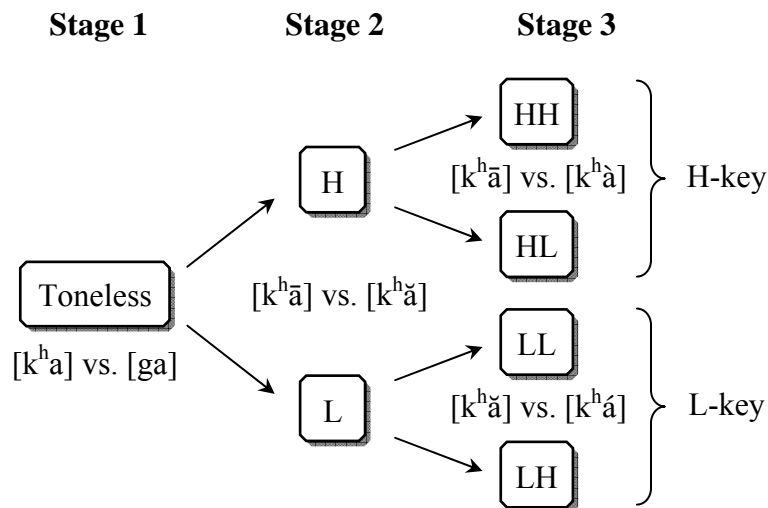# *Lesson 4*

Beyond the Syllable

❖ 4.1 Tone Sandhi

When syllables are put together, the internal working of a language sometimes "fixes" unnatural sequences to become easier to articulate for native tongues or better-sounding to native ears. This is called <u>sandhi</u>. Sandhi rules are typically language specific, with or without phonetic motivation. The changes in the sequences *a egg to *an egg* in English, *beau ami to *bel ami* in French, *la agua to *el agua* in Spanish, etc., are all examples of sandhi rules at work. In Lhasa Tibetan, sandhi rules fix tonal combinations unnatural to native speakers' ears. This section discusses the two tone sandhi rules in Lhasa Tibetan and some peripheral issues around tones.

4.1.1 General Review of Tones

In Lesson 3, we encountered falling risings tone created by the suffix, which completes the four-tone paradigm. It is important to know that Lhasa Tibetan did not emerge with these four tones from scratch (i.e., the toneless Old Tibetan) all at the same time. As we mentioned earlier, at the start there were only high tone and low tone, a new system made necessary by the disappearance of the voiced consonants and their subsequent merging with the voiceless ones. That is, the difference between the voiceless ཁ [kʰa] and the voiced ག [ga] in (toneless) Old Tibetan has shifted from a contrast in voicing to a contrast in tone: ཁ [kʰā] and ག [kʰǎ]. Some suffixes did modify the pitch contour, by turning HH(55) to HL(52) with an audible obstruent suffix. Yet, because the suffixes were, although continuously being weakened, still pronounced, the pitch contour served only as a secondary feature. For instance, the contrast between ཐ [tʰā] and ཐག [tʰàk] would rely more on the final consonant [k] of the second word rather than the tone difference between [ā] and [à]. Only much later, almost until present day, when the suffixes were weakened to complete (or, for some speakers, almost complete) silence, did the rising and falling pitch contours start to take up the burden and function as full-fledged tones.

Due to this historical development, the four tones in Tibetan do not behave entirely independently from one another. The high tone (HH) and the falling tone (HL), which is derived from the former, constitute a small tonal group, different from the low tone (LL) and the rising tone (LH), which forms the other. For convenience sake, we use the term "key" (instead of the confusing term "register") to classify the two groups. High-keyed tones are the high level and the falling, while the low-keyed tones are the low level and the rising. The concept of H or L key will play a crucial role in understanding the tone

sandhi rule. The following diagram represents very roughly, but sufficiently for our purposes, the development of the tonal system in Tibetan.

Stage 1   **Stage 2**   **Stage 3**

Toneless [kʰa] vs. [ga] → H : [kʰā] vs. [kʰǎ] → HH : [kʰā] vs. [kʰà] / HL } H-key

→ L : [kʰǎ] vs. [kʰá] → LL / LH } L-key

The diagram offers a simple and somewhat idealized scenario of the tonal development. It is phonologically true to those who have dropped the final glottal stop [ʔ] and distinguish ཁ [kʰā] from ཁག [kʰà] solely based on the tonal contrast. For the minority few who still retain the faint [ʔ] and who rely on it to distinguish ཁ [kʰā] from ཁག [kʰàʔ], stage 3 has not been completed, although the authors believe that it ultimately will. For either group, the level tone vs. contour tone distinction has transcended from a secondary role in stage 2 to a primary (if not exclusive) feature in present day Lhasa Tibetan.

