. phebs tshar-'dug (the doctor) has already left (G. and R.), btang-mi-'dug-gas has it not been sent, bzhugs-'dug-gas have they been staying (cf. bzhugs-yod-pas is he at home, bzhugs-shag he is at home). The Perfect

The c Piece is indicated by the presence of 'dug and yin, which are written with the vowel letters u and i; but since u and i are also used in the c-Piece Syllables min/man and byung, these letters do not serve as a sure means of identifying a o Piece. The letters a, o, and a, on the other hand, in the of Syllables red, med/mad, vod, yong, man/min, do indicate a o Piece; and so do the Syllables min/man and byung, which share i and u with the c Piece.
Particle 'dug is to be distinguished from the Present Particle 'dug: the sub-category to which the latter belongs, together with yod and med/mad, is also colligable with the Verb within Word boundaries, but not immediately, and only when either gi/gvi/kvi or pa/ba/ga/nga/ra is also represented, e.g. tham-mag 'then-gvi-'dug he is smoking, bater-ba(ra)-'dug he would have given (Bell).

The Perfect Particle, on the other hand, is never exemplified in the same Word as gi/gvi/kvi or pa/ba/nga/ra, and is invariably immediately colligated with the Verb except in Negative Clauses, e.g. btang-mi-'dug-gas (Vb.: btang, Neg. Part.: mi, Perf. Part.: 'dug). It is only to the Perfect Particle 'dug that the following remarks apply.

The Perfect-Particle Syllable 'dug can be exemplified in either the c or the o Main/Auxiliary type of Piece, e.g. c, zhus-'dug fy:du: have served, bzhugs-'dug-gas fu:duge: is he at home; o, phebs tshar-'dug tsha:du: (not *tsh^:du:) he has already left, ga-re ga-re chag-'dug (tsh^:du:, tshagdu:) mig ltos (G. and R.) (not *tsh^:du:, *tsh^:gdu:), and is therefore classified as a c/o-Piece Particle as far as that type of Piece is concerned; but it is restricted to the c type of Particle Piece, e.g. khong-tsho bzhugs-'dug-gas -duge: are they at home (G. and R.) (not *-duge:), bsdad-'dug-gas -duge: are they at home (not *-duge:).
No other Particles have a double classification.

The Present Particle 'dug, which cannot be exemplified in a Verb/Auxiliary Piece, is classifiable only as c-Piece.

It is a little surprising that byung, both the Verb (Complement) and the Particle, should be classified as oP. Since both these lexical items are invariably characterized by closeness (u ū), one would have expected it to be classified as cP, like the Main-Verb Syllables that are similarly characterized by closeness, e.g. 'thung drink, rdung strike, 'khrung be born, or the Verb-Complement, and the Particle, Syllables 'dug; but in this respect the byung Syllables are exceptional, and have added to the complexity of the exponential statements at (a) and (b) above, because of the need to include u (closeness) in the o exponent as well as in the c, purely for the sake of byung.

The Syllables yong (both Verb and Particle), song, and myong/nyung resemble the forms byung in that they too can be characterized by closeness (u ū), but differ from them in that this feature seems to be confined to Fast-Tempo utterances. Thus, unlike the forms byung, they can also be characterized by openness (v) and half-openness (s); and it is only to be expected that they should be classified as oP, like phonetically similar Main Verbs, e.g. mthong see, tshong sell, yong come. Nevertheless, the fact that in
Fast-Tempo utterances these cP Particles can be characterized by closeness (u a), which is typically a cP feature, does have the effect of making the statement of exponency of o and c much less clear cut than it would be if these Fast-Tempo alternative features were to be omitted.

The distinction in exponency between c and o is also blurred, but regardless of Tempo in this case, by the features characterizing both the Verb-Complement and the Particle Syllables red. Like the cP Verb-Complement and Particle vin the two cP forms red are characterized in the Closure Piece by closeness (1), e.g. red-pas riβɛ: is it, with the result that there might seem to be a conflict between this feature and the half-openness (ɛ:) of the following Syllable pas/gas/ngas/rae; for one might reasonably have expected ɛ:, as in jimbe: vin-pas am I, to match the closeness (1) of the first Syllable. vin, however, is invariably characterized by closeness; while, apart from (-)red-pas (riβɛ:) and (-)red-pa (ribæ:), red is characterized by half-closeness (ɛ ɛ:). The cP feature, half-openness (ɛ:), of the second Syllable of red-pas is, therefore, not unusual; and what at first sight appears to be an irregular sequence of vocalic features for a c Piece, 1 -- ɛ:, has been accounted for.

The Closure system relates the alternation in the
exponency of the prosodic term $e$ in the three Particle Syllables $\text{pas/gas/ngas/ras}$ (cP, $e$; oP, $e$), $\text{ma/mi}$ (cP, $i$; oP, $a$, $e$), and $\text{a}$ (cP, $\Lambda$; cP, $a$).\(^1\)

\(^1\)The alternation of $a$ with $e$ in the Particle $\text{ma/mi}$ has already been dealt with (2121324, 2).
Prosodic Systems dealing with Syllable-initial Features: Aspiration

The sole prosodic system of this type, Aspiration, is mainly designed to associate such vocalic features as full voicing (V) and partial voicing (V̄) with the appropriate Syllable-initial consonant features, and, at the same time, to associate such Syllable-initial consonant features as (i) voice (g + dʒ, etc.) and voicelessness (k + tʃ, etc.), (ii) liquidity (m n n l r r j w),\(^1\) irrespective of voice and voicelessness, (iii) glottality (ʔ), and (iv) (friction + voicelessness) (s r), with the appropriate vocalic features. For example, (a) where partial voicelessness (V̄) is a vowel feature, voicelessness must also be a feature of the preceding consonant (Č), if there should be one; e.g. mthong-byung th- (alias tʃ-)

I saw, byed-thabs tʃh- (alias tʃɪ- means of doing, dgonga-pa ma tshung tʃh- (alias tʂʊ- I am sorry; (b) where voice is a feature of the initial consonant, full voicing must be a feature of the vowel; e.g. 'byor-mad-pa-no dʒo:-, -be- have you not received; (c) where (1) liquidity (+ voice or voicelessness) (m l r, etc.),

\(^1\) w is exemplified only in the suspect Verb dbang, e.g. dbang-gi-'dug wa- he is influential, which may be Literary.
(ii), glottality (\(\cdot\)), or (iii) (friction + voicelessness) (\(s \, \text{ʃ} \, t\)) is a feature of the initial consonant, then also full voicing must be a feature of the vowel \((V)\); e.g. (i) 'byor-mad-pa-no \(\text{mc}:-, \text{no}\), lhas-pa-red \(\text{le}:-, \text{re}\) he plaited; (ii) dbur-gyi-'dug \(\text{u}:-\) he is smoothing, a-yin \(\text{a}:-\) I doubt whether I am; (iii) gaunge \((s3:)\) thub-kyi-mi-'dug he cannot speak, hrob-kyi-'dug \(\text{pa}:-\) [it is gravelly]; (d) where voicelessness accompanies the friction of a Syllable-initial apical affricate, voicelessness must also accompany the occlusion \((\text{tr})\); e.g. 'khrug-gi-'dug \(\text{tr}:-\) he is quarrelling, da vag-po drag-shag \(\text{tr}:-\) he is quite better now; (e) where voice accompanies the occlusion of the Syllable-initial apical affricate, voice must also accompany the friction \((\text{dr})\); e.g. 'dmag-'khrug -dr- war, 'brel-ba-red \(\text{dr}:-\) they were connected; (f) where voicelessness is a feature of a non-syllabic vowel (semi-vowel), voicelessness must also be one of the features of the preceding consonant \((k \text{j})\); e.g. mkhyen-gyi-'dug \(k \text{j}:-\) he knows, 'dir khyer \((k \text{j}:-\) shog bring it here, kha gyes-song \(k \text{j}:-\) they separated; (g) where voice accompanies Syllable-initial velarity, voice must also be a feature of a following non-syllabic vowel \((gj)\); e.g. kun-mkhyen -\(gj\)- learned, rgyal-khrim 'gal-na \(gj\:-\) (it is not good) to transgress the law \((G. \text{ and R.})\); (h) where, in Intraverbal
Junction, voicelessness is a feature of a stop consonant, voicelessness is also a feature of the following plosive or affricate \((-ktf- -pt- -pts- -ptr-\), e.g. lhag-chad \(-ktf-\) balance, mgo-btags \(-pt-\) (st) protection, sa-bcad \(-pts-\) (st) division of work, mgo-dkrog \(-ptr-\) (st) upset.

The Aspiration system has two terms, \(h\) and \(\bar{h}\) (non-\(h\)). A separate statement of exponency has to be made for \(h\) and \(\bar{h}\) when exemplified in a monosyllabic Piece (in Interverbal Junction, i.e. when Word-initial, 2121341), from the statement made for them in the disyllabic Piece (in Intraverbal Junction, 2121342).

2121341. **Interverbal Junction**

Two statements of exponency need to be made under this heading, one for Syllables with the Juncture classification \(\hat{tr}\) (2121314, v) and also for Syllables with the Juncture classification \(k\) (2121314, iii) provided that these latter are also classified as \(y\) in terms of the Palatalization system (2121324, ky Syllables), but another for Syllables with all Juncture classifications other than \(\hat{tr}\), e.g. \(p\), \(\hat{ts}\), \(ky\), \(\hat{ky}\), (2121314, i-iv, vi-xi). Syllables of the latter type are dealt with first, at (i), and those of the former at (ii); ky Syllables therefore appear in both sections (i-ii).

The following list of exponents of \(h\) and \(\bar{h}\) in Interverbal Junction also draws attention, through the
figures '1' and '2', to correlations with the Tone-1 and Tone-2 Word (212122):

(i) initial consonant

<table>
<thead>
<tr>
<th></th>
<th>initial consonant</th>
<th>vowel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>(voicels. + plos.)</td>
<td>p t k c tʃ</td>
</tr>
<tr>
<td>1</td>
<td>(voicels. + aff.)</td>
<td>partial voicels.</td>
</tr>
</tbody>
</table>

h

1/2 (voicels. + plos./aff.) | p t k c tʃ ts |
2 (voice) | b d g j dʒ |
1 (voicels. + liq.) | l r m n ɣ j |
1/2 (voice + liq.) | l r m n ɣ j |
1 glot. | full voicing | v |

1/2 (fric. + voice) | s j |
2 nil |

(ii) occlusion

<table>
<thead>
<tr>
<th></th>
<th>occlusion</th>
<th>friction/semi-vowel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>tr kʃ</td>
</tr>
</tbody>
</table>

h

1/2 voicels | voices | tr kʃ |
- h

1 voicels. | voice | tr kʃ |
2 voice |

1 Friction is a Fast-Tempo alternative to affrication; e.g. ma tshang-bzhin sh- (alias sʰ-) it being incomplete; cf. tshang-gi-mi-'dug tsh- (alias tsʰ-) it is incomplete.

2 On w- see p. 625, n. 1.
e.g.

(1)

h khebs-na kh- (kⱷ-)

kha gyes-song ch- (cⱶ -)

sheāl-dam gcig chag-shag tʃh- (tʃⱶ -)

gə-re byed-ka tʃh- (tʃⱶ -)

shi tshar-song tʃh- (tʃⱶ -)

h bkab-song ky-

skyon (cङ: ) tshar-ra-yin-na

sue bcag-pa-red tʃa:-

mgo btsug-gi-'dug tsu:-

dga'-gyi-red ɡ^-

kha gyes-song je:-

ngas bries-shag dʒa:-

lhaa-pa-red le:-

bslebs-pa-red le:-

mig na-gi n^-

ga-nas yong-nga jo-

char-pa dbabs-pa-red ḍ شيء

vag-po bzos-song sο:-, -s5

rdzogs-shag zο:-, -ʃa

['ar-gyi-'dug] ɐ:-

'ab-kyi-'dug q-
he wrote a letter
bring my horse
they separated
he knows
I shall give
he printed
that was all right
they separated

It has already been mentioned that the exponency of ky
Syllables in Interveral Junction, e.g. mkhyen kj-/-ch-,
gyes kj-/-ch-, skyed kj-/-c-, is dealt with in both sections
(i-ii). This is because such Syllables have alternative
initial features in accordance with differences in Tempo:
in Fast-Tempo utterances (palatality + plosion) (ch-, c-, j-),
dealt with under (i), but otherwise prevelarity and a
non-syllabic spread front vowel (kj-, kj-, gj-), dealt with
under (ii). In (i) it is the syllabic vowel that alternates
according as it is contained in a h or a Ṣ Piece (V V), its
degree of voicing being a function of type of Aspiration
Piece; but in (ii) it is the non-syllabic vowel (j j) that
alternates under identical prosodic conditions, its voice-
voicelessness being a function of type of Aspiration Piece,
while its syllabic vowel is fully voiced (V) in either type
of Aspiration Piece.

The behaviour of \( \text{tr} \)-Piece Syllables resembles that of \( \text{ky} \) Syllables as described in (ii): the voicing feature of the syllabic vowel (\( V \)) is constant; but the voicelessness of the fricative part of the initial affricate of these Syllables alternates in accordance with type of Aspiration Piece: voiceless (\( \text{tr} \)) in the \( h \), but voiced in the \( h \) (\( \text{tr/} \text{dr} \)), Piece. \( \text{ky} \) Syllables, which figure in both the statements of exponency, thus form a bridge between them both, and, in doing so, provide some justification for treating the \( \text{tr} \)-Piece Syllables in terms of \( h \) and \( k \) despite the not inconsiderable phonetic difference that distinguishes their statement of exponency from that of almost all other types of Syllable.

A further justification for analysing the difference between \( \text{tr} \) and \( \text{tr/} \text{dr} \) in terms of \( h \) and \( k \) is that for Verbs with Transitive and Intransitive forms (App. VII) the \( h \) form correlates with Intransitivity and the \( k \) with Transitivity, and that this correlation holds good for at least one \( \text{tr} \) Verb just as much as for non-\( \text{tr} \) Verbs; e.g. \( \text{tr} \)

\[
\begin{align*}
\text{h kho-rang-’tsho }’\text{khrug-pa-red } & \text{tr- they were disturbed} \\
\text{dgongs-pa } \text{dkrug-pa-red} & \text{tr- he irritated them}
\end{align*}
\]
other

h chu-snod 'di khang-pa-red kʰ- this pot filled

ℎ " " bkangs-pa-red kʰ- he filled this pot

h dkar-yol 'di chag-pa-red tʃʰ- this cup broke

ℎ " " bcag-pa-red tʃʰ- he broke this cup

The correlation of Intransitivity and Transitivity with h and ℎ respectively is a further reason, a grammatical reason, for setting up the Aspiration system in addition to the grounds provided by the syntagmatically associated features.

