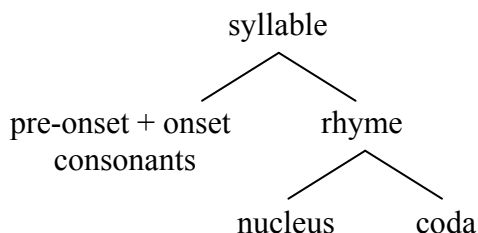# *Lesson 3*

The Rhyme of the Syllable

❖ 3.1 The Rhyme

3.1 Overview

In Lesson 2 we introduced and analyzed all the consonants in Lhasa Tibetan that can appear in the onset position of a syllable. The structure of a syllable is repeated below:


We differentiated true onset elements from pre-onset elements and analyzed how the pre-onset affects the pronunciation of the onset and the tone it denotes.   In traditional Tibetan orthographic terms, the onset may be a single root letter or a root letter subjoined by one of the four letters ར, ཡ, ལ, ཝ; the pre-onset element is either a superfix or a prefix or both.

In this lesson, we will analyze the other branch of the Tibetan syllable, the rhyme. As shown in the diagram above, the rhyme consists of two elements: in the center of a syllable is the nucleus, a single vowel. At the right-end, following the vowel in the syllable final position, is the coda. The nucleus is expressed in writing by one of the four vowel diacritics or left empty when it is [a]. The coda position, in Old Tibetan, can accommodate up to two consonants. In the traditional terminology the first consonant in the coda is called the suffix (རྗེས་འཇུག) and the additional one is called the post-suffix (ཡང་འཇུག). The suffix and the post-suffix were believed to have been pronounced as spelled, but much has changed since then. Many of the consonants in the coda position are no longer pronounced in modern Lhasa Tibetan, even though the coda from Old Tibetan is fairly faithfully preserved in the orthography. The gradual silencing of the coda may potentially create a huge number of homophones in the language (just imagine the disaster of *cat*, *cad*, *cap*, *cab*, *car*, and *card* all merging into *ca*), which would definitely cause serious communication problems. That, of course, did not happen. The consonants in the coda position, some of which have disappeared entirely and some on their way out, successfully transformed the phonological system of Tibetan in three significant ways: (i) the vowel system is enriched from the basic five [a, e, i, o, u] to eight (adding [ɛ, ø, ü]); (ii)

the original two-tone (H vs. L) system is enriched to a full-fledged four-tone system; (iii) the rhyme now contrasts in length (long vs. short).

Considering that language evolution is a long and continuous process that took centuries or even millenniums to create significant changes in the system, the above-three aspects in Lhasa Tibetan are truly remarkable. What is even more remarkable (and learners should be appreciative for that) is the faithful preservation of the coda in the orthography. The correspondence between the modern pronunciation in Lhasa Tibetan and the orthography from Old Tibetan is so systematic that, when compared to the English or French spelling and its pronunciation, learners should find the pronunciation rules in Tibetan much easier to follow, even though the orthography was not meant for the new system.

Given below is a general overview of what is encoded in Tibetan orthography. From the left, one sees that a pre-onset element can do two things: deaspirate the third column obstruents (stops and affricates) and raise the tone of sonorants (nasals, liquids, and glides) from LL to HH. That was discussed in detail in Lesson 2. From the right, one sees that a coda element can do three things: on the segmental tier, it may change the quality of the vowel (umlauting) or lengthen the vowel. On the tonal tier, it bends the high tone downward or the low tone upward and creates contour tones. These three effects are the focus of this lesson.
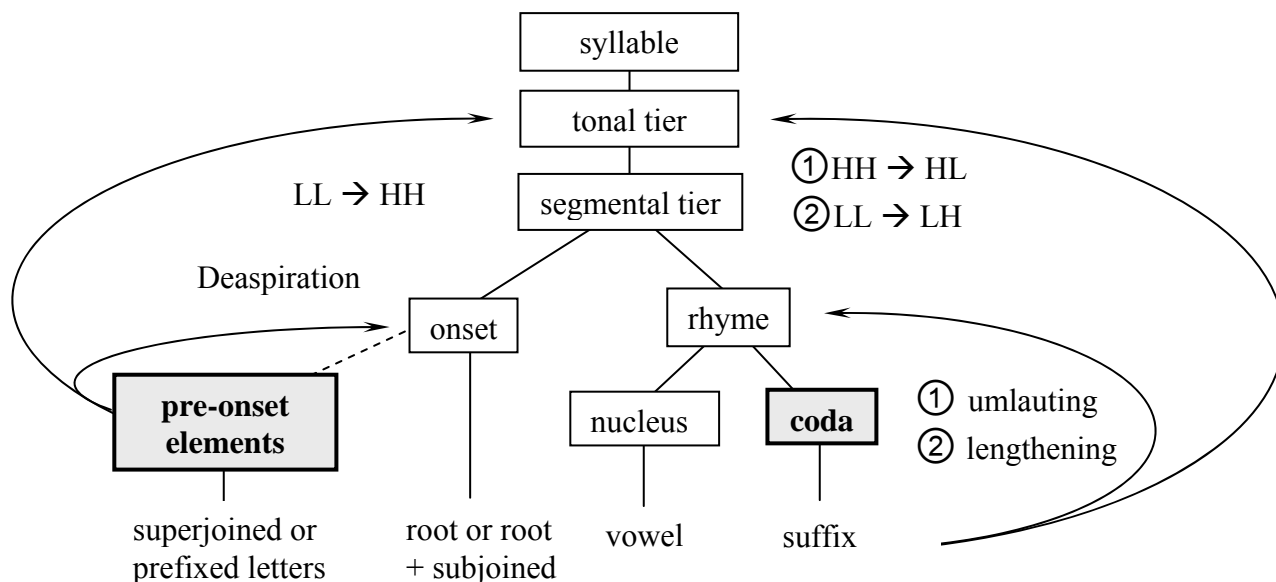
❖ 3.2 Effects of the Coda

There are only ten consonants that can appear in the coda of a Tibetan syllable as the first or sole element. In additional, ད and ས can also serve as the post-suffix in the coda. The ten suffixes are ག, ང, ད, ན, བ, མ, འ , ར, ལ, and ས. འ is a dummy coda that is required for pure orthographic reasons and has no phonetic value nor any impact on the rhyme. The rest can be divided nicely into two groups, namely, the four obstruents (ག, བ, ད, ས)

and the five sonorants (ལ, ན, ར, མ, ར). In terms of place of articulation, four alveolars
(ད, ས, ན, ལ) also form a natural group. The effects of the coda can be summarized
succinctly as follows: (1) An obstruent (k, p, t, s) creates a contour tone from the original
level tone. (2) A sonorant (l, n, ng, m, r) creates a long rhyme. (3) An alveolar (d, s, l, n)
causes umlauting (fronting) of the vowel in the nucleus. It would be more convenient if
the traditional alphabetical order of the ten suffixes is rearranged into natural groups, as
shown below, to show the three effects. The effects of the post-suffix will be discussed in
3.4.