The above description is the more abstract phonological, or mental, representation of the tones. The following chart links it to the actual phonetic properties of the four tones.

phonological representation		phonetic description of tones in a disyllabic word					
		short rhyme			long rhyme		
key	tone	citation or 2nd σ	1st σ	examples	citation or 2nd σ	1st σ	examples
H	HH	54	55	ཁ [kʰā]	55	55	ཨོང [kʰȫːng]
	HL	52	55	ཚབ [cʰəp]	(none)	--	--
L	LL	12	11	དགུ [kǔ]	113	11	མར [mǎː]
	LH	132	11	གངས [kʰáng]	14	(σ₂ only, derived)	ཟ་ཁང[káːng]

Summary of Tones of Lhasa Tibetan

The dotted portion of a tone indicates the "tail" in citation form or in a word final position. Note that the tail, although articulated, is not really in the "mindset" of the speaker (see 1.2.3). There are a few more things to note from the above summary chart of tones. First, while syllables with a long rhyme tend to be equally long in duration, averaging 0.32 seconds, syllables with a short rhyme differ in duration more widely, ranging from the super-short 0.12 seconds of ཁོབ [kʰòp], the standard 0.16 seconds of ཏ

[tā], to the oversized སངས [sàng], which tried to fit in as a short rhyme with a duration of

0.21 seconds (cf. སང, [sāːng] 0.32 seconds without the post-suffix.) The long vs. short

division will play a crucial role in the tone sandhi rule called "Long Rhyme Rising" in Lhasa Tibetan. Second, there is no underlying long rhymed falling tone or rising tone in the system, even though the capacity is there to allow their existence. Momentarily, we will introduce this Long Rhyme Rising, which derives a long rhymed rising tone in disyllabic words. Third and lastly, rhyme is a separate notion from tone. Even though there are some predictable correlations between the two, for instance, it is easier to maintain the long rhymed high tone as 55 (without the slackening tail) than the short rhymed 54 (with the tail), the 55 and 54 are best understood as having the same HH tone. Similarly, the short 12 and the long 113 are both LL in nature.

4.1.2 Disyllabic Tone Sandhi

We have come a long way to understand the Tibetan tones and how to read Tibetan orthography with the correct sounds as well as the correct tones. There is one last hurdle in the homestretch before we are truly able to see Tibetan words and know immediately how to pronounce them, most of which are not isolated syllables. Although the smallest meaningful unit, or morpheme, in Tibetan is usually single syllables, the bulk of the lexicon consists of disyllabic words. Thus, learning how to adjust the tone of a single syllable in disyllabic combination is essential.

The discussion in the previous section provides us the necessary background to understand how tone sandhi works in Tibetan disyllabic words. Mathematically, the four lexical tones in Lhasa Tibetan should produce 16 (4x4) possible tonal combinations (some tones have long and short variations) for all disyllabic words. In reality, disyllabic combinations exhibit only five tonal patterns, namely, HH + HH, HH + HL, LL + HH, LL + HL and a fifth LL + LH. In other words, 16 different inputs of combining different tones into disyllabic compounds only yield five outcomes. This fact suggests that there must be tone sandhi rules at work, merging different tones into simpler patterns.   This tremendous merging is all the more remarkable if one compares the Tibetan data with the Chinese (Mandarin) tone sandhi. In Mandarin Chinese, which also has the four tones similar to those in Lhasa Tibetan, the 16 possible combinations of a disyllabic word in Mandarin actually yield 15 well-formed outputs. Only one combination, namely LL + LL, needs fixing (to LH + LL). Yet, Tibetan has only 5 outputs out of 16. To say that so many combinations are unnatural and need fixing by sandhi rules is apparently missing something more general. We contend that the tone sandhi rule for disyllabic words