Lexical items can be classified as h-Syllable or ℎ- Syllable (or h-Piece or ℎ-Piece). Those which are classified as ℎ can also be of any of the Juncture classifications (p, t, k, c, tᵢᵣ, tᵢs, m, n, l, s, and, but not in Verbs, q); 2121314; the classification ℎ therefore correlates with p, t, k, etc. h lexical items, on the other hand, can only be p-, t-, k-, c-, or tᵢᵣ-Piece, and tᵢs-Piece provided that they are also classified as Tone-1.

The classification h therefore correlates only with the Juncture classifications p, t, k, c, and tᵢᵣ, and with tᵢs when combined with l.

The Words containing the examples of the grammatical correlation of h and ℎ with Intransitivity and Transitivity respectively above are all Tone-1; and it well be seen
that all three have voicelessness, and affrication or plosion, as initial features (\textit{tr tr, kh k, tsh tʃ}). Voice, accompanied by plosion or affrication (\textit{b d g ǰ/gj dʒ}) is not a possible initial feature of Tone-1-Word Verbs in Interverbal Junction; in such Words, therefore, the aspiration of the h Piece (\textit{ph th kh ch/kj tʃh (t)sh}) is opposed to the non-aspiration of the \(\bar{h}\) (p t k c/kj tʃ ts), initial voicelessness being common to both types of Piece; e.g.

\textbf{Tone-1 Word}

\begin{itemize}
  \item h p \textit{rgyal-rtse-la} \textit{phebs-pas} \textit{ph-} did you come to Gyantse
  \item t mthong-ma-byun \textit{th-} I did not see
  \item k \textit{chu-snod 'di} \textit{khang-pa-red} \textit{kh-} this pot filled
  \item ky \textit{mkhyen-gyi-'dug} \textit{ch-}/\textit{kj-} he knows
  \item c \textit{mchod-ma-song} \textit{tʃh-} he did not drink
  \item Tr \textit{gzugs-po khru-vag} \textit{tr-} for washing
  \item Ts \textit{ca-lag tshong-rgyu} \textit{tsh-} goods for sale
  \item " ma tshangs-bzhin \textit{sh-} (ft) it not being complete
  \item H p \textit{gong 'di} \textit{spar-ra-red} \textit{p-} he raised the price
  \item t \textit{btang-ma-song-ngas} \textit{t-} did he not send
  \item k \textit{skol-ra-vin-pas} \textit{k-} have you boiled (Bell)
  \item Ky \textit{skyug-gi-'dug} \textit{c-}/\textit{kj-} he is being sick
  \item C \textit{shing bcad-pa-rad} \textit{tʃ-} he cut wood
  \item Tr \textit{sprad-kyi-vin} \textit{tr-} I will give
\end{itemize}
The degree of voicing of the voiced-initial plosives and affricates is, however, only partial \( (b \ d \ g \ j/gj \ dz \ dr) \), and is sometimes barely perceptible; the aspiration-non-aspiration distinction thus seems to be the more important; e.g.

Tone-2 Word

\[
\begin{align*}
\text{h} & \quad \text{babs-pa-red} & \quad \text{ph-} & \quad \text{it fell} \\
\text{t} & \quad \text{der-ba-red} & \quad \text{th-} & \quad \text{it spread} \\
\text{k} & \quad \text{gon-gyi-yin} & \quad \text{kh-} & \quad \text{I shall wear} \\
\text{ky} & \quad \text{gaas-pa-red} & \quad \text{ch/kj-} & \quad \text{it split} \\
\text{c} & \quad \text{ga-re byed-kyi-yod-pa} & \quad \text{tjh-} & \quad \text{what are you doing} \\
\text{Tr} & \quad \text{skad-cha dris-kyi-yin} & \quad \text{tr-} & \quad \text{I will ask} \\
\text{h} & \quad \text{'bar-gyi-mi-'dug} & \quad \text{b-} & \quad \text{it is not burning} \\
\text{t} & \quad \text{bsdad-pa-yin} & \quad \text{d-} & \quad \text{I stayed} \\
\text{k} & \quad \text{dga'-gyi-red} & \quad \text{g-} & \quad \text{you ought to}
\end{align*}
\]
The aspiration that is such a characteristic feature of the h Syllable in Interverbal Junction, and that distinguished the h from the ŋ monosyllabic Piece, seldom characterizes it in Intraverbal Junction; in Intraverbal Junction with a preceding Syllable both h and ŋ Syllables are characterized indifferently by initial voicing in all but a few types of Piece, with matching features for the final consonant of the preceding Syllable. The statement of exponency for h and ŋ is, accordingly, more complicated in Intraverbal than in Interverbal Junction, and, further, is apt to fluctuate in accordance with differences in Tempo.
These voicing features, and the prosodic systems that account for them, have already been fully dealt with (Juncture, 2121314); here it is only necessary to recall that voice, in both initial and final consonants of the junction (where these are present), is a feature of the p, t, k, c, ċr, ts, m, n, l, and q Juncture Pieces (2121314, i–ix, xi), while voicelessness is, correspondingly, a feature of the s Juncture Piece (2121314, x), except for Syllable-initial glottality (?), which is, of course, neither voiced nor voiceless; e.g. (p Juncture) begrigs-pa-red -i:b/-i:g/-gb- he fixed it, (ts) slab-tsang -bz- since he teaches, (t) mchod-dwogs (-ənd-) kha-po red he might possibly drink; (s) gnang-song -ā:s- he gave, skom-sa'i -ms- a scarcity too; begrigs-sa -ks- (st) place where it joins, lab-a -p'- tell him, will you. The Syllable-final voicelessness in these last two examples (g-Quality-Piece and b-Quality-Piece respectively) is a function of s Juncture in combination with Slow Tempo; Voice is appropriate to all other conditions.

In those disyllabic-Noun Pieces in which the second lexical item of the compound is classifiable as Verb the position is very much less straightforward. The voicing features of the final consonant (if any; i.e. in certain
types of g or b Quality Piece only), of the first
Syllable of the Piece, and of the initial consonant of the
second, are a function of type of Initial Piece (2121313),
type of Juncture Piece (2121314), type of Quality Piece
(2121311), type of Tempo Piece (21211), and, of particular
relevance here, type of Aspiration Piece. In stating the
exponents of h and ũ all these factors are taken into
account; but the statement is made primarily within the
framework supplied by the five types of Initial Piece (n, z,
m, b, g).

(i) g Initial Piece
The g Initial Piece does not concern the Verb; for
none of the lexical items compounded in a (disyllabic) g
Initial Piece (21213135) is a Verb lexical item.

(ii) n and m Initial Pieces
In two of the remaining four types of Initial Piece,
the n (21213131) and the m (21213133), the initial
consonants of the second Syllable have voice as a feature
regardless of whether that Syllable is h-Piece or ũ-Piece,
and so does the final consonant, if any, of a preceding
(g-Quality or b-Quality) Syllable; e.g.

- h n rtsa-'pher -mb- pulse-beat
- 'phru-1-khor -ng- magic wheel
- dmag-'khrug (g-Piece) -ndr- war
m kha-mthun
 ia-mchod
 stabs-mthun (b-Piece)
 tshogs-mchod (g-Piece)
 h n thugs-'dod
 bstan-'gyur
 tshogs-'du
 rgyab-'dre
 m dgra-'dul

-md-
-md3-
-md-
-nd3-
-nd-
-vgJ-
-nd-
-mdr-
-md-

harmony
libation of tea
[?friendly manner]
[religious gathering]

wish
Tengyur
Assembly
quarrel
subjugation

In the n or the m Initial Piece, then, the exponents of h are identical with those of h: Syllable-initial voice (and, therefore, non-aspiration) and Syllable-final voice too for preceding Syllables containing final consonants. There are, therefore, no h or h criteria, and no means of distinguishing the h from the h Piece, or vice versa.

(iii) z, or b, Initial Piece; η, n, m, ηηη Quality Piece

In certain types of z-Initial and b-Initial Piece too the h cannot be distinguished from the h Piece; i.e. the exponents of h and h are the same. This is so in the case of those examples of the z and the b Initial Piece that are also η, n, m, or r Quality Pieces. In these types of Piece the initial consonant of the second Syllable and the final consonant, if any, of the first (a final consonant is not possible in the r Piece) have voice as a feature
regardless of whether the Piece is h or ħ (cf. also (ii), the m and the n Initial Piece); e.g.

h z m rnam-thar -md- complete deliverance, biography
1 n kun-mkhyen -n¬j- all-knowing
z r gsal-byed -c:dz- [Tibetan alphabetic category]

b n shangs-phyid -nd3- handkerchief

h z r bakor-sbyong -o:dz- ambulatory
z r bar-bakor -a:g- Parkor (circuit)

z n sanga-rgyas -n¬j- Buddha
z n spyan-btsum -nz- blink

(for further, and particularly b-Piece, examples one must take Nouns in which the second is not a Verb lexical item).

Although, in such a type of Piece, the h cannot be distinguished from the ħ Piece, the ħ, on the other hand, can to some extent be distinguished from the h: all those examples of this type of Piece which are also examples of the (disyllabic) m, n, l, s, or q Juncture Piece must necessarily be ħ; for h does not correlate with m, n, l, s, or q Juncture (2121314, vii-xi); e.g.

1 From the available evidence, could equally be treated as m-Initial; and the orthography (mkhy-) supports this.
2 From the available evidence, could equally be treated as b-Initial; and the orthography (by-, bts-) supports this.
In the four remaining types of Quality Piece, the z, g, d, and b, the exponents of h are not necessarily the same as those of \( \bar{h} \). This possibility of distinguishing one type of Aspiration Piece from the other is valid regardless of whether the z, g, d, or b Quality Piece concerned is z-Initial or b-Initial; but since the exponents of h and \( \bar{h} \) vary according as the Piece is z-Initial or b-Initial, two separate statements of exponency have to be made, for the z at (iv) and for the b at (v).

(iv) z Initial Piece; z, g, d, or b Quality Piece

In those z, g, d, or b Quality Pieces which are also z-Initial, the exponent of \( \bar{h} \) is the same as it is in all the various types of Piece considered so far (i-iii); voice as an initial feature of the second Syllable of the Piece, and also as a feature of the final consonant, if any (i.e. in certain types of g or b Quality Piece), of the preceding Syllable; e.g.

\[
\bar{h} \text{ z } \text{sku-bear} \quad \text{-udz-} \quad \text{visit} \\
g \text{ mig-btsum} \quad \text{-gz-} \quad \text{blink} \\
d \text{ 'bras-spung} \quad \text{-e:b-} \quad \text{Drepung (monastery)}
\]
b chibs-bsgyur (-bgj-) gmang please go

Apart from Slow-Tempo utterances the exponent of h is also precisely the same as that of ŋ: voice initially in the second Syllable, and as a feature of the final consonant of a preceding (g-Quality-Piece or b-Quality-Piece) Syllable; e.g.

h z phyag-phebs (-ab-) gmang-byung you are welcome
g tshigs-bub (-gb-/1:b-) rgyab-pa to stumble
d khral-'bab -e:b- tax
b hab-thob -bd- scramble;
but in Slow-Tempo utterances the h Piece is distinguished from the ŋ, by voicelessness (+ non-aspiration) as an initial feature of the second Syllable, and as matching feature of the final consonant of a preceding (g-Quality-Piece or b-Quality-Piece) Syllable; e.g.

h z tshe-thar-la (-tt-) btang-ba let (animals) live
z thugs-phan -up- advantage
g lhag-chad -ktʃ- balance
b rabs-chad-ma -ptʃ- barren woman
(for d-Piece, and other, examples one must take Nouns, in which the second is not a Verb lexical item).

It is important to note that the h-Piece lexical items in these examples, thar, phan, and chad, are all also classifiable as Tone-1: in the Verbal Phrase they are
confined to Tone-1 Words (212122). Those h-Piece lexical items which are not Tone-1 but Tone-2 seem, like the \( \tilde{h} \)-Piece lexical items, always to be characterized initially by voice in the z Initial Piece, in Slow Tempo as well as in Fast, with voice as a matching feature of any preceding Syllable-final consonant (g or b Quality Piece); e.g.

\[
\begin{align*}
\text{h} & \text{ z} \quad \text{sku-drag} & \text{udr} & \text{Official} \\
\text{z} & \text{ thugs-dran} & \text{udr} & \text{memory} \\
\text{z} & \text{ thugs-brel} & \text{udr} & \text{busyness} \\
\text{g} & \text{ gug-gug} & (-u:g-) & \text{byed-pa} \quad \text{bow with reverence}
\end{align*}
\]

(for d-Quality, b-Quality, and other, examples one must take Nouns in which the second is not a Verb lexical item.

Thus, it is only in Slow Tempo, and even then only within the limits of Tone classification, that the \( h \) can be distinguished from the \( \tilde{h} \) Piece. On the other hand, since \( h \) does not correlate with the Juncture terms m, n, l, s, and q, such n-Juncture, l-Juncture, and s-Juncture examples as the following must necessarily be \( \tilde{h} \):

\[
\begin{align*}
\text{h n g} & \quad \text{sdug-bsgal} & \text{udn} & \text{misery} \\
\text{n d} & \quad \text{spyod-nyes} & \text{e:n} & \text{[?evil deed]} \\
\text{l z} & \quad \text{bka'-slob} & \text{al} & \text{exhortation} \\
\text{s b} & \quad \text{chibs-gzhol} & (-pj-) & \text{gnang-na} \quad \text{you ought to dismount}
\end{align*}
\]

(\( v \) b Initial Piece; z, g, d, or b Quality Piece

Just as, in the types of example considered in the
preceding section (iv), so too, in examples that are also
z-, g-, d-, or b-Quality but differ in being b-Initial,
two separate statements have to be for h and ð according
as the second Syllable of the Piece is tonally classifiable
as Tone-1-Word or as Tone-2-Word. In the case of the
Tone-1-Word classification the second Syllable of the Piece
is characterized initially by voicelessness and, in the sole
eample in the thesis material, by non-aspiration, with
voice as a Fast-Tempo alternative; e.g.

h z  zn-phüid -ptʃ-/ (ft)-bdʒ-  handkerchief;

but prosodically corresponding examples containing Noun
lexical items as second Syllable suggest that in this type
of Piece the second Syllable can also be characterized
initially by aspiration, though only in Slow-Tempo
utterances, usually with matching voice or voicelessness as
final-consonant features of a preceding g-Quality or
b-Quality Syllable; e.g. bzhész-thus -ipth-(st)/-ipt-
buttermilk, wa-phrug -ptr-(st)/-ptr- fox-cub, ra-phrug
-ptr-/ (ft)-bdɾ- kid, lug-phrug -ktr-/ (ft)-gdr- lamb.

Where, however, the second Syllable of the h Piece is
Tone-2-Word, it is invariably characterized initially by
voice; e.g.
there are in the available material no examples containing a final consonant in the first Syllable of the Piece. Where the second Syllable of the H Piece is classifiable as Tone-2-Word, that Syllable too is invariably characterized by voice, with voice as a matching feature of the final consonant of a preceding g-Quality or b-Quality Syllable; e.g.

h z lha-bris-pa -br- painter
z sa-bris -br- ??;

where, however, the second-Syllable lexical item is a Tone-1-Word Verb, that Syllable is characterized initially by non-aspiration, together with voicelessness, but with voice as a Fast-Tempo alternative; and a final consonant in a preceding (g-Quality or b-Quality) Syllable generally has matching features; e.g.