Effects of the Coda
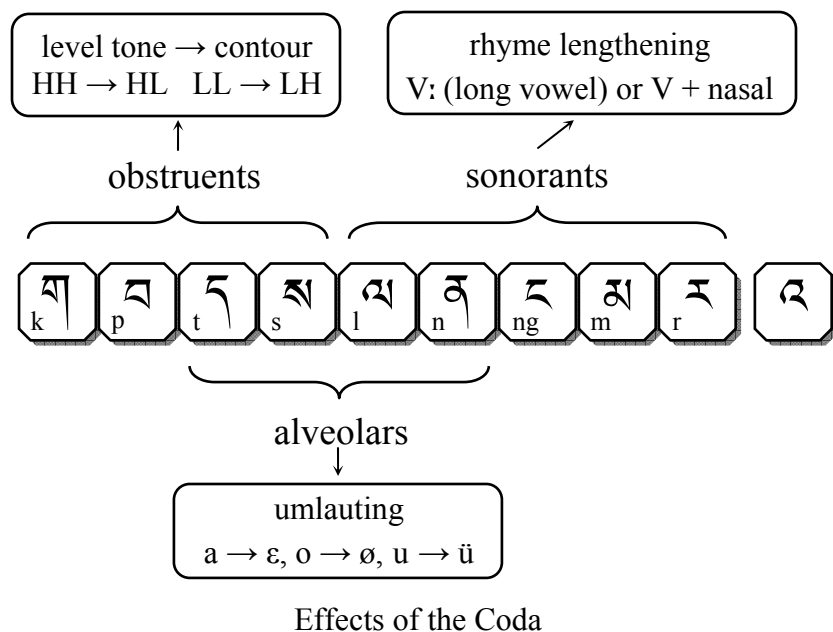
3.2.1 Contour tones

So far we have encountered only the two level tones: high and low. The four
obstruent suffixes ག, བ, ད, ས, once pronounced [k, p, t, s] in the coda, are now in Lhasa
Tibetan either greatly weakened or completely silent. However, they create a significant
change in the tonal system. A high tone HH (55 or 54) with a coda filled with one of the
four obstruents is pronounced with a sharp fall (52). A low tone (12 or 113) with such a
coda becomes a rising tone LH (132). Recall that the speaker's effort to maintain a flat
low portion of 12 or 113 indicates that the nature of the tone is low (LL) and the rising
part is the tail. Regarding the new contour 132, also recall that we analyze the longer
portion (13 part of the 132) of the syllable as the main body, reflecting its LH nature,
whereas the shorter and weaker portion (32), audible in the syllable's citation form, as the
unintended tail. Now, ཚ [cʰā] and ཚག [cʰà] contrast in their tones (high level vs. falling)
and not by how the syllable ends. The final ག [k] in ཚག [cʰà] has weakened to a glottal
stop in the careful speech of some Lhasa speakers or silent in casual speech. Glottal stop
or none, the distinction of the two syllables now resides in the different tonal patterns.
Likewise, དོ [tʰŏ] (LL, 12) and དོག [tʰó] (LH, 132) also contrast in the tonal pattern rather

than the final consonant. The "tone bending" effect of the obstruent suffixes can be visualized as follows:

Effect of Obstruent Suffixes ག, བ, ད, ས
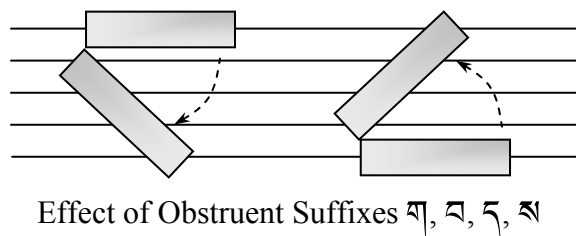
Together with the original two level tones, now Lhasa Tibetan functions with a complete four-tone system as we discussed earlier in Lesson 1.

3.2.2 Umlaut vowels

The four alveolar consonants ད, ས, ན, ལ, when in the coda position, trigger a change in the preceding vowel in the nucleus position. The change is a common process of vowel fronting, or umlauting, where the three back vowels [a, o, u] become [ɛ, ø, ü], their frontal counterparts. The three new vowels enrich the original five-vowel system to a total of eight vowels. This enrichment was necessary as syllables such as ཕ [pʰā] and ཕལ [pʰɛ̄ː], at the loss of pronunciation of [l] in the coda, now contrast mainly by their vowels. (The lengthening of the vowel [ɛ̄ː] will be discussed shortly.)

Note that the first two members of this umlaut-triggering alveolar group ད and ས also belong to the tone-bending obstruent group. This means that ད or ས as a coda changes the vowel quality and the tone simultaneously. For example, while ཕལ [pʰɛ̄ː] remains a high tone, ཕད [pʰɛ̂] has a falling tone, on top of the effect of umlauting. More examples: (Note that the examples involving the suffix ད or ས exhibit umlaut and tone change.)

(1) ཟས [sɛ̂] vs. ཟ [sǎ]

(2) མིད [mí] vs. མི [mǐ]

(3) ཕུད [pʰǜ] vs. ཕུ [pʰū]

(4) དེད [tʰé] vs. དེ [tʰě]

(5) ཚོས [cʰ̀ø] vs. ཚོ [cʰō]

Examples (6) to (10), with the suffix ལ or ན, exhibit umlaut and vowel lengthening but no tone change.