applied much earlier (at stage 2, as indicated in the diagram above) while the system had only two tones (H and L) rather than the current stage with four tones. Let's examine the data first. Leaving the fifth pattern LL + LH as the result of an additional rule, the other four possible combinations can be represented by the following diagram, the various tones in a box indicate the possible inputs of each specific pattern.
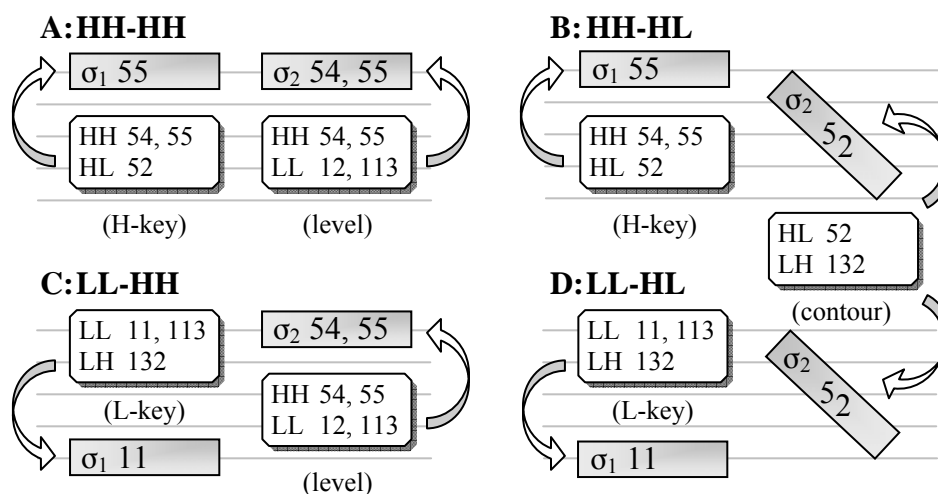
In Pattern A, for example, the first syllable (σ_1) comes from three possible sources, all H-key, namely a HH short rhyme (54), HH long rhyme (55), or HL (52). No matter what the input tone is, it is pronounced as a sustained 55 (for both short and long rhyme). The second syllable (σ_2) has four possible sources, all level tones, namely, HH short rhyme (54), HH long rhyme (55), LL short rhyme (12), or LL long rhyme (113). Unlike σ_1, the tone of σ_2, also HH, allows the two variations 54 (short rhyme with tail) and 55 (long rhyme). All four Patterns A, B, C, and D reviewed, there seems to exist a predetermined tonal pattern for disyllabic words: σ_1 must be level and σ_2 must be H-key, i.e., high level or falling.

The above observation supports our claim that the tone sandhi rule must have been operated on a simpler tonal system (i.e., stage 2), where "key" is the key factor. Given the data, it is adequate to assume that, in a two tone system, H + H and L + H combinations are OK and H + L and L + L must undergo sandhi and change the second syllable from L to H. The rule is amazingly simple:

(1) Sandhi Rule in Stage 2: If σ_2 is L, change it to H.

This is why the first syllable is fixed as a level tone: it reflects and preserves the pronunciation of Lhasa Tibetan in Stage 2. The second syllable is word-final and has the room to develop the tonal contours, thus the predetermined H-key and the variations in level (HH) and contour (HL) tones.

Putting the above diachronic analysis aside, from a contemporary perspective, it is sufficient to describe the tone sandhi rule as follows:

(2) Dissyllabic Key-Contour Rule

In a disyllabic word $\sigma_1\sigma_2$, σ_1 must be level, whether it is HH or LL depends on the Key of σ_1; σ_2 must be H-key, whether it is HH or HL depends on the shape (level or contour) of σ_2.

The rule says, in a disyllabic word $\sigma_1\sigma_2$, the tone of σ_1 is decided by its key; and the tone of σ_2, already set at H-key, is decided by its shape (level or contour). In pattern B, for example, the input sources are H-keyed HH (54, 55) or HL (52), therefore, σ_1 is HH; whereas, in pattern C, since the inputs for σ_1 are all L-keyed, σ_1 is realized as LL. Note that, whether short or long, σ_1 is always a clean-cut, tail-less 55 or 11. In patterns B and D, the possible inputs for σ_2 are contour tones, therefore, it is realized as a falling tone (since the key is predetermined at H). The following summarizes the four tonal patterns in terms of the deciding factors for each syllable (key for σ_1 and shape for σ_2).