1Thought to be a spelling pronunciation: one would expect kugd:

fisherman
to scold
\[ bzo\text{-}blta \quad \text{opt} \] appearance
\[ sa\text{-}bcad \quad \text{abtj}-(ft)-\text{abd}z \] division of work
\[ mgo\text{-}dkrog \quad \text{optr}-(ft)-\text{obdr} \] everything was upset (G. and \( \& \))
\[ lha\text{-}btsug \quad \text{pt}(t)s \] [?].

To summarize, where they are tonally classifiable as Tone-2, both \( h \) and \( \bar{h} \) Verbs are characterized initially by Voice as second Syllable in this type of Piece; and the voicing features give no clue towards identifying them or the Pieces containing them; but where the second Syllable is a Tone-1 Verb, \( h \) Syllables, and the disyllabic Pieces containing them, are thought to be distinguished from \( \bar{h} \), though only in Slow Tempo, by aspiration. On the other hand, since \( h \) does not correlate with \( n \), \( l \), or \( s \) Juncture, such examples as the following must necessarily by \( \bar{h} \):

\[ n \quad \text{khyi-smyo-ba} \quad \text{imp} \] mad dog
\[ n \quad \text{ko-mnyed-pa} \quad \text{omn} \] tanner
\[ s \quad \text{kha bshal-bshal (c:\( e \))} \] to rinse the mouth
\[ s \quad \text{chibs-bsu-ba} \quad \text{ips} \] luggage.

Part of the function of the Aspiration system, in Intraverbal Junction, is to account for variation in the

\[ 1 \text{ But } \text{khra-bcad } \text{adz} \] (not \( \#\text{-aptj}-(ft)-\text{abd}z \)) appears to be \( z \)-Initial.
voicing of final consonants in the g and the b Quality Piece. Although, in the n and in the m Initial Pieces, and in the z Initial Piece except in Slow Tempo, these Consonants have voice as a feature in h and 𐀒 alike, in the z Initial Piece in Slow Tempo they have voicelessness in the h and voice in the 𐀒 Piece; and their voicing features are a function of the Aspiration Piece; e.g.

\[
\begin{align*}
\text{h g} & \quad \text{lhag-chad} & \quad -k- & \quad \text{balance} \\
\text{b} & \quad \text{rabs-chad-ma} & \quad -p- & \quad \text{barren woman} \\
\text{h g} & \quad \text{mig-btsum} & \quad -g- & \quad \text{blink} \\
\text{b} & \quad \text{chibs-bsgyur} & \quad -b- & \quad \text{going.}
\end{align*}
\]

The voicelessness seems, however, to be appropriate only to those h Pieces in which the second Syllable is classifiable as Tone-1; where it is classifiable as Tone-2, voice seems to be the appropriate Syllable-final consonant feature; e.g. \text{tshigs-bub} -g-.

The Aspiration system also helps to account for alternation in Syllable-initial voicing. In the z Initial Piece in Slow Tempo, provided that that Piece is also z-, g-, d-, or b-Quality, initial voicelessness (and non-aspiration) is appropriate to a h-Piece Syllable, if also Tone-1, but voice to a 𐀒, and to a h too if also classifiable as Tone-2; e.g.
Phonematic Systems

The Aspiration system is the last of the prosodic systems to be stated for the Verbal Phrase, and for Verb lexical items outside the Verbal Phrase (in disyllabic Nouns); the only statements that remain to be made are phonematic. Before stating the phonematic systems of Verb and Verbal-Particle Syllables a few remarks are necessary about the effect that the considerable number of the prosodic systems, and the extent of the Clauses, Words, and Pieces to which they refer, has had on phonematic statement.

Almost all of the prosodic systems relate to polysyllabic stretches of material. Tempo (21211) is stated with reference to utterances, Intonation (21212) with reference to Clauses, Tone (21212) and Junction (1) with reference to Words, and the Quantity (2121312), Initial (2121313), Juncture (2121314), Labialization (2121321), Palatalization (2121324), Closure (212133), and Aspiration (212134)
systems with reference to polysyllabic Pieces, though four of these, the Quantity, Labialization, Palatalization, and Aspiration systems apply to monosyllabic as well as to polysyllabic Pieces. The only prosodic systems to apply solely to monosyllabic Pieces (or Syllables) are the Fronting (2121322) and the Rounding (2121323) systems.

21221. G- Systems

One of the effects of the polysyllabic-Piece systems is that Syllables are classified in accordance with the type of Piece in which they are exemplified, as first or as second Syllable of a disyllabic Piece, and, in the case of Verbs, also in accordance with the Tone type of the Word to which each is restricted. Verbs have been classified as Tone-1-Word or as Tone-2-Word; both Verbs and Particles have, for example, been classified in terms of the Initial system, as n-Piece or z-Piece, and also as m-Piece and as b-Piece for Verbs; both Verbs and Particles have been classified in terms of the Juncture system, as p-, t-, k-, c-, tr-, ts-, m-, n-, l-, s-, or q-Piece, and in terms of the Labialization system, as y-Piece, as e-Piece, or as w-Piece. As a result many Syllables are so closely defined prosodically, each in terms of a number of prosodic systems, that little room is left within each type of Syllable so
defined for paradigmatic contrast, and therefore for phonematic statement. A verb Syllable classified as, for example, Tone-1-Word, as p-Juncture-Piece, and as h-Aspiration-Piece, e.g. *phul* (*ph-/b-*), offers no possibility of lexically distinctive contrast in initial consonants.

If, therefore, a C-system were set up for this, the lph, prosodic type of Syllable, it could only be one-term: \( lphC^1 \).

One-term C- systems are not a monopoly of the p-Juncture-Piece type of Syllable: t-, k-, c-, \( \text{t}^\text{r}- \), \( \text{t}^\text{s}- \), m-, and q-Juncture-Piece Syllables resemble it in this respect.

Only Syllables classified in terms of the Juncture system as n-Piece (n-, \( n^- \), \( n^- \)), l-Piece (l-, r-, j-, w-, \( l^1 \), \( l^2 \), \( r^- \)), and as s-Piece (2121314, viii, ix, x) offer the possibility of lexically distinctive contrast in initial consonants. This contrast is, however, reduced by the Palatalization system, which associates initial palatality, or non-palatality, with appropriate vowel features (2121324):

\[
\begin{array}{cccc}
\text{n} & \text{l} & \text{s} \\
\text{y} & \text{j} & \text{s} \\
\text{y} & \text{j} & \text{s}
\end{array}
\]

When Syllables of the n, l, and s Juncture classifications

\footnote{Exemplified only in the Verb *dbang*, which is suspected of not being LT.}
have been further classified in accordance with the Palatalization system, only one-term C- systems could be stated for those of them which are v (nyC\textsuperscript{1}- j-, lyc\textsuperscript{1}- j-, syC\textsuperscript{1}- j-); but multi-term systems could be stated for the \textit{v}.

For ny\textit{y} Syllables a two-term system, N and D, can be stated; the exponents of these terms are:

\textit{ny}: N: dentality \textit{n} \quad D: \textit{ez}: velarity/palatality \textit{ŋ/ŋ}

other: velarity \textit{n}.

Examples of N can be drawn from both Verbs and Particles; but there are no examples of Particles in D, which is in any case rare.

For e-Piece Verbs that are also z Quality-Piece D has two exponents, one, velarity (\textit{ŋ}), for the s Quantity Piece (2121312), and the other, palatality (\textit{ŋ}), for the l (it is only for the z Quality Piece that the Quantity system is statable); for D- Verbs of all other prosodic classifications the exponent of D is velarity only; e.g.

D \textit{ez s} btsaa-ma rnga-gi-’dug

l  \quad “ brngas-yong

æg bang-chan mngags-yod

wz s nae rngo-gi-’dug

\textit{ŋ}— they are harvesting

\textit{ŋ}— they harvest

\textit{ŋ}— I have dispatched a messenger

\textit{ŋ}— they are roasting barley
The Labialization classification (ə, w) and the Juncture classification of the above examples have been included because the ny phonematic system is not statable for y Labialization-Piece Syllables (212132111) or for those ə-Piece Syllables which are also d or n Quality-Piece (2121311) or f-Piece (Fronting, 2121322): initial velar nasality does not contrast with dental nasal in these types of Syllable.

N is regularly indicated in the orthography by n, and η by ng.

For 1 Juncture-Piece Syllables (2121314, ix) that are also ˠ (Palatalization) and, if Verbal, Tone-2-Word (2W), a two-term C-system can be stated: L, R. The exponents of these two terms are:

L: lateral stricture 1; R: friction r.

e.g.

2W L (Vb.) len-pa-red
   (" ) lang-song
(Part.) bsdad-long (-1-) med

l- he took
l- he got up
I have no time to stay
2W R (Vb.) la red r- yes, it is

( " ) rag-byung-ngas r- did you get

(Part.) gnang-rog ( -r- ) gnang please give it

As far as the 2W Verb is concerned, the L term is regularly indicated in the orthography by l-, and the R by r-; and this is also the case for Particle lexical items.

In 1-Piece Syllables that differ from the above only in that they are Tone-1-Word (1W), however, there is at first sight at least a fourfold phonetic contrast: l-, r-, l-, r-; and these four initial sounds, being in prosodically comparable Syllables, would require a four-term C-system: L, R, LH, RH (LH and RH being digraphs for single Phonematic Units). The phonetic exponents of each of these four terms would, then, be:

L: (lateral stricture + voice)

LH: ( " " + voicelessness)

R: (friction + voice)

RH: ( " + voicelessness); e.g.

1W L (Vb.) klog-gi-'dug l- he is reading

( ) blang-song l- he got it up

R (" ) dbral-shag (also hral-) r- he tore it

1For a fifth possibility, inw-, see p. 649, note 1.
LH (Vb.) sle-gi-'dug (also lhe-) 1- he plaits it
     lhag-pa-red
     1- it remained over
RH (" ) hrob-kvi-'dug
     r- [? it is gravelly]

Correspondingly, as far as the 1W Verb is concerned, the
L term is regularly indicated in the orthography by la-btags
(kl-, bl-, brl-, sl-), and by the la-mgo lh-, the LH by sl/lh-
and lh-, the R by dbra-, and the RH by hr-.

It would of course follow, further, that the phonemantic
units L and R of this four-term (1W) system could not be
identified with the identically symbolized units L and R of
the two-term (2W) system stated above as applicable to
Tone-2-Word Verbs. Not to be able to make this identification
would be a disadvantage, because the 2W example of R, ral
'tear, get torn', and the 1W example of R, dbral (or hral)
'tear, make torn', could usefully be identified, thus making
it possible for ral and dbral to be treated as two forms, a
Tone-1-Word and a Tone-2-Word, of a single Verb in R-, the 1W
form being appropriate to the Transitive Clause, and the 2W
form to the Intransitive. It would also be useful to be able
to make a corresponding statement for what have thus far been
treated as two separate Verbs in L-, lang (2W) 'get up, rise',
and blang (1W) 'lift up, raise' (and perhaps, too, for the 2W
Verb lab 'speak, tell', and the 1W Verb slob/bslabs 'teach,
learn'), that the initial phonemantic unit be the same for
both (L), and that the 1W and 2W forms correlate respectively with Transitivity and Intransitivity of the Clause; but neither of these two statements is possible as long as each L and each R has a different systemic value from the other, with one L commuting only with R (and vice versa), in the 2-term system, but the other commuting with R, LH, and RH, in the 4-term system.

On the other hand it cannot but be admitted that, in the available material, the support for associating transitive and intransitive forms, in this way, with an initial phonematic unit being common to them both, is clearly scanty; and it may well be that attempting to force the I-Piece Verbs into this mould gives undue prominence to a little exploited phonological feature of the dialect; in which case, the L's of the two phonematic systems, and the R's, should be allowed to remain distinct (though the phonetic identity of the features l- and r- associated with each makes it convenient for them to share the symbols L and R).

However, the equal status of LH and RH with the L and the R of the 4-term system is not as sure as it might be: (i) the sole Verb example of RH, hrobd (r_o), is rare, and possibly onomatopoeic; (ii) of the only two Verb examples of LH, sle/le/le, lhas, 'plait', and lhag 'remain over, be surplus', the former has voice (l) as an
alternative initial feature to voicelessness, *sie/lhe-gi-'dug* 「l/lɬ-」 'he plaits', *lhas-pa-red* 「l/lɛː-」 'he plaited', and the latter seems to have a literary flavour. If, therefore, for any of these reasons, these three somewhat suspect examples were removed from the phonematic categories LH and RH, only the two terms L and R would then remain, as a 2-term system (1W), the phonetic exponents of each of which would then be given precisely the same statement as each of the two terms L and R of the 2W phonematic system (p. 651):

L: lateral stricture  \( l \); R: friction  \( r \).

There would then be no difficulty over identifying the L's and the R's in the two systems, or over treating as tonally distinguished forms (1W, 2W) of a single Verb the pairs of Verbs associated on pages 653-4 above.

Corresponding systemic problems would, of course, arise if the Verb *dbang* (w-) 'be influential' mentioned on page 649 (note 1) above were admitted on the same terms as the controversial LH- and RH- Verbs above, as an example, the sole example, of a further 1W phonematic unit (W-).

For s-Juncture-Piece Syllables that are also \( \overline{v} \) (Palatalization) a two-term system could be set up. It
would certainly be valid for the w-Piece Syllable and for those ə-Piece Syllables which are also z-, g-, η-, b- or m-Quality (312131) or r-Quality and ʃ 2121322) (cf. also N and L, p. 651 above); but, since there are no Verb examples of ə- in y-Piece (Labialization) Syllables or ə-Piece that are also d- or n-Juncture, or f (though there are Noun examples), it is doubtful whether it applies to them. The two terms of the system are S and Q; and their exponents are:

$$S: (\text{alveolar clarity + coronal clarity + friction + voicelessness})$$

$$Q: (\text{glottal + plosion})$$

\[e.g.\]

S (Vb.) ga-re gaung-qi-duced $s$ - what is he saying

" vag-po bzoe-song $s$ - he did it well

(Part.) "$" "$" "$"

" 'gro-sa (-ə-) mi-duced $s$ - there is no way

Q (Vb.) char-pe dbabs-pa-red $' - the rain [pattered]

" snag-tshe dbur-gyi-duced $' - he is mixing ink

(Part.) vag-po shes-kyi-a-yod $' - I do not think I do

know it well

" bzhuge-gdan 'lag-a $' - do sit down.

If this system were treated as not valid for the y-Piece (Labialization) Syllable, y-Piece examples of $s$-,
e.g. bsil-ra-red s- it got cold, zer-ba-red s- he said, could not be treated as examples of S; for there would be no Q in that type of Syllable to commute with it. The features (alveolarity + coronality) (s) would then have to be treated as the exponent of a single initial C unit (if such a unit were recognized; cf. pp. 659-64).