(6) ཚོན [tsʰø̄ːn] vs. ཚོ [tsʰō]

(7) ཤེན་ [shʰēːn] vs. ཤེ [shʰē]

(8) སིལ་ [sīː] vs. སི [sī]

(9) ལན་ [lĕːn] vs. ལ [lă]

(10) ཕུལ་ [pʰüːː] vs. ཕུ [pʰū]

3.2.3 Long rhyme

Languages such as English make no distinction between a long vowel and a short vowel. It is always the vowel quality that provides the contrast. Therefore, even though the vowel [i] in *lead* is longer than the [ɪ] in *lid*, the contrast lies mainly in the different qualities between [i] and [ɪ], not the difference in duration. In fact, native speakers of English tend to ignore the difference in duration, unable to hear, for instance, that the vowel [i] in *feed* is longer than the same vowel in *feet*. In some languages such as Japanese, the duration of the vowel is extremely important because two syllables of the same segments, for example, [mo] (short) and [moː] (long) can contrast in meaning because of their difference in duration just like English words *lake* and *lack* in vowel quality. The duration of a Japanese syllable can be measured as one-unit long or two-unit long, the unit being known as a <u>mora</u>. A Japanese syllable ending with a long vowel is two-mora long, or bimoraic, a vowel + nasal rhyme is also two moras in duration. For instance, [mo] is one-mora long; [moː] and [mon] are both bimoraic. What is common between [moː] and [mon] is that both have a long rhyme, as opposed to the short rhyme in [mo].

As Lhasa Tibetan evolved into its current stage, the length of the vowel has become a distinctive feature. The five sonorant suffixes (ལ, ན, ར, མ, ར) make the syllable longer than a syllable without a suffix or with an obstruent suffix (ག, བ, ད, ས). This development is typical in human languages. For example, the English words *fey* [fe], *fate* [fet] are shorter than *fail* [fel], *feign* [fen] and *fame* [fame]. Now imagine that the coda [l] of *fail* has gone silent. One possible result is that the two words *fey* and *fail* now simply merge as homophones. The other possibility is to preserve the original longer duration of *fail* to contrast with the shorter *fey* (i.e. *fail* [feː] vs. *fey* [fe]). This second scenario is exactly what took place in Lhasa Tibetan. The orthography still records the original pronounced suffixes ལ and ར, but they are now (largely) silent, leaving their trace by lengthening the preceding vowel. The following pairs indicate that the length of the vowel has become contrastive.

(1) ཏར་ [tāː] vs. ཏ [tā]

(2) པར་ [pāː] vs. སྤ [pā]

(3) མར་ [mǎː] vs. མ [mǎ]

It is important to know that the lengthened vowel is not just slightly longer than the corresponding short one but rather double in length. Hu's investigation in 1979 indicates that long rhymed syllables average 0.32 seconds in duration vs. the 0.13 to 0.18 seconds

for various types of short syllables, an experimental fact that supports the moraic analogy drawn from Japanese.

Recall that, of the five sonorants, ལ and ན, being alveolar, also trigger umlauting in the vowel; therefore, syllables with a suffix ལ or ན may also contrast with ones without in both vowel length and vowel quality. For example:

(4) དོལ [tö̈:] vs. སྟོ [tō]

(5) ཕལ [pʰɛ̈:] vs. ཕ [pʰā]

(6) ལན [lɛ̈:n] vs. ལ [lǎ]

(7) བདུན [tü̈:n] vs. གདུ [tǔ]

Note that the alveolar nasal suffix ན lengthens the vowel and nasalizes it at the same time, so much so that the [n] in the coda position becomes very weak in some words. For ease of notation, we will keep the [n] in the coda for phonetic transcriptions in this textbook, but readers should bear in mind that the vowel preceding ན is nasalized.

The other two nasal sonorants, ང and མ, not being alveolar consonants, do not trigger umlauting but they do make the rhyme long (bimoraic). They are pronounced as a regular syllable final nasal [ng] and [m], respectively. Examples:

(8) ཁམ [kʰā:m] vs. ཁ [kʰā]

(9) ཐིམ [tʰī:m] vs. ཐི [tʰī]

(10) གོང [kʰö̌:ng] vs. གོ [kʰö̌]

Although the actual length of the vowel before ང or མ is not lengthened, averaging 0.16 seconds just like a short syllable, the entire rhyme (V+nasal) approaches 0.32 seconds, exactly the same duration of a long vowel (V:). Thus, all five sonorant suffixes ལ, ན, ང, མ, ར create a long rhyme in their own way: ལ and ར lengthen the vowel but are not pronounced; ན lengthens and nasalizes the vowel and is pronounced; finally, ང and མ do not lengthen the vowel but, because they are pronounced, make the rhyme long. We will see that the notion of long rhyme is important when we later discuss the effects of the post-suffix and one of the tone sandhi rules.

3.2.4 The Two Post-Suffixes ས and ད

Historically, there were two post-suffixes: ད and ས, which are really the two variants of the same morpheme attached to verbs. ད appears after alveolar suffixes such as ན་ར་ལ, while ས is found attached to one of the four non-alveolar suffixes ག, བ, ང, མ.

The post-suffixes ད and ས, being alveolar obstruents, should have the same effects on the rhyme as the suffixes ད and ས, changing the level tone to a contour tone (tone bending)

and the back vowels [a,o,u] to [ɛ,ø,ü] (umlauting). Because ད and ས, being post-suffixes, are never adjacent to the vowel; they do not seem to have any direct influence on the vowel. Therefore, there is no umlauting by the post-suffix. All umlaut vowels are created by an alveolar first-suffix (ད, ས, ན, ལ). On the tonal tier, the post-suffix should exhibit the tone-bending power just as one has observed in the four first-suffix ག་བ་ད་ས. In words such as ཚོགས [tsʰà], རོགས [ró], ཤུབས [shùp], ལོབས [lóp], the tone has already changed to falling or rising due to the first-suffix ག and བ, so the post-suffix has no impact on the pronunciation. The four examples above have identical pronunciations of ཚོག [tsʰà], རོག [ró], ཤུབ [shùp], ལོབ [lóp]. The post-suffix exhibits its tone bending effect when attached to a first-suffix that does not affect the tone, namely, one of the five sonorants ལ, ན, ད, མ, ར. Given the complementary distribution of ད and ས, the possible combinations are -ལད, -ནད, -ངས, -མས, and -རད. Here are some examples:

(1) ཕྱིནད [cʰìn] vs. མཆིན [cʰīːn]

(2) ཁམས [kʰàm] vs. ཁམ [kʰāːm]

(3) ཡོངས [khòng] vs. ཡོང [khōːng]

(4) ཉམས [nyám] vs. ཉམ [nyăːm]

Clearly, the words on the left column have contour tones (rising or falling) with a post-suffix, while the right column all have level tones. There is another significant change that comes as a side-product of the tone change caused by the post-suffix. Recall that sonorant suffixes (ལ, ན, ད, མ, ར) make the rhyme long (bimoraic); yet, contour tones in Lhasa Tibetan are short in duration (i.e. one mora). Thus, adding a post-suffix to a nasal coda shortens the duration of the syllable considerably while changing the level tone to a contour. For ease of differentiation, we will notate this moraic contrast by marking the long rhymed syllables with a long vowel (e.g., ཁམས [kʰàm] vs. ཁམ [kʰāːm]) in this textbook.