(3) Disyllabic Key-Contour Rule and the Resulting Four Tonal Patterns
    A: H-keyed tone + level tone → HH + HH
    B: H-keyed tone + contour tone → HH + HL
    C: L-keyed tone + level tone → LL + HH
    D: L-keyed tone + contour tone → LL + HL

The Tibetan orthography becomes very handy in deciphering the tonal pattern. Since the tonal key of a syllable is decided by the onset and the shape (level or contour) by the coda, one only needs to glance at the onset of σ_1 and the coda of σ_2 to be able to tell the output combination. (Recall that the level shape of σ_1 and H-key of σ_2 is predetermined.) Below is an exhaustive list of examples grouped in tonal patterns:

Pattern A: HH-HH
    (1) ལྷ་ས་ [lʰā] + [sā] → [lʰāsā] 'Lhasa'   (HH^{54} + HH^{54}→ 55 + 54)

    (2) ཁ་པར་ [kʰā] + [pāː] → [kʰāpāː] 'telephone'   (HH^{54} + HH^{55} → 55 + 55)

    (3) ཕ་མ་ [pʰā] + [mǎ] → [pʰāmā] 'father and mother' (HH^{54} + LL^{12} → 55 + 54)

    (4) ཏུ་ལམ་ [pʰā] + [mǎ] → [hālāːm] 'almost'   (HH^{54} + LL^{113} → 55 + 55)

    (5) རྩམ་པ་ [tsāːm] + [pā] → [tsāːmpā] '*tsampa*'   (HH^{55} + HH^{54} → 55 + 54)

    (6) གཅེན་གཅུང་ [cēːn] + [cōːng] → [cēːncōːng] 'siblings'(HH^{55} + HH^{55} → 55 + 55)

    (7) སྐར་མ་ [kār] + [mǎ] → [kārmā] 'star'   (HH^{55} + LL^{12} → 55 + 54)

    (8) སང་ཉིན་ [sāːng] + [nǐːn] → [sāːngnīːn] 'tomorrow' (HH^{55} + LL^{113} → 55 + 55)

    (9) ཚོག་ཤ་ [tsʰà] + [shā] → [tsʰāshā] 'yak meat'   (HL^{52} + HH^{54}→ 55 + 54)

    (10) མཆོད་ཆང་ [cʰ̀ø] + [cʰāːng] → [cʰø̄cʰāːng] '*chang*' (HL^{52} + HH^{55} → 55 + 55)

(11) སློབ་གྲྭ [lòp] + [trʰǎ] → [lōptrā] 'school' (HL^{52} + LL^{12} → 55 + 54)

(12) ཁྱེད་རང [kʰyè] + [rǎ:ng] → [kʰyērā:ng] 'you' (HL^{52} + LL^{113} → 55 + 55)

Pattern B: HH-HL

(13) བཀྲ་ཤིས [trā] + [shì] → [trāshì] 'personal name' (HH^{54} + HL^{52}→ 55 + 52)

(14) བཅུ་དྲུག [cū] + [trʰú] → [cūtrù] 'sixteen' (HH^{54} + LH^{132} → 55 + 52)

(15) ཤིང་ཏོག [shīng] + [tò] → [shīngtò] 'fruit' (HH^{55} + HL^{52} → 55 + 52)

(16) ལྷན་རྒྱས [lʰɛ̄:n] + [kyɛ̀] → [lʰɛ̄:nkyɛ̀] 'together' (HH^{55} + LH^{132} → 55 + 52)

(17) ཏག་ཏག [tà] + [tà] → [tātà] 'exactly' (HL^{52} + HL^{52} → 55 + 52)

(18) སློབ་གྲོགས [lòp] + [trʰó] → [lōptrò] 'classmate' (HL^{52} + LH^{132} → 55 + 52)

Pattern C: LL-HH

(19) ན་ཚ [nǎ] + [tsʰā] → [nǎtsā] 'illness' (LL^{12} + HH^{54}→ 11 + 54)

(20) རི་མོ [rǐ] + [mǒ] → [rǐmō] 'painting' (LL^{12} + LL^{12} → 11 + 54)

(21) དགོན་པ [kǒ̆:n] + [pā] → [kǒ̆:npā] 'monastery' (LL^{113} + HH^{54} → 11 + 54)

(22) གྲང་མོ [trʰǎng] + [mǒ] → [trʰǎngmō] 'cold' (LL^{113} + LL^{12} → 11 + 54)

(23) ཞོགས་པ [shó] + [pā] → [shǒpā] 'morning' (LH^{132} + HH^{54} → 11 + 54)

(24) ཞབས་ཞུ [shǎp] + [shǔ] → [shǎpshū] 'to serve' (LH^{132} + LL^{12} → 11 + 54)

*(25) ལོ་གསར [lǒ] + [sār] → [lǒsār] 'new year' (LL^{12} + HH^{55} → 11 + 55)

*(26) དགེ་རྒན [kě] + [kɛ̌:n] → [kěkɛ̄:n] 'teacher' (LL^{12} + LL^{113} → 11 + 55)