S is generally indicated in the orthography by s and by z, while Q is indicated by ūb- and by ūn-, which is transliterated by absence of any of the initial-consonant symbols.

21222. V Systems

The possibilities of setting up V systems are restricted in much the same way as they are for C- systems. Here, it is the Quality (2121311; z-, g-, n-, d-, n-, m-, and r-Piece), Labialization (2121321; y-, s-, and w-Piece), and Closure (212133; c-Piece and c/oPiece, or, simply, c-Piece) prosodic systems that define Syllables so closely as to reduce the possibility of paradigmatic contrast within each prosodic type of Syllable to nil for all Verb Syllables other than those which are both r-Piece (Quality) and w-Piece (Labialization). Two-term systems could be established, for Syllables such as these, one for the c-Piece

1 Cf. p. 601, n. 1.
(Closure) Syllables, the two terms being U and Y, and one for the c/o-Piece (α o-Piece), the two terms of which are 0 and Ø. The exponents of these terms are:

c  U: backness  u:/u  Y: frontness  y:/y

for the c/o-Piece (~o-Piece), the two terms of which are

c/o 0:  "  c:/œ  Ø:  "  y:, Ø:/œ;

e.g.

U  skur-gyi-'dug  u:-  bskur-ba-red  u:/-u-  he is sending, he
sent

sdur-gyi-'dug  "  bsdur-ba-red  "  he is comparing, he compared

Y  phul-gyi-'dug  y:-  phul-ba-red  y:-/-y-  he is offering, he offered

Y  byor-gyi-'dug  o:-  'byor-ba-red  o:-/-p-  he is receiving, he received

shor-gyi-'dug  "  shor-ba-red  "  he is slipping into, he slipped into

Ø  skol-gyi-'dug  y:-  bakol-ba-red  ø:-/-ø-  he is boiling, he
boiled

bcol-ba-red  "  he entrusted

The U and the 0 terms are regularly indicated in the orthography by u and o respectively when followed immediately by n, and the Y and the Ø terms by y and Ø respectively when immediately followed by l.

For all other types of Syllable, z, g, ç, d, n, and m Quality-Piece and those r-Piece Syllables which are also y or e Labialization-Piece, a one-term system is the only
type of V system that could be set up.

21223. **-C Systems**

As regards -C systems the eight-term Quality system results in the classification of Verb and Particle Syllables as z-, g-, η-, d-, n-, b-, m-, or r-Piece (there are, fortuitously, no examples of r-Piece Particles); and, since no lexically distinctive contrast is possible in final consonants for Syllables of any of these eight types, such -C systems as could be set up would have to be one-term. These would be for the g, the η, the n, the m, and the r Quality-Piece Syllable, each of which can, under certain conditions, be characterized by final consonantal features.

21224. **Comment**

With few exceptions, (nyC²-, lyC², cwrv², owrv²), then, the phonematic systems set up for LT would have to be one-term. If however, the term system were so defined that commutation was one of its criteria, then, clearly, the term system could not be applied to what have hitherto been called one-term systems; for their single terms do not commute. This definition would not exclude the possibility of recognizing single C and V phonematic units, in the appropriate prosodic types of Syllable; but it would deny them the designation system. The phonematic part of the phonological statement would then consist of (i) phonematic
systems, e.g. \( \mathcal{C}^2, \mathcal{V}^2 \), and (ii) single phonematic units \((\mathcal{C}^1, \mathcal{V}^1, -\mathcal{O}^1)\).

There are, however, arguments against recognizing single phonematic units, whether or not they are termed one-term systems. One such objection is that it unnecessarily duplicates statements already made in the prosodic part of the phonological analysis: the features that might reasonably be attributed to one of the single phonematic units have already been attributed to the Syllable that these features characterize in the course of stating prosodic systems for the Word (21212) and for polysyllabic and monosyllabic Pieces within the Word (21213). In other words passages would need to be extracted from the statements of exponency of the terms of the prosodic systems, and repeated for the benefit of the single C and V units.

A further objection is that it is not easy to know what features to state as exponents of, for example, single C units. In some examples there appears at first sight to be no difficulty: Thus, for example, in the first Syllable of sug'bere gzigs-pa-red he saw, (velarity + occlusion + voice) \((g')\) as exponent of the sole -C term of this g-Quality-Piece Syllable, (velarity + nasality) \((\eta)\) for the sole -C term of the first, and \(\eta\)-Quality-Piece, Syllable of naq'bere gnang-ba-red he gave, and (alveolar
+ friction + apicality) (r) for the sole -C term of the first, and r-Quality-Piece, Syllable of ꞔꔹ他也 moved;¹ but in the alternative pronunciations of gzigs-pa-red as si:běre, and the alternative pronunciation of bsgyur-ba-red as ju:běre, and the pronunciation of gnang in gnang-song nā:s5, there are no final-consonant features in the first Syllable. Either, then, (i) two different statements of Syllable structure would have to be made for each of these three lexical items, gzigs, gnang, and bsgyur, one with a -C term, its exponents being drawn from ぎ, ぎ, and ぎ respectively, and the other without a -C term, the exponents of its V term being drawn from い, あ:, and う: respectively, or (ii) the exponents of the terms -C would be stated as phonetic nil wherever there were no consonant features to state, or (iii) some of the features of the vowels い:, あ:, and う: would have to be stated as exponents, appropriate to certain prosodic conditions, of each of the respective -C terms.

The first of these possible solutions would be highly inconvenient: probably a clear majority of lexical items in the language would have to have two syllable structures; and a third possible phonetic form for gzigs-pa-red, si:gare, with long vowel duration and velar plosion, would probably make three separate statements of syllable structure.

¹ In 21224 a more detailed transcription has been used, in which ｔ is distinguished from だ, あ from あ, え from え, and お from お.
necessary for this and all other g-Quality-Piece Verbs.

The second possible solution also rests on the assumption that vocalic features cannot be stated as exponential features of C units. It would result in the widespread use of phonetic nil as exponent of the -C unit of g-Piece, η-Piece, n-Piece, and r-Piece Syllables. It would in fact be certainly the commonest exponent of r-Piece -C, probably the commonest exponent of g-Piece -C, and possibly the commonest exponent of η-Piece and of n-Piece -C. It is questionable whether it is worthwhile to establish -C units simply in order to be able to state phonetic nil, in itself a dubious concept, as their commonest exponent.¹

The third possible solution would be to state as exponents of the -C term, of gzigs, for example, not only the consonantal features suggested above (g'), as in sig'bere, but also (velarity + plosion, g), as in si:gere, and, presumably, some of the vocalic features of the first Syllable of si:bere, possibly those which distinguish si:- from sig': long duration and comparative closeness and backness. Similar treatment would then have to be given

¹ Nil would be indiscernible at the phonetic level without prior phonological information.
to bṣgyur: the exponents of the -C unit would be those stated above (alveolarity + friction + apicality, r) in Fast-Tempo utterances, but otherwise long vowel duration (ː), and the relative closeness and backness of u, in ĝu:bere, as compared with ʊ, in ĝore. The exponent of the sole -C unit of gnang would be, similarly, (velarity + nasality), ɳ) for examples such as naŋbere, or naŋere, gnang-ba-red he gave, but, perhaps, such vocalic features as nasality, long duration, and relative backness in nɑːsɔ gnang-song he gave.

The difficulty over allotting vocalic features to lone -C units is that it is difficult to know, in the absence of contrasting -C units, what vocalic features to extract for this purpose, and where to draw the line. What features, consonantal or vocalic, of e.g. sɪg'bere, sɪ:ɡære, and sɪːbere, the three phonetic forms associated with gzigs-pa-red he saw, are to be stated as exponents of the final C? Clearly (velarity + occlusion, ɡ') and (velarity + plosion, ɡ) are acceptable for this purpose; but which vocalic features are to be drawn from sɪːbere? If long duration and relative closeness and frontness as compared with sɪɡ' are taken as exponents of -C in the case of sɪːbere, why should they not also be taken in the case of sɪ:ɡære, in addition to (velarity + plosion ɡ)? If these vocalic
features are extracted from /si:bəːrə/ and /si:ɡərə/, why should not the contrasting features short duration and relative centrality, which are associated with /ɡ/, be extracted from /siɡ'ə/? The vowels /i:/ and /t/ would then be largely stripped of features.

No such difficulties arise where phonematic units are not single but terms of commutation systems; for their exponents are those features only which distinguish the one commutable from the other or others, e.g. backness versus frontness (/U/ versus /Y/, and /o/ versus /Ø/; p. 658), laterality versus friction (/L/ versus /R/; p. 651), and dentality versus velarity or velarity/palatality (/N/ versus /D/; p. 650).

There would seem, then, to be advantages in recognizing phonematic units only where systems, of commutables, can be established; in which case the only phonematic units recognized would be those on pp. 650-58: /N/ and /D/, /L/ and /R/, /S/ and /Q/, /U/ and /Y/, and /O/ and /Ø/; there would be no single phonematic units (alias one-term systems).
APPENDIX I

TRANSLITERATION, PHONETIC TRANSCRIPTION, AND TRANSLATION

Transliteration

The system of transliteration used in the thesis is a slightly modified version of the one that was adopted for the Linguistic Survey of India (Calcutta, 1909):

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When prefixed by ར ཤ (g) ར is transliterated by ར, e.g. ར (g\textnu), in order to avoid confusion with ར (gy), e.g. ར (gy). This practice follows R. de Nebesky-Wojkowicz, Oracles and Demons of Tibet, ('s-Gravenhage, 1956); cf. also Turrell Wylie, 'A standard system of Tibetan transcription', HJAS, 22 (1959), 261-7.

In the above table a transliteration into the Roman script has been set beside Tibetan forms in the dbu-can script; for this is the Tibetan script that is most familiar to foreigners. In Tibet however this script is normally used only in printing; and only one of the hand-written texts used as sources of examples for the thesis is written
in it. R.'s only reason for using the dbu-can script in this text was that at that time it was the only Tibetan script that I knew. The remaining hand-written texts are in dbu-med scripts, the body of the text in 'khyug-vig and the title in bru-tsha.

In the dbu-med texts a number of contractions occur, e.g. chu-tshod (\textit{\textcircled{b}}), 'o'clock'; rin-po che (\textit{\textcircled{b}}), 'Reverend'; vi-ge (\textit{\textcircled{b}}), 'letter'; but the uncontracted form has been used for the transliteration.

The punctuation of the hand-written texts comprises two symbols, the tsheg (\textit{\textcircled{b}}) and the shad (\textit{\textcircled{s}}), and the presence or absence of a space between (orthographic) syllables. The tsheg marks the end of the orthographic syllable, and, except for contractions, no orthographic syllable is without it; the shad marks the end of a text; space marks the end of clauses and sentences, but is not used consistently: there are examples of both clauses and sentences where the end of the clause or sentence is not spaced off from

\footnote{The institutionalized syllable of Tibetan orthography does not always correspond to the syllable established in the thesis for the phonological analysis of LT; and e.g. the orthographic monosyllables ga'u, kh\textsuperscript{a}u, 'little g', charm-box', di'i, /di:, 'of this', and kho'i, kh\textsuperscript{e}:, 'of him', are here treated phonologically as disyllabic.}
the following clause.

The transliteration however does not follow the Tibetan text in this inconsistency: end of clause and end of sentence are in all cases indicated, whether or not these have been spaced off in the Tibetan text. Further, a distinction in punctuation has been introduced in the transliteration through the use of a comma to indicate end of clause, and a full stop to indicate end of sentence, though there is no warrant for any such distinction in the Tibetan orthography.

A further departure from Tibetan orthographic practice is the use of two different symbols for transliterating the *tsheg*: a space where the *tsheg* coincides with a Word boundary, and a hyphen where it does not. Thus the transliteration of the Tibetan text indicates Word boundaries; but the original, in the Tibetan script, does not.

The modifications in the punctuation of the Tibetan text in its Romanized form have been introduced for the sake of easier comparison of the three parts into which most of the examples fall: phonetic transcription, transliteration into the Roman script, translation (or translation meaning).
**Phonetic Transcription**

The punctuation of the phonetic transcription is parallel to that used in the transliteration, and is in black ink to distinguish it from the phonetic symbols, which are indicated by red ink.

The phonetic symbols have the values assigned to them by the International Phonetic Association, but with the following few changes, which have been introduced as being typographically more convenient:

I. friction in which the dorsal area of the tongue and the alveolar ridge and forward area of the hard palate are concerned is symbolized by \( \tilde{\mathbf{s}} \) (I.P.A. \( \tilde{s} \));

II. affrication with dorsal contact and the same localization as for \( \tilde{\mathbf{s}} \) is symbolized by \( t\tilde{\mathbf{s}}, t\tilde{\mathbf{sh}}, d\tilde{\mathbf{z}} \) (I.P.A. \( t\tilde{s}, t\tilde{sh}, d\tilde{z} \));

III. in general \( r \) symbolizes friction with alveolar localization (I.P.A. \( \mathbf{r} \)); but in the very few paragraphs where it is necessary to distinguish alveolar friction (I.P.A. \( \tilde{\mathbf{r}} \)) from a rolled articulation with alveolar localization (I.P.A. \( \mathbf{r} \)), e.g. p. 24, \( \tilde{\mathbf{r}} \) and \( \mathbf{r} \) have their I.P.A. values, this special use of \( \tilde{\mathbf{r}} \) and \( \mathbf{r} \) being indicated by footnote.

IV. an alveolar lateral with clear (palatal) timbre has been symbolized by \( \tilde{l} \) (p. 32).
Where the I.P.A. symbols are ambiguous, as in the case of \( t, d, \) and \( n \), the usage of the thesis is as follows:

I. \( tr, t, dr, n, nz \): alveolar (I.P.A. \( t \dd n \))

II. \( t, d, n, nd \): dental (I.P.A. \( t, d, n \)).

It has sometimes been necessary to introduce additional symbols, where, for example, a particular phonetic feature has no I.P.A. symbol. Thus I have followed Eugénie J.A. Henderson in using (') to symbolize closure without audible release, e.g. \( p', t', ?, \). ¹ Pause is indicated by ---; and whisper by underlining, e.g. \( ne \). 'C' symbolizes a consonant, 'V' a vowel, 'P' a plosive, 'N' a nasal, 'F' a fricative, 'L' a liquid (\( l, r, j \)), and 'S' a sibilant (\( s, f \)) or glottal plosive (\( ? \)).

As regards the degree to which phonetic detail is symbolized, the phonetic transcription shows the minimum. Thus \( i \) is distinguished from \( i, a \) from \( u, a \) from \( a, v \) from \( o, \) and \( e \) from \( e \) only where this degree of phonetic detail makes a contribution to the argument at that point; otherwise \( i, u, a : /\alpha : \), and \( o : /\bar{o} : \) represent I.P.A. \( i, u, a : /\alpha : \), and \( o : /\bar{o} : \) respectively, while \( u /\dd U, a, \) and \( o, \) and \( i /I(\dd) \), represent I.P.A. \( a, a, D, \) and \( i /I(\dd) \) respectively; and, further, ¹Eugénie J.A. Henderson, 'Prosodies in Siamese', *Asia Major*, 1, Pt. 2, 190.
pitch marks, which add considerably to the complications of a transcription, and decrease its legibility, are shown only where they are essential. Parts of the thesis in which a more detailed transcription has been used are indicated by footnote.