From the above discussion, we can see that ད and ས cause the same tonal effect. At the time when the suffix ད had become silent from the post-suffix position, its allomorph ས was still pronounced. An unwise orthographic reform rule was made, which decided to leave out the silent post-suffix ད from the writing while keeping the same morpheme ས. This decision was truly unfortunate because, now that both ད and ས are silent in modern Lhasa Tibetan, we can only predict the contour tone from syllables ending with the post-suffix ས. Those which ended with the post-suffix ད no longer offer any orthographic clue. For instance, the example in (1) ཕྱིནད [cʰìn] 'went' is changed in modern writing as ཕྱིན

[cʰìn] (falling tone, short rhyme) due to the orthographic reform mentioned above. As one can see, from the current spelling, it is easy to be mispronounced as *[cʰīːn] (high level tone, long rhyme). The learner simply needs to remember these "irregular" pronunciations with an invisible ད. This bit of inconvenience should not bother the learners of this textbook, for we will note the special pronunciation of this type of words (words with the invisible ད) at their first appearance in the textbook.

3.3 Remarks on the Ten Suffixes

3.3.1 ག and བ: contour tone

The non-alveolar stops ག and བ only cause tone changes from level to contour. The status of the bilabial suffix བ is stable. It is consistently pronounced as an unreleased [p], for example, ཁབ [kʰə̀p], ལབ [lə́p], ཤིབ [shʰìp], ཡིབ [yíp], སུབ [sùp], རུབ [rúp], ཐེབ [tʰèp], དེབ [tʰép], ཤོབ [shòp], གོབ [kʰóp], etc. Note that when the vowel is [a], such as in the first two syllables, བ raises the [a] slightly to sound like a schwa [ə]. This is not a contrastive new phoneme in the system, but we will notate this sound variation for the convenience of the reader. Another phonetic effect created by the unreleased [p] is the very short rhyme of the V + བ sequence, averaging 0.12 seconds, much shorter than all the other short rhyme syllables.

Compared to བ, the suffix ག is less predictable. In most words, this suffix is reduced to a weak glottal stop [ʔ], so the truly audible difference between ཁ [kʰā] and ཁག [kʰàʔ] is the tone. Some speakers from Lhasa also compensate the loss of ག in the coda position by lengthening the vowel while maintaining the falling tone. For these speakers, words such as སྟག [tà] 'tiger' and ལྕགས [cà] 'iron' are pronounced as [tàː] and [càː], respectively. This lengthening is also observed in disyllabic words such as ཐོག་ཁ [tʰōːkā] 'upstairs' from ཐོག [tʰò] and ཁ [kʰā].

The suffix ག also shows more resilience in some words than others. For example, the suffix ག in གཅིག [cìk] 'one' is preserved in modern spoken form. This is particularly common in disyllabic words (σ₁σ₂) where ག is the suffix of σ₁. Examples: (For tone changes of these examples, see 3.5.2)

   (1) ཚགས་པར [tsʰà] + [pāː] → [tsʰākpāː] 'newspaper'

   (2) ལག་པ [lá] + [pā] → [lăkpā] 'hand, arm'

Colloquial Lhasa Tibetan (Draft), Kuo-ming Sung & Lha Byams Rgyal

In some disyllabic combinations, especially when the second syllable is the morpheme པོ [pō], ག may even optionally (in casual speech) be pronounced as the onset of the second syllable, replacing the original [p]. (One can also view this phenomenon as the weakening of [p] and the consequent resyllabification of the [k] in the coda of σ₁ to be the onset of σ₂.) For example:

(1) ཡག་པོ [yăkpō] alternates with [yăkō] 'good'

(2) ཐིགས་པོ [tʰīkpō] alternates with [tʰīkō] 'accurate, correct'

These unpredictable pronunciations are all marked in our phonetic transcriptions. Finally, recall that the two suffixes ག and བ also take the post suffix ས, but གས and བས affect the tone just like the single suffix ག and བ.

3.3.2 ད and ས: contour tone and umlaut

Being alveolar obstruents, the two suffixes ད and ས simultaneously cause umlauting on the preceding vowel and the contour tone. Unlike ག and བ, which can still surface in some phonological context as we just described, ད and ས, a faint glottal stop for some and completely silent for others, never surface as [t] and [s] in any phonological context Their trace is audible only in the contour tone and the possible umlaut vowel they produce: ཆད or ཆས [cʰɛ̀], ཟད or ཟས [sɛ́], ཤིད or ཤིས [shì], མིད or མིས [mí], ཕུད or ཕུས [pʰ̀ü], ལུད or ལུས [lǘ], ཚེད or ཚེས [tsʰè], དེད or དེས [tʰé], ཐོད or ཐོས [tʰ̀ø], ཡོད or ཡོས [yø̀].

There has been a widely circulated idea that umlaut vowels in Tibetan are all long. This assumption is incorrect, given the acoustic phonetic experiment done by Tan and Kong (1991). In their study, umlaut vowels created by alveolar obstruents ད and ས pattern with short rhyme syllables with an average duration of 0.18 seconds, as opposed to the umlaut vowels created by alveolar sonorants ལ and ན, which are almost twice as long, for example, དོལ [tø̄ː] and དོན [tø̀].

Finally, ད and ས do not take post-suffixes, which would have been themselves.

3.3.4 ར: vowel lengthening

Generally speaking, the suffix ར lengthens the vowel but is not pronounced itself. It does not trigger umlauting nor affect the tone. In careful "literary reading", the lengthened [V:] can be restored to [Vr], but whether with the colloquial [V:] or the literary [Vr], the rhyme remains long. Note that the [r], when pronounced, is either like an approximant [r] in the English word *car* or a slight trill. While the majority take the long vowel [V:] for the spoken form, such as པར [pāː] 'over there'; it is not uncommon that some individual

words tend to stick to the [Vr] version, such as པར [pār] 'photo', ཤར [shār] 'east', པི ར [pīr] 'Chinese brush pen'. It is difficult to predict.

In some disyllabic words (σ₁σ₂) where ར is the suffix of σ₁, the [r] sound habitually surfaces. Again, there is no rule to predict when this [r] is pronounced. The word མར [mǎ:] 'butter' offers a number of good examples:

(1) མར་སྐ [mǎ:] + [kā] → [mǎrkā] 'box for keeping butter' (with [r])

(2) མར་གམ [mǎ:] + [kà] → [mǎ:kà] 'a type of butter container' (with long vowel)

(3) མར་དཀར [mǎ:] + [kār] → [mǎrkār] 'white butter' (with [r])

(4) མར་གྱིན [mǎ:] + [trī:n] → [mǒ:trí:n] 'vegetable oil' (with long vowel)

(5) མར་ནག [mǎ:] + [nǎ] → [mǎrnà] 'vegetable oil' (with [r])

The best way to deal with the situation is to learn Lhasa Tibetan's preference, as shown in our phonetic transcriptions, on a case by case basis.

The suffix ར used to take the post-suffix ད, written in Old Tibetan as the coda རད, e.g., ཐརད 'relieved from'. It is no longer written in Modern Tibetan and there seems to be no known cases where this (invisible) ད causes any change on the pronunciation.

3.3.3 ལ and ན: umlaut and vowel lengthening

Alveolar sonorants ལ and ན trigger umlauting on back vowels [a, o, u] and lengthen all vowels. Only in careful literary reading, the [l] may be pronounced. ལ and ན do not affect the tone. Examples: ཁལ [kʰɛ̄:], ནུལ [nyɛ̆:], ཤིལ [shī:], སྲིལ [sǐ:], སུལ [sū:], བུལ [pʰǔ:], ཚེལ [tsʰē:], མེལ [mě:], ཐོལ [tʰø̄:], ནོལ [nyø̆:]. In the case of the suffix ན, it nasalizes the vowel while itself being pronounced in the coda. Since the nasalization is entirely predictable from the [n] in the coda, we opt not to add more diacritic markings on the vowel, which already carries a tone mark. Examples of ན as the suffix: ཕན [pʰɛ̄:n], མན [mě:n], ཆེན [cʰī:n], ཡིན [yǐ:n], ཤུན [shū:n], ཡུན [yǔ:n], ཤེན [shē:n], ལེན [lě:n], ཐོན [tʰø̄:n], གོན [kʰø̆:n]. That the vowel preceding ན is marked long may be considered by some learners redundant, but it is intended to remind the learner that the rhyme is long. Another reason for the [:] marking is that the post-suffix ད, now omitted from orthography, makes the vowel short and change the tone in certain words. Here is our favorite example: ཕྱིན [cʰìn] 'went', shown with falling tone and short vowel, caused by the once overt post-suffix ད.

3.3.5 ར and མ: rhyme lengthening

The two nasal sonorants ང and མ are pronounced in the coda position. They do not lengthen the vowel per se but nonetheless make the rhyme long simply by adding themselves to it. (The vowel before [m] or [ng] measures 0.16 seconds, identical to the length of vowel in ཁ [kʰā], yet the whole syllable of ཁམ [kʰāːm] measures doubly long.) We mark the long rhyme syllables with the suffixes ང and མ as [Vːm] and [Vːng], even though the vowel itself is not particularly long. Examples: ཐང [tʰāːng], ཤིང [shīːng], མིང [mĭːng], ཁུམ [kʰūːm], ཟེམ [sĕːm], etc.

As we commented in the previous section, these two suffixes are the ones that take the post-suffix ས and receive an impact on the tone and the duration of the rhyme. Syllables which end with ངས or མས all have a contour tone and a short rhyme, with [Vm] and [Vng] shrinking to a mere 0.20 seconds. See the examples in 3.2.4.

3.3.6 འ : orthographic purpose only

The suffix འ, strictly speaking, is not a suffix at all.   It is required by Tibetan orthography as a spelling convention for readers to identify the root letter of the syllable. The raison d'être of the suffix འ rests solely in a situation when two letters, say A and B, are horizontally adjacent to each other without a vowel diacritic to indicate which letter of the two is the root. Presumably, if A is a potential prefix for B and at the same time B is a potential suffix for A, then the combination AB is ambiguous in that one may take A as the prefix and B the root letter or A as the root letter and B the suffix. The reason of adding འ to the string AB is to remove this ambiguity. For example, མ and ད together (མད) presents the ambiguity problem just discussed. It would be equally possible to read it either as [tă], taking མ as prefix or as [mɛ́] taking ད as suffix. Tibetan orthographic rules stipulate that: (i) A syllable of the shape AB, without any vocalic marking by the vowel diacritics, the first letter (i.e. A) is the root letter. (ii) In case that B is the root letter, འ must be added. The two rules are summarized below:

root suffix   prefix root
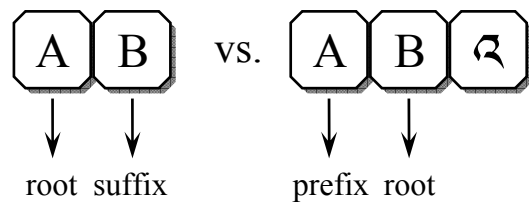
Given the above orthographic rules, the syllable མད becomes unambiguous. It must be read as [mɛ́]. If ད were to serve as the root letter, the syllable would need to be spelled as མདའ [tă]. Note that there is no phonetic value of the suffix འ, which is different from the prefix འ, a true (although latent) nasal consonant that could surface. On a side note, the

rule is originally meant to clarify the root letter from ambiguous combinations discussed here, it should not be required for non-ambiguous AB sequence, such as བག, where only ག can be taken as the root because it cannot be a suffix. Yet, the rule stipulates that the suffix འ be added, rendering བགའ, creating a little harmless redundancy in the spelling.

Note that, when the vowel is marked by a diacritic, one need not, in fact cannot, use the suffix འ, for the vowel diacritic already identifies the root letter, making it pointless to add འ. For example: དར has the shape of AB, ད is a potential prefix and ར is a potential suffix, but according to the rules of orthography, the syllable is unambiguously read as [thǎ:], with the first letter interpreted as the root letter. དེ, on the other hand, treats the second letter as the root letter simply because it has a vowel diacritic above it. It reads as [pē] and no suffix འ is needed nor allowed.

Sometimes one finds འ with a vowel diacritic such as འི and འུ appearing in a suffix position. They are not suffixes but rather separate morphemes contracted in writing to the open syllable in front. We will discuss these special cases in 4.2.1.

❖ 3.7 Oral Spelling (II): Syllables with Suffix

In the oral spelling section of Lesson 2, we learned two words འོག [wò] and བཏགས [tà]. The former links the prefix and what follows, the latter signifies the vertical "hanging" relation of two letters (superfix and root or root and subscript). Review: དགྲ 'enemy' spells [tʰǎwò | kǎ rǎtà trǎ].