**Translation**

Where an example has been taken from the text of one of the unscripted recordings (see Appendix II, pp. 672-5), the translation takes into account all relevant situational factors, and attempts a stylistically suitable English version of the Tibetan; where the source of the example is a published work, the translation given is that of the original, and is acknowledged as such (see Appendix II, p. 676); where the example is from some other source (usually from field notes), a translation meaning is offered, i.e. one of a number of possible translations, from which it is impossible to choose one in preference to the others without a knowledge of the relevant situational factors.
APPENDIX II

LT TEXTS

As far as possible, examples are taken from the texts of recorded material rather than from field notes. The most satisfactory of these texts are those which were written down subsequently from free, or unscripted, recordings; for such recordings are much less influenced in pronunciation and vocabulary by Classical Tibetan (cf. also pp. 14-26, Reading and Spelling Styles) than those which were read from a written or printed text.

Texts from Unscripted Recordings

The most useful texts, and the primary source of examples, are therefore those taken from five recordings made on wire in Kalimpong (1950). The texts were written down by my servant, dpal-'byor phun-tshogs (R), an educated Tibetan of noble family, (Tsharong, tsha-rong), from repeated play-backs. These five texts are: 1

I. sku-zhabs rigs-dbang lags dang mthar-phvin sba-bu
   lags-kyi 1cam-chung a-ba byu lags bcas-kyi bka'-mol bchod-par
dge'q; 'Recording of a Conversation between Mr. Rigwang,

1 Four long LT texts were also written down from unscripted recordings made in Gyantse, Tsang Province, Tibet, in the same year; but, since R. had no part in these, and the thesis is restricted to an account of his form of LT, these texts are not relevant here.
Mrs. Tharchin, and her son; (The Rev. Mr. G. Tharchin, of Kalimpong, is R.'s uncle). The three speakers discuss conditions and prospects in the printing trade (the Rev. Mr. Tharchin edits and prints the Tibetan newspaper, yul-phyogs so-so'i gaarg-'gyur me-long), R.'s work as a teacher of Tibetan, and the education and future of the Tharchins' son.

II. sku-zhabs rigs-dbang lags dang mthar-phyin sba-bu lags-kyi drung-vig lags lhan-gnyis-kyi gsung-mol dge'o; 'A Conversation between Mr. Rigwang and Tharchin Babu's Compositor'. In answer to R.'s questions the compositor introduces himself, and describes the various articles of printing machinery, and the different processes used in printing. They then discuss local and Tibetan news.

III. sku-zhabs rigs-'dzin dbang-po lags dang byams-pa gsang-mdal lags lhan-gnyis-kyi bka'-mol bkod-par dge'o; 'Recording of a Conversation between Mr. Rinzin Wangpo and Champa Sangda'. (Champa Sangda was at one time choir-master to the former Regent of Tibet, the late Reting Rimpoche - (rwa-sgreng rin-po che), and is accounted one of the two best exponents of Tibetan classical music - gsung-rnyams, or rnyams-thar. At the time of recording he was acting as Dr. G. de Roerich's informant). The two speakers discuss their work as Tibetan-language informants,
their first meeting, when Champa Sangda entertained the guests with Tibetan classical songs, and local news.

IV. sku-zhabs rigs-dbang lags dang byams-pa gsang-mdas' lags phun-tshogs bcas dge'o; 'Mr. Rigwang, Mr. Champa Sangda, and Phuntshog'. Phuntshog, the servant, announces Champa Sangda's arrival to R., who agrees to see him. They again discuss their present work as informants; Champa Sangda then gives an account of his boyhood in Pampo Province, and subsequent career; finally they discuss the Polite Style of speech.

V. drag-shod-kyi ra-ni sab mchog dang rigs-dbang lags lhan-gnyis-kyi bka'-mol; 'Conversation between the Rani Sahiba and Mr. Rigwang'. Rani Dorji questions R. about his work in London.

Before proceeding to a consideration of the texts that are based on recordings made from a prepared script, something should first be said about the state of the above five texts to account for the frequent emendations (in square brackets). When I compared the texts written out by dpal-'byor phun-tshogs with the original recording from which each had been made, I found that they had been transcribed carelessly: a considerable number of odd words, and some whole sentences, had been omitted; and words and phrases were sometimes in the wrong order. Some of the
mistakes appear in the original rough copy made direct from the recording; others are mistakes in copying, and appear only in the fair copy that was made from the original transcription. It therefore became necessary to edit Phuntshog's texts; and the square brackets indicate the addition to these texts of material that I found to have been omitted.

Phuntshog might reasonably claim extenuating circumstances to account for his carelessness: in the first place the writing down of LT presented something of a problem (pp. 677-80 below); and in the second the transcribing had to be done at high speed, and with as few re-playings as possible. The reason for this haste was that landslides had interfered with the Kalimpong electricity supply; electric power was therefore rationed, and the recording machine could be run off the local supply for only a very few hours each day. Very fortunately for me H.R.H. Prince Peter of Greece and Denmark had a charging-motor of his own in Kalimpong, and he very kindly charged my batteries for me; so that I was partly independent of the local supply; but even so it was a race against time, and some texts did not get beyond the rough-copy stage before I had to leave Kalimpong.
Texts from Scripted Recordings

When suitable examples are not to be had from the texts made from the five unscripted recordings, they are, as a second choice, taken from the texts of scripted recordings. The texts of these recordings are:

i. Tibetan Sentences (Sir Basil Gould, C.M.G., C.I.E., and Hugh Edward Richardson, Oxford University Press, 1943);


All three recordings were made on wire in Kalimpong (1950).

Examples from these three sources are acknowledged by 'G. and R.' in the case of 'i' and 'ii', and by 'Bell' in the case of 'iii'. Where R. changed an example from one of these sources in order to adapt it to his own usage, the fact that he did so is also mentioned.

Further texts are provided by a series of scripted sentences prepared by R. and recorded on discs in London at the School of Oriental and African Studies.

'R.'s Autobiography', the text of a recording made on discs in London (1949), was also used, but not as a linguistic text. It was the source for an account of R.'s life before
he came to London. The recording was made from a script written in Classical Tibetan, and therefore provides an example not of LT but of the Reading Style (pp. 14-26).

Difficulties encountered in dealing with the Texts
Considerable difficulties were experienced in dealing with the material provided by the various recordings mentioned in the two preceding sections. In the case of the five texts written down from unscripted recordings the difficulty was one of spelling: LT has no generally accepted spelling; for LT utterances are regularly translated into Classical Tibetan when they are to be written down. Thus, the Tibetan lexicographer, Kaji Dousamdup, says of his dictionary entries: 'Care has been taken to give the Tibetan words as correctly spelt where possible, but where colloquial words had to be used in preference to classical words, no strictly correct spelling could be adhered to'. By colloquial words he means not only LT words but words in the Sikkimese and other Tibetan dialects as well. Similarly Dousamdup's pupil, Hannah: 'Of course it must be remembered that the Colloquial, as such, pays no regard to spelling, but only to its own phonetics. Hence, if one attempts to write Tibetan, one

should spell properly. Therefore, also, if one attempts to write Colloquial, it must always look wrong as regards spelling. H.E. Richardson, C.I.E., O.B.E., formerly in charge of the Indian Mission, Lhasa, writes, in correspondence: 'It is perhaps not strictly correct to say that utterances in Lhasa Tibetan are written down at all. Tibetans do not write down what they say except for special purposes such as your research and our sentences [Tibetan Sentences, and Tibetan Language Records] (see p. 676 above); he also told me that the only instance that he knew of in which LT was written in Lhasa was in correspondence between H. Harrer (author of "Seven Years in Tibet, London, 1953) and some of the younger Officials. Attempts have however been made to 'write Colloquial'. Bell was perhaps the first to do so (Grammar, 1st. ed., Chumbi, Tibet, 1905); and not only in the Grammar but also in his English-Tibetan Colloquial Dictionary (Calcutta, 1920) and his Manual of Colloquial Tibetan (Calcutta, 1905) he sometimes gives two spellings for the same form: 'Where the colloquial and the literary form differ the latter is given in brackets in the Tibetan character' (Grammar, 1), and 'The Tibetan words and syllables in brackets are those used in

---

the simple form of book language. Where the pronunciation of the literary and spoken form of a word is the same, the literary form alone is given, since the sole object of entering the spoken form is to show the exact pronunciation of the word,' (Grammar, vii-viii). Every form in brackets is therefore preceded by a phonetic spelling in the Tibetan script; but it is not clear whether Bell himself, or his Tibetan and other helpers, supplied this phonetic spelling. Certainly his phonetic spellings are in the main consistent with those used later by Hannah (Grammar), Gould and Richardson (Sentences; Records; Tibetan Verb Roots, Kalimpong, 1949; Tibetan Word Book, Oxford University Press, 1943), George N. Roerich and Tse-trung Lopsang Phuntshok (Textbook of Colloquial Tibetan, Government of West Bengal, 1957), and dpal-'byor phun-tshog, who wrote out the texts of my unscripted recordings from play-back. dpal-'byor phun-tshog was left free to spell as he pleased; and I had explained to him that I was willing to accept the translation of all the recorded utterances into Classical Tibetan, if that was the only form in which he felt that they might be written down. In fact, where he departs from Classical spelling the forms that he gives are phonetic spellings often identical with those which appear in Bell; e.g.
'das \textit{de:} \text{Class.} 'di-ru \textit{here}'

gsol-ja'i \textit{so:d\textalpha:} \text{gsol-ja-la} 'for tea'
bcar-ra-yin \textit{t\textjrej\textj} \text{bcar-ba-} 'called on'
bsil-ra-yin-pa'dra \textit{sirejim\textbedra} \text{bsil-ba-} 'must have [got cold'
slab-dgra \textit{st\textb\textd\textbre} \text{slob-grwa} 'school'

In the case of recordings made from written or printed texts the spelling of the text presents no problem; for, whether valid for LT or not, it was accepted by R. as a basis for making the recording. There the problem is one of pronunciation. It is seldom, if ever, that a Tibetan is required to read texts in anything but Classical Tibetan; and he therefore finds it difficult not to use Reading-Style pronunciations in reading from any written or printed text, even when the vocabulary and orthography of the text are clearly not Classical. R. became conscious of this difficulty, but was not always able to overcome it, particularly since the Reading Style carries with it all the prestige of literacy and familiarity with the Classical language. Pronunciations such as the following have been observed in recordings made from written or printed texts:

\footnote{For Reading Style see pp. 14-26.}
Where necessary, attention is drawn to any such Reading-Style pronunciations by footnotes.

1 Cf. also Yu Dawchyuan and Dr. Jaw Yuanrenn (Y.R. Chao), Love-songs of the Sixth Dalai Lama, Peiping, 1930, 198: "The pronunciation recorded in this book does not represent the pronunciation used by Mr. blo-bzang-sang-rgyas in his ordinary speech. It is the habit of Tibetans -- to pronounce a word in one way when the word is used in ordinary speech, and in another way when the word is read from a book. -- -- in the following table I give the transcription of those words as they are pronounced in ordinary speech." Even though the Love-songs were not composed in Classical Tibetan, Yu and Jaw's informants thought it appropriate to use the Reading-Style pronunciation in reading them.
APPENDIX III
ADDITIONAL TONAL AND INTONATIONAL EXAMPLES

Non-Sentence-final Clause
Non-Emphatic

21313111l. Intonation One
a. Clause-final High Pitch
   i. Two Pitch Marks

Tone One, ---

If just a little sort-of real assistance should be granted by the Government,'

---

'As you know,'

'thän-thi dini së:dzä: phe: ma thu:dzä:,
da ma-gzhi de-ni gsol-ja'i phebs ma thub-čang,
'Now since, then, he cannot in fact come to tea,'
Tone Two, -

kho kalt: pu:le de:dy:
kho bka'-blon spong-la bsdad-dus,
'When he stayed in Kalimpong,'

ji:ne:, vin-na'i 'However,'

di jinza:, de vin-tsang, 'In which case,'

mi ne:be ji si:ga, phe:bere.
mi nad-pa zhig gzigs-pa, phebs-pa-red.
'He has gone to see a sick person.' (G. and R.).

212121112. Intonation Two

ii. Two Pitch Marks

Tone One, -

di: cengi tjiyi pa:r ni:sum ra po chi:dzé,
de'i rkya-n-zwi [geig-gi] par guvis-gsum ra-po 'khver-byas.
'Having for that reason taken sort-of two or three copies,'
ja: tʃhiʃʂu: naːs, juro: naː: (the lexical item is voiceless, and therefore non-pitch-bearing)

yar chibs-bsgyur gnang-ze, zhu[roq gnang].

'Please invite him to come up.'

Tone Two, ________

tri:bu dundy:, dril-bu brdung-dus, 'When the bell rings',

le:se khyːle thande tshakbaː ʃ tʃi ndindreː meː de,
lhas-sa khul-la da-lta tshag-par-se [cig 'di-'dras] med de'i,

'We have not at present got any letterpress like this in the Lhasa district, but - - .'

dinzulə phembo rəbu tʃheː, --- tʃheːn,

de-'tsho-la phan-pa ra-po [byas], byas-ni,

'Having - - having done it sort-of for their sake,'

byas-bzhin, 'Therefore,'
'When the sheep got all mixed up with the goats,'

Four Pitch Marks

Tone One, ______

khadze: tringogne, ga-tshad springs-dgos-vod-na'i

'However many one has distributed,'

lhas-sa-nas yong-mkhan mi gsar-pa bslebs-vod-na-med,

'--- Whether or not anyone has newly arrived from Lhasa,'

Emphatic

Verb + Particle Word, or Verb Word, not Prominent

Tone One, ______

na mi: tega, drugeji.: nga mig lta-ga, rig-gi-yin,

'I shall go and see.'

1 jërgé: is a Reading Style pronunciation (LT jë:pe:).
'Now, in a few days' time,'

'Since it was in Kalimpong that some man printed it,'

'Tone Two,'

'And so the speech of Lhasa itself ---

'I am going there in order to study religion.' (G. and R., emended).

'Having done that sort of thing,'
that "in the land of the goods the goods are scarce."

"Have you got a printing works?" When they say this,

Sentence-final Clause

2121212111. Intonation One

a. Sentence-final Fall

i. One pitch Mark

Tone One, —

And, when the bell rings, all assemble.

Cf. also, from Indicative Sentences, nā:, gnang; thō:, thon; tshī:, phyin; and from Imperative Sentences, jo:, shog; tṣhe:, phy:; phy:, phul.