The sequence of the vowel and the suffix(es) in the coda does not require a relation-defining word in the oral spelling of Lhasa Tibetan. When the vowel is the default [a], the spelling cannot be easier, for example: ཕལ spells [pʰā lǎ pʰɛ̀:], the effect of umlaut and vowel lengthening are duly noted in the final output [pʰɛ̀:]. If there is a tone change, it is also reflected in the output, for instance, ཐག spells [tʰā kʰǎ tʰà]. The tone of the suffix itself becomes neutral (unstressed and therefore reduced) during the oral spelling, so the above two examples can be better noted as [pʰā la pʰɛ̀:] and [tʰā kʰa tʰà]. However, when there is a post suffix ས in the syllable, the first suffix becomes somewhat stressed: ཐགས spells [tʰā kʰǎsa tʰà] and the ས loses its tone. Another example, མཚམས spells [mǎwò tsʰā mǎsa tsʰàm]. Note that the post-suffix ས causes the falling tone. Recall that the suffix འ is required only in an ABའ sequence, the spelling reads A-wò-B-a plus output. For example, བགའ spells [pʰǎwò kā a kā].

When the vowel is not the default [a] and there is a diacritic that needs to be spelled out, the oral spelling becomes tricky. Take བུལ for example. The spelling is expected to

be (the incorrect) *[pʰă shŏpcū pʰŭ la pʰü̆ː], [pʰŭ] being the pronunciation of ধ and the

input to the suffix ལ, which then triggers umlauting and renders the final output of [pʰü̆ː].

The correct spelling is [pʰă shŏpcū **pʰü̆ː** la pʰü̆ː], with the final output said twice, once
before the suffix(es) and once more at the end. In other words, the speaker jumps the gun
right after the diacritic vowel by giving the final reading (adding all the effects on the
rhyme the suffix can cause) before he even spells the suffix. Here is another example: ཚོས

spells [cʰā nărō **cʰ**ǿ sa cʰǿ] and not *[cʰā nărō cʰō sa cʰǿ], the intermediate stage ཚོ [cʰō]

being "jumped". More examples:

(1) ཁུངས: [kʰā shŏpcū kʰòng ngăsa kʰòng] (post-suffix causes the falling tone)

(2) ལེན: [lă trĕngpō lĕːng na lĕːng] (vowel lengthening)

(3) མིས: [mă kʰĭkū mí sa mí] (contour tone)

(4) གོམས: [khă nărō kʰóm măsa kʰóm] (contour tone)

Obviously, with regard to "jumping the gun", the spelling rule treats words without a
vowel diacritic differently. In the following pair of words, even though the suffix ར

lengthens the vowel in both cases, only the second word འབུར, with the vowel [u], gets to

repeat the output twice [kʰūː ra kʰūː].

(5) བགར spells [pʰăwò kā ra kāː] (not *[pʰăwò kāː ra kāː])

(6) འབུར spells [ăwò kʰā shŏpcū kʰūː ra kʰūː] (not *[kʰū ra kʰūː])

Besides this minor inconsistency, the oral spelling is an excellent way for a learner to
remember the orthography. The effects of the prefix/superfix (deaspiration and tone
change) and the effects of the suffix and post-suffix (contour tone, umlaut, long rhyme)
are all reflected in the oral spelling. Practicing oral spelling will also help internalize
these phonological changes. The following examples offer practice, from prefixes to post-
suffixes.

(10) གྱུང [kā rătà trā | shŏpcū trōːng nga trōːng]

(11) བསྙིབས [pʰăwò sā lătà lā | trĕːngpō lèp | pʰăsa lèp]

(12) སློགས [sā kătà kă | yătà kyă | nărō kyó | kʰăsa kyó]

(13) སྦུང [sā pătà pă | yătà că | nga căːng]

The last one, སྦུང, a bilabial with ཡ་བཏགས presents one of the most challenging cases in

oral spelling for foreign learners. We shall have a few more for practice:

(14) ཕྱོགས [pʰā yătà cʰā | nărō cʰò | kʰăsa cʰò]

(15) དགྲིབས [tʰăwò wā | yătà rā | kʰĭkū rìp | pʰăsa rìp]

(16) དཔུངས [tʰăwò pā | yătà cā | ngăsa càng]

(17) དགྲིན [tʰăwò wā | yătà yā | kʰĭkū yī:n na yī:n]

To conclude the oral spelling exercise, let's try the "full-house" syllable བསྒྲིགས: [pʰăwò sā | kătà kă | rătà tră | kʰĭkū trí | kʰăsa trí].

3.2.7 Summary

3.2.7.1 Pronunciation of all rhymes: vowel changes are indicated with shading.

Manner		Obstruents				Sonorants			dummy
Place					Alveolars				

suffix effect	ག	བ	ད	ས	ལ	ན	ར	ང	མ	འ
pronounced	(k)	-p	-	-	(l)	-n	(r)	-ng	-m	-
umlaut	-	-	✓	✓	✓	✓	-	-	-	-
long rhyme	-	-	-	-	✓	✓	✓	✓	✓	-
tonal change	✓	✓	✓	✓	-	-	-	-	-	-

		ག	བ	ད	ས	ལ	ན	ར	ང	མ	འ
ཨ [a]	H	[à]	[ə̀p]	[ɛ̀]	[ɛ̀]	[ɛ̄:]	[ɛ̄:n]	[ā:]	[āng]	[ām]	[ā]
	L	[á]	[ɔ́p]	[ɛ́]	[ɛ́]	[ɛ̌:]	[ɛ̌:n]	[ă:]	[ăng]	[ăm]	[ă]
ཨི [i]	H	[ì]	[ìp]	[ì]	[ì]	[ī:]	[ī:n]	[ī:]	[īng]	[īm]	[ī]
	L	[í]	[íp]	[í]	[í]	[ĭ:]	[ĭ:n]	[ĭ:]	[ĭng]	[ĭm]	[ĭ]
ཨུ [u]	H	[ù]	[ùp]	[ǖ]	[ǖ]	[ǖ:]	[ǖ:n]	[ū:]	[ūng]	[ūm]	[ū]
	L	[ú]	[úp]	[ǘ]	[ǘ]	[ǚ:]	[ǚ:n]	[ŭ:]	[ŭng]	[ŭm]	[ŭ]
ཨེ [e]	H	[è]	[èp]	[è]	[è]	[ē:]	[ē:n]	[ē:]	[ēng]	[ēm]	[ē]
	L	[é]	[ép]	[é]	[é]	[ě:]	[ě:n]	[ě:]	[ěng]	[ěm]	[ě]
ཨོ [o]	H	[ò]	[òp]	[ø̀]	[ø̀]	[ø̄:]	[ø̄:n]	[ō:]	[ōng]	[ōm]	[ō]
	L	[ó]	[óp]	[ǿ]	[ǿ]	[ø̌:]	[ø̌:n]	[ǒ:]	[ǒng]	[ǒm]	[ǒ]

3.2.7.2 Orthography: distribution of the alphabet

Literate Tibetan speakers consciously know which letter of the alphabet goes to which position in the syllabic writing. They learn to memorize the distribution of letters in first grade. The following chart shows their distribution.

letter	suffix	prefix	superjoined	subjoined	post-suffix
ག ད བ མ འ	✓	✓	-	-	-
ན ང	✓	-	-	-	-
ར ལ	✓	-	✓	✓	-
ས	✓	-	✓	-	✓
ཡ ཝ	-	-	-	✓	-

Alternatively, the information can be translated into the diagrams below, which should be able to help the learner visualize this bit of linguistic knowledge about the orthography. The letters listed in each number have the distribution in the shaded positions. Note that all thirty letters can appear in the position of the root letter.

(1) ག ད བ མ འ

(2) ན ང

(3) ར ལ

(4) ས

(5) ཡ ཝ
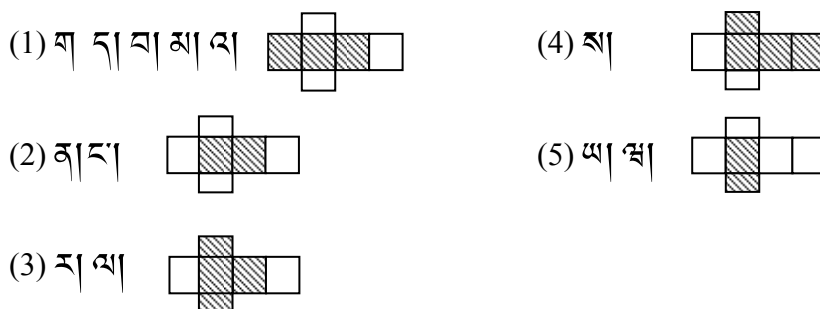
❖ 3.4 Finding the Root

Finding the root letter is very simple. The first and foremost principle is to spot a letter X that carries a vowel diacritic or is joined (i.e. superjoined or subjoined) by another letter. If such a letter exists in the syllable, it is the root letter. The root letter (plus the subjoined letter if any) is the onset of the syllable.

Tibetan makes no diacritic marking for the vowel [a]. This design in writing, although following the principle of economy, in fact creates a little complication for learners to find the root letter when the vowel is [a]. Again, if the root letter is superjoined or subjoined by another letter, the root letter becomes easy to spot, as we just mentioned. However, if there is no sub- or superjoiners to help out, how does one identify the root letter from a completely linear sequence? Here is a simple set of rules to remember:

(1) If the sequence is AB, A is the root letter.
(2) If the sequence is ABCD, B is the root letter.
(3) If the sequence is ABC, B is the root letter, unless C is the post-suffix ས and

B is one of the four letters: ག, ར, བ, and མ, in which case, A is the root letter.

We have discussed rule (1) in section 3.2.5 regarding the function of འ as a suffix. Rule (2) simply derives from the fact that there is only one element ས that can follow a suffix, so ABCD must have the shape: prefix-root-suffix-ས.   Rule (3) recognizes the two possibilities that either (i) C is a regular suffix, in which case, B is the root; or (ii) C is the post-suffix ས, indicated by the four compatible suffixes with ས, in which case A is the root. Take གཟའ་པ་སངས *Friday,* for example. The syllable སངས is of the form ABC. There are in fact two ways to tell that it is pronounced [səng] and not [nge] with the first ས (and not ང) being the root letter. First, the rightmost ས follows one of the four suffixes ག་ང་བ and མ, described in (3), so it is the post suffix. Second, the first ས is not one of the possible prefixes, so it has to be the root. Either way of looking at it, the orthography leaves no ambiguity.

Need we say anything about spotting the root letter in a simple syllable like ཀ or ཁ?

❖ **3.5 Foreign Loan Words and Inverted Letters**

Traveling to any part of the Tibetan-speaking world, one will undoubtedly encounter the six-syllable prayer ༀ་མ་ཎི་པདྨེ་ཧཱུྃ། *om mani pad me hom* carved, painted, or written everywhere. In this ubiquitous mantra are some unusual elements that we have not covered so far. These irregular elements in writing are of little practical value in our studies of the modern spoken language, as they are intended as mechanisms to transcribe ancient Sanskrit religious text into Tibetan. One should nevertheless know just enough about them.

Six "new" letters, ཊ, ཋ, ཌ, ཎ, ཥ, and ཀྵ, are created by inverting the letters ཏ, ཐ, ད, ན, ཤ, and ཀ, writing them in a reversed direction. These are intended to mark the so called cerebral consonants (mostly retroflexive alveolars) in Sanskrit. Some Sanskrit long vowels are represented in literary Tibetan by using a small འ beneath a root letter like ཀཱ to denote the increased length of the vowel. For [ee] and [oo], simply double the vowel diacritics to ཀཻ and ཀཽ.   The syllable final [m] in Sanskrit is represented by a small circle on top of the root letter. This is the circle we see in the first syllable of the six-syllable mantra: ༀ.

Sanskrit has aspirated voiced consonants (mostly stops) such as *gh*, *dh*, *bh*, *jh*, *drh*, etc. These are conveniently represented in Tibetan by using ཧ as the subjoined letter, creating combined letters such as གྷ, ཌྷ, ཛྷ, དྷ, བྷ, etc. Words of Sanskrit origin do not really concern the learner unless he or she plans to go on and study religious texts in Tibetan Buddhism. However, it might be worthwhile to learn to discern these irregular written forms from the regular ones.

Non-religious modern foreign loan words are represented by the regular 30 letters. As, we have mentioned, the consonant [f] does not exist in Tibetan, a new combination ཕྷ

having been created to stand for [f].