Tone Two, —

Yes, it is.
Cf. also, from Indicative Sentences, du:, 'dug; tʃhe:, byas; tʃhū:, byung; and from Imperative Sentences, ūy:, zhūs; gju:, rgyugs; gʃp, rgyab.

The above examples are all of Verb Words; the following are of Particle Words (red, etc.):
de-ni bkod-byas, lo mang-po la las-kyi-red-pa.

(Vb.: las [sic; ?lad]; Part.: kyi, red, pa); 'then, when they have carved it, it will get indistinct over the years, will it not?'

la re: lags red. 'Yes, it will.'

Cf. also vod, yin, byung, mē, which appear in the recorded material, and 'dug, min, vong, 'dra, song, which do not.

b. Sentence-final Low and Level Pitch

Two Pitch Marks

Tone One, __

Cf. also nāː:dʒūː, gnang-byung; nāː:sūː, gnang-song; tʃhejə, phye-vod; sordu, gsungs-'dug; nāː, gnang-nga; nango, gnang-dgos; nāː:jū, gnang-vong, nāː, gnang-qa; phae:bəː, phoeb-pas; pheːbaː, phebs-pa; luyːj, blug-shig; nāː, gnang-do; f'i:n tā, shes dang; teːda, ster-da; nāː, gnang-gis.
Tone Two,

Cf. also: dʒoːdʒû, 'byor-byung; lā:sū, langs-song; tʃheːjø, byas-vod; phybdū, babs-'dug; khøpû, go-nyung; sø:ba:, bzos-pa; ḫuγo, zhu-dgos; jeːjû, bzhes-yong; sù:ga, bzhugs-ka; ḫøbe:, rgyab-pas; reːnø, reddy-na; jøːnø, yod-na; jîːnø, vin-na; meː tro, mad 'gro; søjî, bzo-'shig; ḫroː, 'gro-do; triː tâ, dris dang; sigi, zer-gyis; jɔːre, yod-pa-red yeg-red/yod-red.

All the above section-b examples are of Vb. + Part.

Words; the following disyllabic Part. Word has also been noted as having the same pitch pattern as the Tone-Two:

examples: reːnø, reddy-na.

Three Pitch Marks

Tone One,

Cf. also other examples, that, like mthong-ma-nyung, are Negative forms corresponding to certain of the Affirmative forms given among the Two-Pitch-Mark Examples: jîːmedʒû:, shes-ma-byung; tʃhøːmasû:, mchod-ma-song; tâmĭndû, btang-mi-'dug; nāːmejû, gnang-mi-yong; cf. also Interrogative forms in pas/gas/ngas (General-Interrogative) corresponding to certain Indicative forms given as Two-Pitch-Mark examples: nandʒûːː, gnang-byung-ngas; nāːsunêː, gnang-song-ngas; kjøːjøːː, khyer-yod-pas; leːdugeː, balebs-'dug-gas; theːunjûː, thad-myong-ngas; nāːjøːː, gnang-yong-ngas;
phe:gie:, phebs-kyi-pae; cf. also the following forms in
pa/ba/se/nge/ra (Past Particle): phe:bera, phebs-pa-red;
terje, bster-ra-yod; terendu, bster-ra-'dug; tanjei,
btings-ba-yin; cf. also: na:jo:na, gnang-yong-nga, nagore,
gnang-go-red; lybgo:yo, bslabs-dgos-yod; phebjo:re,
phebs-yod-pa-red.

Tone Two, ~ ~

Cf. also the Negative forms: dzor:med3u:, 'byor-ma-byung;
dzo:masu:, 'byor-ma-song; tshemje:mu:, byas-mi-yong; dromanu,
'gro-ma-myong; and the Interrogative forms: dzor:duge:,
'byor-'dug-gas; droynge:, 'gro-myong-ngas; dzor:sunj:, 'byor-song-ngas; se:qune:, bzos-yong-ngas; dzor:jes:,
'lag-yod-pas; jo:ribe:, yod-pa-red-pas; tshigibe:, byed-kyi-pas;
cf. also the Past-Particle forms: tshunbera, byung-pa-red;
jimbera, vin-pa-red; de:beji:, bsde:pa-vin; me:beji:,
med-pa-vin; dzor:je:, 'byor-ra-yod; gsekendu, rgyab-pa-'dug;
jo:mare, yod-pa-ma-red/yog-ma-red; cf. also: se:qo:na,
bzos-yong-nga; sy:qo:na, zhus-myong-nga; sugsu: , zhu-go-yod;
tshogore, byed-go-red; jimbedra, vin-pa-'dra; bybsjo:re,
grvab-yod-pa-red.
Four Pitch Marks

Tone One, \_

Cf. also: 1aγpoγone, balabs-go-yod-na; and cf. the following Interrogative forms corresponding to the Declarative Negative forms given under Three Pitch Marks:


Tone Two, _____


The Four-Pitch-Mark 1W and 2W patterns are appropriate to Words containing the Special-Interrogative Particle na, and to the Alternative-Interrogative Particle na in the
second-alternative Clause (for the Alternative-Interrogative Particle na in the first-alternative Clause see 21212111, a, ii).

2121212112. Intonation Two

1. Sentence-final Rise in Pitch

Three Pitch Marks

Tone Two, 

\-\-

Cf. also: jö:benö, yod-pa-no.

Four Pitch Marks

Tone One, 

\-\-

Cf. also: tagəriba:, btang-nga-red-pa.

Tone Two, 

\-\-

Cf. also jö:mariba:, yod-ma-red-pa [sic; yod-pa-ma-red-pa]; jö:mare tā:, yod-ma-red dang [sic; yod-pa-ma-red dang]; jö:jimbəno, yod-pa-vin-pa-no; jəβjöbeno, rgyab-yod-pa-no.

2121212121. Intonation One

2a. Fall in Pitch

i. Tone One, 

\-\-

Cf. also: jingime:, shes-kyi-mad; tʃhigire:, phve-qi-red; tre:geji:, sprad-kyi-vin; thungyø:, ′thung-qi-vod; thugemə:, thub-kyi-man.
Tone Two, 

Cf. also: tshigs, byed-kyi-yod; drig, bshrigs-kyi-red; tshig: byed-kyi-yn; sgyem, za-gi-min; jin: g:em; rgyag-gi-mad.

ii.

Four Pitch Marks

Tone One, 

Cf. also: tib, stergyi-yn-na; pho: gijimba; phebs-kyi-yn-pa; tshy-gyob: ba; methok-kyi-yod-pa; pho: gme: dro; phog-gi-mad-gro; thu: gijindro, thub-kyi-yn-gro;

Tingmedro, shes-kyi-man-gro; nagjore, ghang-gi-yod-pa-red;

Tangmare, bthang-gi-ma-red; nangmindu, ghang-gi-mi-dug;

Jingajib, shes-kyi-a-yn; nagjajo; ghang-gi-a-yn;

Tone Two, 

Cf. also: tib, rgyab-kyi-yn-na; dz: g:ejimba; tshigs: ba; byed-kyi-yod-pa; drugmedro; ggro-gi-mad-gro; de: gijindro, bsdad-kyi-yn-gro;

Nagimendro, nga-gi-man-gro; jugiore, bzhugs-kyi-yod-pa-red;

Drigimare, jrig-gi-ma-red; nangmindu, nyan-gyi-mi-dug;

(par) rgyab-kyi-a-yn, jajib, de: gijajo; bsdad-kyi-a-yn; sigijo: th, zer-gyi-yod dang.
Five Pitch Marks

Tone One, \[ --- / \] 
the:gemembdra, thad-kyi-man-pa-'dra; nangjø:bedra, 
gnang-gi-yod-pa-'dra; nangime:bedra, gnang-gi-mad-pa-'dra; 
jingiø:mare, shes-kyi-yod-pa-ma-red.

Tone Two, \[ --- / \] 
Cf. also: phbgimembdra, babs-kyi-man-pa-'dra; dø:gyø:bedra, 
sdod-kyi-yod-pa-'dra; dø:gemebdra, sdod-kyi-mad-pa-'dra; 
degjø:mare, bsdad-kyi-yod-pa-ma-red; sigimariba, 
zer-gyi-ma-red-pa (for this last type of example Intonation 
Two is usual); drugiø:j föe: 'gro-gi-a-vin-ña.

2b. Level Pitch

1. Four Pitch Marks

Tone One, \[ --- / \] \(/ --- \) 
Cf. also: thu:geriø:, thub-kyi-red-pas; chingiø:;
mkhyen-gyi-yod-pas; thungøjimbe, 'thung-gi-yin-pas; 
chingiduga, mkhyen-gyi-'dug-ga.

Tone Two, \[ --- / \] \(/ --- \) 
Cf. also jegime:bø:, bzhes-kyi-med-pas; naginduge:, 
na-gi-'dug-gas; dangiriø:, ldang-gi-red-pas; jungøjimbe:, 
yong-gi-yin-pas; ja:giduga, rgyag-gi-'dug-ga.
11. Five Pitch Marks

Tone One, __________

Cf. also: nagiminduga:, gnang-gi-mi-'dug-gas;
lybqiminduga, balsalbs-kyi-mi-'dug-ga.

Tone Two, __________

Cf. also: (ha) khugiminduga, (ha) go-gi-mi-'dug-ga.

3.

Three Pitch Marks

Tone One, __________

Cf. also: thu:ajaa, thub-a-yong.

Tone Two, __________

Cf. also: ja:ajaa, bzhag-a-yod.

5.

a. Word-final Fall in pitch.

ii. Tone-Two only

Two Pitch Marks, __________

Cf. also: riβe:, red-pas; joβe:, yod-pas; duge:, 'dug-gas;
joγe:, yong-ngas; tshunγe:, byung-ngas; me:be:, mad-pas/med-pas
membe:, min-pas/maa-pas; joŋa; yong-nga; tshunγa, byung-nga.
Three Pitch Marks, 

Cf. also minduga, mi-'dug-ga; mariṅːɛː, ma-red-pas; 
mandaŋːɛː, ma-byung-nga; mandaŋːa, ma-byung-nga; mejɔːːː, 
mi-yong-nga; mejɔːːŋa, mi-yong-nga. 

In one respect, i.e. the fall in pitch on the final Syllable 
(pas/gas/ngas, pa/ga/nga), the above pattern accords with 
those given above (Two Pitch Marks) for dugeːː, 'dug-gas, 
and duga, 'dug-ga; for e.g. kjigindugeːː, skye-gi-'dug-gas; 
chīngiduga, mkhyen-gyi-'dug-ga (2b, i); and for 
nangimindugeːː, gnang-gi-mi-'dug-gas (2b, ii).

b. Word-initial Fall in Pitch (Tone Two only)

i. Low Fall, 

Cf. also mare, ma-red (but for mejɔːːː, mi-yong, see 
2121212121, a, ii).

ii. High Fall,  

Cf. also: ʔajəːː, a-yod; ʔajʊːː, a-yong.

Three Pitch Marks

Cf. also: ʔajəː:na, a-yod-na.

212121212121. Intonation Two

a.  

Cf. also: tʃhʊːː, byung.
b.

ii.

Four Pitch Marks

Tone One, 

Cf. also: sungiduga, gsung-gi-’dug-ga.

Tone Two, 

Cf. also nagiduga, na-gi-’dug-ga.

iii.

Five Pitch Marks

Tone One, 


Tone Two, 

Six Pitch Marks

Tone One, - \ - - - /


Tone Two, - \ - - /


d.

Four Pitch Marks

Tone One, - \ - - - /

Cf. also phejko:ri tā:, phebs-yod-pa-red dang.

Tone Two, - \ - - /

Cf. also: jrbjko:riba:, rgyab-yod-pa-red-pa.

Five Pitch Marks

Tone One, - \ - - - /

Cf. also trūjko:mari tā:, 'khrung-yod-pa-ma-red dang.

Tone Two

Cf. also: jufjko:mari tā:, bzhugs-yod-pa-ma-red dang.
2121212221. **Intonation One**

One Pitch Mark

Tone One, __

____________________________________
tha-ga:s kams mo: rybu sy: thno:

da-ga-'i-se bka'-mol ra-po [zhus mchog]. (Indicative Sentence).
'Must have a spontaneous sort-of conversation.'

Cf. also, from Indicative Sentences: tshI:, phyin; pi:, pis.

Tone Two, __

____________________________________
\di pha: kje:mu:
'
di phar phyer rgyugs. (Imperative Sentence).
'Take this away!' (G. and R.).

Cf. also, from Indicative Sentences: re, red; du, 'dug; jI, vIn; jo, vod; tshI/e, byas; sa, se; j5, vong.

The same pitch pattern has been noted for the Particle Words re, red, and jo, vod.

Two Pitch Marks

Tone One, __

nä:jü, gnang-vong; sambi, bsam-gvis.
Tone Two, 

\[
\text{tsa:n mindu. tsang-ni mi-'dug. 'There are none whatever.'} 
\]

Cf. 21212121, 5b, i.

\[
\text{da mi-gas bod-pa'i slab-phrug ga-tshad tsa 'dug-ga.} 
\]

'The following three sentences are quotations from a Chinese who is a T人流学校boy."

'The following three sentences are quotations from a Chinese who is a T人流学校boy."

'The following three sentences are quotations from a Chinese who is a T人流学校boy."

Now about how many Tibetan schoolboys are there down there?'

Cf. p. 229.

Cf. also: \( jì:na, \) vin-na (Special Interrogative); tjhū:ja, byung-shag; riːɛː; red-pas; joːɛː; yod-pas-zer; ri tā, red dang; dzaːgo, 'jaga[-gos]; jeːjū, bzher-yong; jimbaː, vin-pa; dzaːga, 'jags-ka; dzaːbaː, 'jaga-pa.

Three Pitch Marks

Tone One, 

Cf. also: søngere, gsung-nga-red; tjho:gyreː, chog-gi-red.

Tone Two, 

Cf. also jimberè, vin-pa-red; sigidu, [zer-gvi-'dug]; jimbeːra, vin-pa-'dra; tjhiːjìː; byed-kyi-yod; gugere, dgos-kyi-red; gojìmɛː, dgos-yod-med; göːŋeː, dgos-yod-na; dzaːgʊre, sbyar-go-red; tjhū:mindu, byung-mi-'dug.
Four Pitch Marks

Tone One,


Tone Two,

Cf. also: sigidu:ne, zer-gyi-'dug-na; srej:ne, za-[ra-vin-na].

gum: tra, dgos-kyi-mad [gro]; sigij:ba:, bzhes-kyi-yod-pa.

Five Pitch Marks

Tone One,

Cf. also: srigi:mare, shes-kyi-yod-ma-red.

2121212222. Intonation Two

b. Two Pitch Marks

jinzâ:, ^udzi duga, [vin]-tsang, a'u-rtse 'dug-ka.

'There would be enough, as it is, would there not?'
c. Four Pitch Marks

---

Tone Two

---

Cf. also: drugyduga, 'gro-gi-dug-ga; drugyriba:, 'gro-gi-red-pa.