❖ **3.7 Exercises**

3.7.1 Pronunciation Drill (I): syllables with suffixes བ and ག. Pay attention to the tonal change

(1) དེབ།   (7) ཚགས།   (13) ཐེབས།   (19) ཞིབ།   (25) སྐྱེབས།

(2) མགྱོགས།   (8) ཟིག   (14) འདུག   (20) ལོགས།   (26) རབས།

(3) སྐྱོབ།   (9) ཐིག   (15) ཀྱོབ།   (21) དྲེག   (27) འགྱིག

(4) ཕུགས།   (10) གྲོགས།   (16) གོག   (22) ལག   (28) ཅིབས།

(5) གཡག །   (11) ཕུབ།   (17) གྲིབ།   (23) བཅབ།   (29) འདབས།

(6) གྲུབ།   (12) ལགས།   (18) ཕུག   (24) གཟུགས།   (30) བསླབས།

3.7.2 Pronunciation Drill (II): syllables with suffixes ད and ས. Pay attention to the vocalic and tonal change

(1) སྐད།   (7) ཁྲིད།   (13) ཚོད།   (19) སྐྱིད།   (25) ཚེས།

(2) བོད།   (8) མེད།   (14) དབུས།   (20) བཀུད།   (26) མིད།

(3) དུས།   (9) བས།   (15) སྲིད།   (21) རྗེས།   (27) སྲུས།

(4) ཚོས།   (10) གཞིས།   (16) ནུས།   (22) དགོས།   (28) མཚོད།

(5) ངས།   (11) འབྲིས།   (17) འོད།   (23) རེད།   (29) དུད།

(6) གཉིས།   (12) སུད།   (18) ཀྱུད།   (24) ཤེས།   (30) སྐུད།

3.7.3 Pronunciation Drill (III): syllables with suffixes ན, ལ and the contraction of འི. Pay attention to the vocalic, moraic, and tonal change

(1) ཅེན །   (7) འཛིན །   (13) དགོན །   (19) འབོལ །   (25) དབྱིན །

(2) མདུན །   (8) དཀྱིལ །   (14) ཁུལ །   (20) བདུན །   (26) སྐྱོན །

(3) ཀུན །   (9) གསལ །   (15) དདུལ །   (21) དཔོན །   (27) རིལ །

(4) ཁུལ །   (10) ལེན །   (16) བྲེལ །   (22) སྐུལ །   (28) སྲུའི །

(5) གསོལ །   (11) མན །   (17) ཤེལ །   (23) ངའི །   (29) གོའི །

(6) བལ།   (12) ཁྲོན།   (18) གུན།   (24) ཚན།   (30) དེའི།

3.7.4 Pronunciation Drill (IV): syllables with suffixes ང, ར, and མ. Pay attention to the moraic, and tonal change (when there is a post-suffix).

(1) ཆང་།   (9) ཕོར།   (17) ཁམས།   (25) ཏོང་།   (33) ཁྲིམ།

(2) ཁྱོང་།   (10) རྒྱང་།   (18) གར།   (26) སྒྲིང་།   (34) ཕྲེར།

(3) རང་།   (11) གཟིམ།   (19) ཕོང་།   (27) སེར།   (35) བསམས།

(4) ལམ།   (12) དམར།   (20) འགྲིམ།   (28) དང་།   (36) སྟོངས།

(5) ཡུམ།   (13) སྐོར།   (21) ལུང་།   (29) སྒྱུར།   (37) ཚོམས།

(6) མཉམ།   (14) རིང་།   (22) འདིར།   (30) སེམས།   (38) འཕུངས།

(7) ཨེམ།   (15) ནོར།   (23) འདུར།   (31) ཕུར།   (39) སྒུངས།

(8) ཟེར།   (16) བསམ།   (24) དགོངས།   (32) གསུམ།   (40) སྟོམ།

3.7.5 Tone Discrimination: circle the syllable which has a different tone from others

(1) ཙོམ། རྐུན། པར། གནང་།   (8) མགྱོགས། རིད། ཤེས། ཕྱེད།

(2) བསྐོལ། རྒྱག དུས། ལགས།   (9) བརྒྱད ལམ། འཕྲུག མེད།

(3) ཕོད ཡུག ཐུས། ཚམ།   (10) སྐྱོབ སྟོགས། གཅིག རྒྱུག

(4) བཏང་། ཁོང་། ཁམས། འཕར།   (11) རིང་། སྒྲུངས། བདུན། མིན།

(5) ཡག རྡོད ཚོང་། དགོས།   (12) ཕེབས། མཚོད གཡག འགྲོག

(6) སྐུང་། གནས། པན། སྐོམ།   (13) སྐོན དམར གསོལ། མཆེས།

(7) བསྐུད ཕོད སྐུད སྐོད   (14) ཇིག གྲས། ཁྲིར ཆེན།

3.7.6 Oral Spelling (I): spell out the syllables

(1) ཕུག་ལས།   (5) ཕོད་ཟས།   (9) སྐྱལ་བཟང་།   (13) གཟའ་མིག་དམར།

(2) བཙོ་བརྒྱུད   (6) བརྐུན་འཕྲིན།   (10) རྒྱ་སྐད   (14) ཡང་བསྐྱུར།

(3) དུས་ཚོད   (7) སྒྲིང་རྗེ་པོ།   (11) དབྱིན་ཇི།   (15) དབང་འདུས།

(4) བར་སྐོར།　　(8) སློབ་དཀར།　　(12) བསྐྱན་འརྫོན།

3.7.7 Oral Spelling (II): Listen to the recording and write down the syllables.

(1) ཐུགས་རྗེ་ཆེ།　　(5) སློབ་གྲྭ་བ།　　　(9) བོད་སྐད།　　(13) སྐུ་ཁམས་བཟང་།

(2) སྐུ་གཟུགས།　　(6) ཡར་ཕེབས།　　(10) བདེ་པོ་ཡིན།　(14) དགོངས་པ་མ་ཚོམ།

(3) སློབ་ཚན།　　(7) ཁྱེད་རང་།　　(11) ཡག་པོ་འདུག　(15) བཀྲ་ཤིས་བདེ་ལེགས།

(4) རྐུན་ལགས།　　(8) གང་འདྲ་འདུག　(12) ག་ལེར་ཕེབས།

3.7.8 Identify the Root Letter

(1) སྐྲམ།　　　(4) དབྱར།　　(7) མཉམ།　　(10) བསྐྱགས།　　(13) སྐྲད།

(2) བཞག　　　(5) སངས།　　(8) འགངས།　　(11) ལྡངས།　　(14) བསམས།

(3) ཞབས།　　　(6) བརྒྱབ།　　(9) བཙབས།　　(12) གཡང་།　　(15) འབྲས།