2121215. Verb + Nominalizing-Particle (+ Nominal-Particle)

21212151. Non-Emphatic Intonation

212121512. Group-Two Particle

Two Pitch Marks

Tone One ---

Cf. also: namzi:, amang-rtsis; nam-my:, amang-mus; fe:da:, bshad-bltang [sic; bstang]; phe:n:; phebs-nyan;
kje:ro:, skyon-rog; tsho:do:, mchod-dog (kha-po); thonde,
mthong-ta; tengju, bstan-rgyu; thase, thar-sa (only the first of the two patterns applies to these last three examples).
Tone Two

---, --

Gf. also: sudzi:, bzo-rotsis; dza:my:, 'jag-<mu>; Jong:, yong-bstangs; sen:; zer-nyan; juro:, zhu-rog; je:do:, bzhes-tog (kha-po); tshidrup, byed-thabs; dc:15:, bsdad-long; khoda, go-ta; j^u, rgyab-rgyu; drikes, bagrigsa-sa (only the first of the two patterns applies to these last three examples).

Three Pitch Marks

Tone One

---

nartang:; gmang-bstang[-gi];

31213152. Emphatic Intonation

a. Prominent-Word Patterns

i.

Two Pitch Marks

Tone One

\-

Gf. also: ta:ja:, btang-yag

b. Non-Prominent Word Patterns

Two Pitch Marks

Tone One

---

nong:; gmang-bstang; tokbe:, tog[-pas]; nang, gmang-nga;
Tone Two

\[
\text{\textit{zhu-nyan; dza-dya; 'jags-dus; jungju, yong-rgyu;}}
\]
\[
\text{tshiy: byed-rgyu'i.}
\]
APPENDIX IV

zP VERBS: QUANTITY

Short-Piece (sp) Verbs

I. y-Piece (yp)

A. Close-Piece (cP)

'grig be all right (irregular; p 342); dr̃(2)\(^1\)
(b)grig fix, join together (irregular; p 342); dr̃(2)
shi die: ſl; bzi be drunk: st (2)\(^2\)

B. Close/Open-Piece (c/OP)

zer say: sə/si (2)\(^3\) (irregular: p 348); rtse play:
tə/tsə; phve open: tʃə/tʃi; hyed do: tʃə/tʃi (2)
(irregular; p 399)

II. w-Piece (wp)

A. Close-Piece (cP)

B. Close/Open-Piece (c/OP)

dəo/dəos must: gə/gə (2); 'gro go: dɾə/dɾə (2)
(irregular; p 408); dɾo warm: tɾə/tɾə (2)\(^2\); go
hear: kʰə/kʰə (2); byo transfer (by pouring): tʃə (2)\(^2\);

\(^1\)The figure '2' indicates a Tone-2 Verb; all others are Tone-1.

\(^2\)Possibly a s/l Verb (p. 398).

\(^3\)The function of the oblique stroke is to separate
Close-Piece (cP) and Open-Piece (oP) forms, the cP being
given first.

It is possible that this fact could be considered as D
([m]); but I suspect that the orthography is responsible
for occurrences of this sort where, on other occasions,
has been used.
smyo mad: no (literary?); skyo be depressed:
kjo; rko hoe: ko

III. a-Piece (aP) (Necessarily also c/oP)
tsha hot: tshv; na painful, ill: na/n\(\wedge\) (2); dga'
happy: ga/ga\(\wedge\) (2)

Short-or-Long-Piece Verbs

I. y-Piece (yP)
A. Close-Piece (cP)
B. Close/Open-Piece (c/oP)
  (b)skye(s) be born: kje/kje; bzhes drink: j\(\iota\),
      j\(\iota\): (2)

II. w-Piece (wP)
A. Close-Piece (cP)
  zhu(s) offer: j\(\omega\), jy: (2); bkru(s), 'khrud wash:
      tr\(\omega\), try\(\prime\); tr\(\omega\), try\(\prime\);
  ngu(s) cry: \(\eta\omega\), \(\eta\)\(\upsilon\): (2);
  rku(s) steal: k\(\iota\), ky\(\prime\);
  gzhu(s) lash: j\(\omega\), jy: (2);
  'du(s) collect: d\(\omega\), dy: (2);
  sdud collect: d\(\omega\), dy: (2);
  bshu(s) peel: j\(\omega\), jy\(\prime\);
  bshu(s) greet: s\(\omega\), s\(\upsilon\);
  bshu(b)(s) churn: s\(\omega\), s\(\upsilon\);
B. Close/Open-Piece (c/oP)
  nyu(s) buy: \(\eta\)\(\upsilon\)/\(\eta\)\(\upsilon\), \(\eta\)\(\upsilon\): (2);
  rmo(s) plough: m\(\upsilon\), m\(\upsilon\):

1 It is possible that this Verb should be classified as dP
   (je:\(\iota\)); but I suspect that the orthography is responsible
   for occurrences of this form where, on other occasions, j\(\iota\)
   has been used.
(literary?); 'tshod/btos cook: tšo, tšo: (less commonly tsho, tsho:); bzo(s) make: sɔ/sɔ, sɔ: (2); (b)sko(g) appoint: kɔ, kə:; (b)rngod roast: nə, nə:; 'tsho(g) graze: tsho, tsho:; (b)sro(g) warm: tro, trə:; gso(g) feed: sə, sə:; beho(g) lie with: ʃə, ʃə:

III. ə-Piece (əP) (necessarily c/op)

(b)ltas(s) look: ta/tə, tə:; (b)zas(ⁿ), bzas eat: sa/sə, sa: (2); (b)ṅrgas(s) reap: ɾa/ɾə, ɾə:; lha(s) plait:

la/la, le:; 1a/la, le:

dP-VERB SYLLABLES

I. y-Piece (yP)

A. Close-Piece (cP)

dris ask: tɾi: (a); bris write: tɾi: (2); pis ('bud) take off, doff: pi:; bud fall off: phi: (2); phubs pitch: pi: (also phu:); rnved find: ni:; 1 'khrid lead: tɾi:; brtsis count: tsi:

B. Close/Open-Piece (c/op)

red is: reː/ɾə (2); rtsed play: tseː; phebs come:
pheː (p. 347); sleb arrive: leː (p. 347); zhed

1 The form nə:, which has also been observed, I believe to be a spelling pronunciation (Bell, p.135).
fear: je: (2); brzed forget: dʒe: (2)\(^1\); nyes
beat: ne: (2); dgyes happy: je: (2); mnved
tan: ne:; thebs seize: the:; \(^2\) 'bebs let fall:
be: (2); bzed hold out: se: (2); gzed hit:
se: (2); rjes change: dʒe: (2); \(^3\) bgres grow old:
dre: (2); 'gves separate: je: (also che:)
(2); 'ded pursue: de: (2); (b)skyed give birth to: ce:/ci:

II. w-Piece (wP)

A. Close-Piece (cP)

brgyus string together: gży: (2); 'jus grasp:
ðʒy: (2); nus dare: ny: (2) (nus-song only);
bus blow: phy: (2)

B. Close/Open-Piece (c/OP)

mchodseat/drink: tʃhɔ:/tʃhy:; 'dod want: dɔ:/dy:
(2); sprod give: tɾɔ:/tɾy: (more commonly tɾɔ:/tɾe:,

\(^1\) The form dʒəqду: that has also been recorded would require
this verb to be classified as zP; but this form may result
from confusion with rje(s).

\(^2\) Also recorded as b-Piece: thξp/b; phξp/b.

\(^3\) The forms dʒəqду: and dʒɛʃu (rje-gi-'dug, rje-shig) that
have also been recorded would require this verb to be
classified as zP; but these forms may result from confusion
with rje(s).

All the verbs listed above are confusing.

In addition a number of examples of
nw; see sprad); vod have: je: (2) (irregular; p. 360); sdod live: de: (2) (more commonly de:/de:, nw; see bsdad); bros flee: phø: (also trø:) (2); gmod bewitch: no:; 'phrod be delivered: trø:;

bod name: phø: (2); sbad swell up: be: (2);
thos hear: thø:; lhod loosen: lo:; 'os be suitable: ø: (2); bgod distribute: go: (2);
dgod laugh: go: (2) (?literary; cf. gjer/gje:);
gos infect: go: (2); 'gyod repent of: gjø: (2) 
spos move: pe:; 'phos move: phø:

III. e-Piece (eP) (necessarily also c/op)
gas split: kje:/kje: (2); rgas get old: je:/je: (2); bshad explain: je:/je:; sprad give: træ:/tre:;

byas do: tše: (2) (irregular; p. 399); thad/s go: thše:/thše:; bsdad live/stay: de:/de: (2) (cf. dø:); mad/med have not: me:/me: (2); lus leave behind: le: (2); gnas dwell: ne:/ne: (?literary)

'phrad meet with: trø:; btsas be born: tsø:/tse:;

chad snap: tʃhe:/tʃhe:; bcad cut: tʃe:/tʃe:;

bsad se:/se: (less commonly se: gsod); mdzad make: ze:/ze: (2) (?literary); brtses love: tsø:/tse:

shad comb: je:/je: (?literary)

All the verbs listed above were established as dP.

In addition a number of examples of other verbs were
recorded in phonetic forms that are consistent with being dP (pp. 318-35); and without further examination it is impossible to decide whether they are in fact dP or rP (p.345):

yP: dbril overturn: ri:; ril be overturned: ri: (2); sgril roll: dri: (2); mnyel get tired: pe:; 'brel combine: be:/dre: (2); 'gyel fall down: gje: (2); 'phel spread: phe:; spel spread: pe:; bkel spin: ce:; gzil [translation not known]: si: (2)

wP: 'dul tame: dy: (2); dkrol unfasten: trø:; grol be unfastened: trø: (2); 'tshol look for: tsø: or tshø: (but more commonly tsɛ:/tse: or tshe:/tshe:, nW)

eP: nyal sleep: pe:/pe: (2); bshal purge: je:/je:; 'gal transgress: gje: (2); bkal load: kjɛ:/kjɛ: load: (')bral separate: trɛ:/tre: (2); 'ial pay (tax): dɛ: (2); ral get torn: rc:/re: (2); dbral tear: rc:/re:; bkral comment on: tre:; 'phral separate: trɛ:; (')khal spin: che:/che:; rgal cross: gje:/gje: (2); bsnyal lay down: pe:.

Syllable-final l in the orthography is generally a reliable indication that the syllable in question is rP; it is
therefore probable that each of the above verbs has a Fast-Tempo form in (yP) -ıır or -eër, (wP) -yr or -eër, and (eP) -eër, as appropriate (rP criterion (i)); and this is in fact the pronunciation given by Bell (Manual of Colloquial Tibetan, Calcutta, 1905) for the following: sgril, sbrel, 'gyel, 'khal/'khal, dkrol, 'tshal ('tshol), bshal, and ral. There are therefore good grounds for classifying them not as dP but as rP.
APPENDIX V

eP VERBS: \( \bar{r}P, r/\bar{r}P \)

(All Verbs that have no Imperative form must be \( \bar{r} \), and have therefore been excluded from this list)

I. z-Piece \((zP)\) (\( \bar{r}P: 1; \bar{r}/rP: 3 \))

\( \bar{r}P: \) ga \((2)\) \(dga\) 'be happy\

\( \bar{r}/rP: \) \(ta/te, to: lta/bltas, ltos\) look; \( \bar{s}a/\bar{s}e:\), \(sc: (2) za/bzas, zo\) eat; \(\etaa/\etae:\), \(\etao: (also \etaa)\) mow

II. g-Piece \((gP)\) (\( \bar{r}P: 4; \bar{r}/rP: 13 \))

\( \bar{r}P: \) \(dza: (2) (bzhugs-gdan) jag\) sit down; \(ja: (2)\) \(rgyag/b\) shut, etc; \(\etaa: mngag\) dispatch.

The following verb has been observed only in a form that is consistent with either g or r; but since the spelling \(-g(a)\) is usually a reliable indication of a potential form in \(-a:g(e)\), which is a g criterion, it has been provisionally classified as gP: \(ra: (2)\) \(rak\) (occasionally also \(reg\) get)

---

1 Tone-2-Word Verbs are indicated by the figure '2'; all other Verbs are Tone-1-Word. The phonetic form given in the \( \bar{r}P \) sections is appropriate to the Verb Word, whether Imperative or non-Imperative; e.g. 'jag: (i) Imperative bzhugs-gdan 'jag \((dza:)\) do sit down; (ii) non-Imperative bzhugs-gdan 'jag \((dza:)\) 'jag-ga-vin she was staying.

2 Of the two phonetic forms separated by comma the first is \( rP \), non-Imperative, and Verb-Word, while the second is \( rP \), Imperative, and also Verb-Word. Where alternative \( rP \) forms are given, the first seems to be the more usual.
\(\tilde{r}/\tilde{r}P:\) \(\text{sa}:, \text{jo}: (\text{also } \text{sa}:) (2)\) bzhag, zhog/bzhag put; 
\(\text{tra}:, \text{tra}: (\text{also } \text{tra}:)\) sreg, sregs toast, burn; 
\(\text{ka}:, \text{ka}: (\text{also } \text{ka}:)\) bkag, khogs hinder; \(\text{la}:,\) 
\(\text{la}: (\text{also } \text{la}:)\) rлагs/glags, rlog/glogs destroy; 
\(\text{ja}:, \text{jo}: (\text{also } \text{ja}:)\) bshags, gshog split; \(\text{sa}:,\)
\(\text{so}: (\text{also } \text{so}:)\) bsag, sog heap up; \(\text{za}:, \text{zo}:\) 
(\text{also } \text{za}:) (2) 'dzeg, 'dzegs climb; \(\text{tf}a,:, \text{tjo}:\) 
(\text{also } \text{tja}:) bcags, chogs break.

As in the case of \(\text{ra}: \text{reg},\) at \(\tilde{r}P\) above, the following have also been provisionally classified as \(gP:\) \(\text{kja}:, \text{kjo}/\text{kjo}: (\text{according to } \text{P. } \text{kjo}: \text{is literary}) \) bkyag (G. and R. 'khyog), 
\(\text{skyog} (\text{G. and R. khyogs}) \) lift up (door-curtain, etc.); \(\text{ta}:/\text{tha}:, \text{to}:/\text{tho}: (\text{also } \text{ta}:/\text{tha}:)\)
\(\text{btags}, \text{thog} \text{weave}; \text{t}sa:/\text{tsha}:, \text{ts}o: \text{btsags},\)
\(\text{tshogs} \text{sieve}; \text{da}:, \text{do}:/\text{ldag}, \text{ldogs} \text{lick}; \text{ta}:,\)
\(\text{to}: \text{btags}, \text{thogs} \text{fasten}\)

III. n-Piece (nP) (\(\tilde{r}P:\) \(r; \tilde{r}P:\) 10)
\(\tilde{r}P:\) \(\text{nā}: \text{gnang} \text{give, grant}; \text{zā}: (2) \text{brdzangs} \text{export};\)
\(\text{sā}: \text{bsangs} \text{purify}; \text{sā}: \text{bsrangs} \text{straighten}\)

\(\text{The form } \text{nza}: \text{has also been observed, but is taken to be a spelling pronunciation}\)
4/rP: tæ:, t5: btang, gtong send; kjä:, kj5:
brkyangs, rkyong stretch; kä:, kä: (also
k5: ) bskangs, skong fill; læ:, læ: (also
l5: ) lift up; læ:, l5: (2) lang, long get up;
bä:, b3: sbang, sbong soak; d3ä:, d35: (2)
sbyangs, sbyongs practise; nä:, n5: (2)
myangs, myong taste; jä:, jä: (also j5: ) (2)
zhengs get up; pä:, p5: spangs, spong
renounce; phä:, ph5: 'phangs, 'phong throw

IV. a-Piece (dP) (rP: 0; 4/rP: 7)

4/rP: tre:, trö: spod, sprod give; së:, së: bshad,
shod describe; tse:, tsö: bcad, chod cut; de:,
dë: (2) bsdad, sdod stay; tre:, trö: 'phrad
find; së:, së: shad, shod comb; së:, sö:
(also së: ) bsad, sod kill

V. n-Piece (nP) (rP: 3; 4/rP: 2)

rP: lë: (2) len take; thë: then pull; drë: (2)
'dren pull

4/rP: të:, të: (also t5:) baten, ston show; në:, nö:
(2) nyan, nyon listen

VI: b-Piece (bP) (rP: 10; 4/rP: 1)

rP: jöp/gjöp (2) rgyab shut, etc.; lüp slab teach;
lüp (2) tell; tsöp btsab mince; sölö bpab repay;
jöp g.yab wave; phöp (2) babs descend; kyp bkap
hide; kjvp bsyabs protect; tÅp krabs dance

\[\tilde{\text{f}}/\text{rP}: \text{tÅp, tÅp (also thÅp)} \text{'deb/btab, thob sow}\]

With the single exception of 'deb/btab all bP Verbs have only the one (\(\text{FP}\)) form; and, moreover, the rP form of that Verb seems less usual than the \(\tilde{\text{f}}\)P.

VII.m-Piece (mP) (FP: 1; \(\tilde{\text{f}}/\text{rP}: 3\))

\(\tilde{\text{f}}\)P: tham 'thams seize

\(\tilde{\text{f}}/\text{rP}: \text{kam, kam (also kom) bskems, ekom dry; dam, dom bsdams, adom tie; tsam, tsom brtsams, rtsom compose}\)

VIII:r-Piece (rP) (FP: 0; \(\tilde{\text{f}}/\text{rP}: (f) 11, (\tilde{\text{f}}) 4\))

\(\tilde{\text{f}}/\text{rP}: (f) \text{ce:/kje:, ce:/kje: (also ce:/kje:) bskval, skval conduct; gje:/je:, gje:/je: (occasionally also gjø:/jø:, but this rather literary) (2) rgval, rgval defeat; dzè:, dzè:/dzè: (2) mjal meet; tshè:, tshè:/tshø: (phyag) 'tshal salute; gjè:, gø: (2) bgad, dgod laugh.}\)

The following Verbs have been observed only in forms consistent with either the g or the r Piece; but, since -al is generally a reliable indication of the possibility of a form in -cr,
which provides a rP criterion, they have been provisionally classified as rP: tre:, tre:
(also tre: bkral, krol explain; che:/kɪɛ:,
khɛ: (occasionally also che:/kɪɛ:) khal/'khel
spin; nɛ:, nɛ: (occasionally also nɛ:) bsnval,
snyol lay down; nɛ:, nɛ: (2) nyal, nyol sleep;
tse:/tshɛ:, tse:/tshɛ: (occasionally also
tse:/tshɛ:) 'tshol, tshol look for; kjɛ:, kɛ:
(also go: (2)) bkal, khol load
(t) tja:, tja: becar visit; pa:, po: spar, spor
raise; ja:, ja: (2) bzhɛr shave; ja:, ja:
g, yar, g, vor borrow

Each Verb in this, where possible, in the context for in which it occurs is the Verbal Noun in (1) the past tense Particle, 8121311112, i.e., it is followed by a flaccid to form, usually a Noun, that provides a criterion for classifying it as nP, mP, or bP.

Tone-8-Word Verbs are followed by "(2)"
APPENDIX VI

INITIAL SYSTEM: nP, mP, AND bP VERBS

(There are no gP Verbs; zP Verbs have been omitted)

I. n-Piece Verbs

phyr - also, but in a more literary style, byr - (2)),
tshamby: phya-'bul salutation; phar-, tsamba:
rtsa-'phar pulse-beat; bar- (2), mamba: me-'bar
fire-lighting; pi:-, lamby: zhwa-'bud doffing the hat;
du- (2), tshondu tshogs-'du assembly; de:- (2),
dżende: rjas-'ded pursuit; dö:- (2), thunday: thugs-'dod
wish; dān- (2), khendā: go-'ldang dress-length; du:
(2), mindu: mi-'dug are not;
kīr-, jmyg: zhab-'sakul [?] [? error for zhab-'gul;
gy:- (2) move, shake]; khor-, tmyngo: 'phul-'khor
magic wheel; gje:- (2), jmyg: rgyab-'gal contrary;
gor- (2), tmyngo: thugs-'gor delay; ga:- (2), ngā
mnad-'gag importance; gjur- (2), sāngju: gsar-'gyur news
tṣug-, cmāg: skyabs-'jug favour; dzā:- (2),
dēndza bde-'jug peace; dżor- (2), tshandzo: phya-'byor
acquisition;

1 Each Verb is given, where possible, in the phonetic form in
which it occurs in the Verbal Noun in ba (Nominalizing Particle,
212131112, 1a); it is followed by a disyllabic form, usually a
Noun, that provides a criterion for classifying it as nP, mP, or
bP. Tone-2-Word Verbs are followed by '(2)'.

Tone-2-Word Verbs are followed by '(2)'.

Tone-2-Word Verbs are followed by '(2)'.
trug-, m\^ndru: \^d\^mag-'khrug war; \^dro- (2),
t\^shundru chu-'gro drain; \^tri:- (2), k\^ndri bka'-'dri
question; \^dre:- (2), g^j\^mdri rgyab-'dre quarrel;
\^zi- (2), t\^un\^zi: 'khrug-'dzing quarrel; \^zom- (2),
\^\^en\^zom (tahogs-'du) rgyas-'dzom national assembly;
zag- (2), k\^\^en\^za skas-'dzeg ladder; tsug- (occasionally)
also zug- (2)), go\^\^en\^zu: mgo-'dzug beginning;

II. m-Piece Verbs

thym-; k\^\^am\^dy: kha-mthun unanimity; dy:- (2)
(also thy:-), d\^\^am\^dy: dgra-'dul subjugation;
t\^\^e-; t\^\^\^am\^\^d3\^\^: ja-mchod libation of tea;
(the form z\^: / mze:, e.g. z\^: dz\^: m\^d\^zad-chen festival,
\^um\^ze: dbu-m\^d\^zad head tailor, has been excluded on the
grounds that as a Verb m\^d\^zad is confined to the literary
language);

III. b-Piece Verbs

\^\^a-; go\^\^ta mgo-btags protection; d\^\^ur- (2),
n\^\^bd\^\^\^u\^\^ nya-rdung-ba fisherman; ta-, \^\^o\^\^p\^\^ta bzo-blta
appearance;

t\^\^e-; sapt\^\^e/sabd3\^\^: sa-bcad division of work;
tro\^\^g-; go\^\^ptr\^\^o/g\^\^b\^\^d\^\^r\^\^o: mgo-dkrog upset; \^\^tri:- (2)
\^\^l\^\^\^b\^\^r\^\^i: be lha-bris-pa painter;

t\^\^sug-; \^\^\^\^p\^\^tsu/\^\^\^\^\^\^b\^\^zu: lha-btsug [? setting up an
image]
pe:-, kompe:be ko-mnyed-pa tanner; no-, chimno:
khyi-smye[-ba] mad dog;
jha:- (2), tjhabja cha-bzhag reliance; je:-, 
tjupje:/tjubje: chu-bshal washing; sim- (2), 
papsimbe nya-zin-pa fisherman; so- (2), trapso: 
khra-bzo-ba jeweller; su-, tapsu rta-bsu mounted 
reception/escort; (ra) si- (2), rapsie: ra-bzi-ba 
drunkard; fo-, tjhubjo: chu-bshos [? water poured out, 
? semen].
APPENDIX VII

h–h VERBS

Two-form (h, ḥ) Verbs

In addition to the three examples of Verbs with both a h (Intransitive) and a ḥ (Transitive) form given at pp. 631-2, the following Verbs have been recorded and are exhaustive for the material. The ḥ form is given at (i) and the h at (ii).

i. *khy:gydu:*  bskol-gyi-'dug  he is boiling (it);
   ii. *khy:gydu:*  khol-gyi-'dug  it is boiling.

i. *korere*  skor-re-red  he turned it;
   ii. *khorere*  'khor-re-red  it got turned.

i. *t[ɔ]:s5:*  bead-song  he cut it;
   ii. *t[ɔ]:s5:*  chad-song  it got cut.

i. *parere*  spar-ra-red  he raised it;
   ii. *pharere*  phar-re-red  it rose.

i. *pe:gidu:*  spel-gyi-'dug  he spreads (e.g. customs);
   ii. *phe:gidu:*  'phel-gyi-'dug  they (e.g. customs) spread.

i. *tɔre*  gtor-ra-red  he destroyed it;
   ii. *tɔre*  'thor-ra-red  it got destroyed.

i. *tɔmbere*  bton-pa-red  he drove him out;
   ii. *tɔmbere*  thon-pa-red  he went out.
To these R. wished to add:

1. \textit{tse:s5}: he opened it;
2. \textit{tshes5}: \textit{phye-song} it came open.

but examples such as \textit{tshigdu:}, \textit{phye-gi-`dug}, 'he opens it',
\textit{tsho:gidu:}, \textit{phye chog-gi-`dug}, 'he is allowed to open
it', \textit{age-khung phye} (\textit{tthe:}), 'open the window' (G. and R.),
all make it clear that the h form certainly has a Transitive
function as far as this Verb is concerned.

\textbf{h and h in Free Variation}

In addition the following Verbs appear to have \textit{h} and \textit{h}
forms in free variation:

1. \textit{tsa:gidu:} \textit{btaaga-kyi-`dug} he strains
2. \textit{tsha:gidu:} \textit{tshad-gi-`dug}
3. \textit{tse:s5:} \textit{tsho:ol-song} he looked for
4. \textit{tshes5:} \textit{tshod-pa-red} he cooked
5. \textit{tso:bare} \textit{btao-pa-red} he sold
6. \textit{tsho:bare} \textit{tshong-pa-red}
7. \textit{tsombare} \textit{btaoms-kyi-`dug} he sews
8. \textit{tshomgidu:} \textit{tshom-gyi-`dug}
9. \textit{try:bare} \textit{bkrus-pa-red} he washed
10. \textit{try:bare} \textit{khrud-pa-red}

\textsuperscript{1}Rarely also \textit{tso:s5:}, \textit{tsho:s5:}. 

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ACKNOWLEDGEMENTS

Since this thesis is an analysis of the speech of one man, Rinzin Wangpo, it is proper that my first acknowledgement should go to him as my informant. Ours was not always an easy relationship: when he first arrived in this country from Lhasa he was in a poor state of health, having suffered constantly from sea-sickness during the six-week voyage from Calcutta, where he had, in addition, been infected with an unsightly skin-disease; he spoke no English, and the little Tibetan that I had managed to learn before his arrival was barely enough for me to be able to understand his simplest requests, or to try and explain to him such features of life in this country in 1948-9 as ration-books; he was disappointed at not being put in charge of a class of young pupils learning texts by rote in the Tibetan monastic tradition of that time, and at having to put up with a single pupil, who wished to dictate unfamiliar teaching methods to him; and, from my point of view, he was my first informant: it was on him that I first learnt the technique of dealing with informants, and I had not then developed the patience and forbearance that come with experience. From such a relationship it was, perhaps, surprising that I managed to gain as much material as I in fact did; and I owe a great deal to the sentences and
texts of Bell ('Grammar of Colloquial Tibetan'), and of Sir Basil Gould and H.E. Richardson ('Tibetan Sentences', etc.), which I was able to use from the outset.

To my supervisor, the late Prof. J.R. Firth, I owe the technique of analysis that I have used throughout the thesis, prosodic analysis. Firth's view of prosodic analysis changed somewhat over the years, from its promulgation in 'Sounds and Prosodies' ('T.P.S., 1948', 1949) to the year of his death, in 1960; but I remained in touch with him after his retirement, in 1956, and, to the best of my knowledge, my method reflects the advances that he made over the years, especially in precision.

In particular I owe to him the concept of 'commutation system', through which the functional value of a particular phonological term is strictly related to the number of terms in the system to which it belongs, in contrast with the overall values, and consequent distributional statement of terms, that is to be found in, for example, phonemic analysis. The other leading concept that I owe to him is that of selecting phonetic data for phonological statement on syntagmatic rather than on paradigmatic grounds. Both these principles I have applied strictly throughout the thesis. I have found them especially useful in reconciling variant phonetic forms
of particular lexical items with each other, and in summarizing all such variant forms in a phonological formula for each lexical item.

The last occasion on which I discussed thesis material with Prof. Firth was in 1960, shortly before his death, when he agreed with my treating the lip-rounded form (imperative) of ə Verbs as phonologically distinct from the phonetically identical (lip-rounded) forms of w Verbs (2121323); but formal supervision had not continued beyond the year of his retirement (1956).

Even though my formal supervision was at an end, I was able to rely, for advice and criticism, on the generosity of Prof. N.C. Scott, who subjected some of the material to a searching scrutiny that extended even to details of punctuation; it was to meet his criticisms that I was obliged to re-cast the whole of the Tone statement (21212). I am well aware that such careful criticism reflects a very considerable contribution in time and energy that he was under no formal obligation to make, and my gratitude is all the greater.
THE PHONOLOGY OF THE GRAMMATICAL CONSTITUENTS
OF VERBAL-PHRASE WORDS IN SPOKEN TIBETAN
(LHASA DIALECT)

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(The Phrase)

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Verb

Flexion

Colligation with Verbal Particle

Negative Particle

Interrogative Particle dang

Imperative Particle dang/da

Non-Sentence-final Particle de'i/te/ta'i/'das/da'i

Dubitative Particle gro/'gro

Imperative Particle do

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Verb not colligated with Verbal Particle

Colligation with Nominalizing and Nominal Particle

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Prosodic Systems dealing with Labial and associated Features

Labialization

Vb. + Part.

y

w

e

Part.

Fronting (f, ŋ)

Rounding (r, ř)

Palatalization (y, ĭ)

Prosodic Systems dealing with Vowel-closure and associated Features:

Closure

Main/Aux. Vb. + Part.

Vb. (Comp.) + Part., or Part.

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### Pitch

- - - \ \ \ \ \ \ - - pause ---