*(27) མགྲོན་ཁང [trǒ̈:n] + [kʰāng] → [trǒ̈:nkāng] 'hotel' (LL^{113} + HH^{55} → 11 + 55)

*(28) ནམ་རྒྱུན [nǎm] + [kyǚ:n] → [nǎmkyǖ:n] 'usual' (LL^{113} + LL^{113} → 11 + 55)

*(29) མིག་དམར [mí] + [mār] → [mǐngmār] 'school' (LH^{132} + HH^{55} → 11 + 55)

*(30) བོད་འབར [pʰǿ] + [pǎr] → [pʰǒ̈pār] 'Tibet-Burma' (LH^{132} + LL^{113} → 11 + 55)

Note that in Pattern C, when the second syllable is long, such as the asterisked examples from (25) to (30), the pattern undergoes an additional rule in colloquial Lhasa speech that further changes the 11 + 55 pattern to 11 + 14. See 4.1.3 for more detail.

Pattern D: LL-HL

(31) ལ་ཕུག [lǎ] + [pʰù] → [lǎpù] 'radish' (LL^{12} + HL^{52}→ 11 + 52)

(32) ར་ལུག [rǎ] + [lú] → [rǎlù] 'goats and sheep' (LL^{12} + LH^{132} → 11 + 52)

(33) གྲོང་གསེབ [tr^{h}ŏng] + [sè] → [tr^{h}ŏngsè] 'countryside'(LL^{113} + HL^{52} → 11 + 52)

(34) ཉིན་དེབ [nyĭ:n] + [t^{h}ép] → [nyĭ:ntèp] 'diary' (LL^{113} + LH^{132} → 11 + 52)

(35) རིག་གནས [rí] + [nɛ̀] → [rĭnɛ̀] 'culture' (LH^{132} + HL^{52} → 11 + 52)

(36) བོད་ཟབས [p^{h}ø̈] + [sɛ́] → [p^{h}ø̈sɛ̀] 'school' (LH^{132} + LH^{132} → 11 + 52)

4.1.3 Long Rhyme Rising

The disyllabic tone sandhi rule is a simple yet powerful one that predicts all the possible combinations. In some U-Tsang dialects, this seems to be the only operating sandhi rule, e.g. *Dartze* county to the east of Lhasa. However, a subgroup of Pattern C (LL-HH), namely the asterisked examples from (25) to (30), is pronounced in Lhasa Tibetan with a twist. That is, the pronunciation of ཉལ་ཁང [nyĕ:] + [k^{h}ā:ng] 'bedroom' is

not the predicted [nyĕ:kā:ng] (LL-HH), but instead [nyĕ:ká:ng] (LL-LH). This is the result of an additional rule to the more general disyllabic sandhi we discussed in the previous section. In Lhasa Tibetan, when the first syllable is low (from all L-key sources, short or long), the second syllable, if and only if long, becomes rising (LH). In other words, this additional rule changes all the (LL^{11}-HH^{55}) combinations to (LL^{11}-LH^{14}). We call this rule Long Rhyme Rising:

(1) Long Rhyme Rising: LL-HH(long) → LL-LH

This is worth noting because all contour tones are short in duration, this rising long rhyme only exists in this derived context. However, it is not to be taken as a new tone; it is simply combining the LH tonal contour to a long rhyme, something allowed in the capacity of the system. Lhasa speakers simply take advantage of this capacity and fill in a gap. More examples:

(2) ཇ་ཁང: [c^{h}ă] + [k^{h}ā:ng] → [c^{h}ăká:ng] 'teahouse' (LL^{11} + LH^{14})

(3) ཇ་མདོང: [c^{h}ă] + [tŏ:ng] → [c^{h}ătó:ng] 'tea churn'(LL^{11} + LH^{14})

(4) ཇ་མར: [c^{h}ă] + [mă:] → [c^{h}ămá:] 'tea and butter'

(5) མདུན་ལམ: [tŭ:n] + [lă:m] → [tŭ:nlá:m] 'future'

(6) རི་མགུལ: [rĭ] + [kŭ̈:] → [rĭngkŭ̈:] 'area near mountain top'

(7) བྱང་ཤར: [c^{h}ă:ng] + [shā:] → [c^{h}ă:ngshá:] 'northeast'

Note that this rule does not apply to the LL-HH combination when the second syllable is short, cf. examples from (19) to (24) in the previous section.

4.1.4 Neutral Tone

Tibetan syllables, judged from the orthography, all have a tone. However, in a string of words, some syllables become toneless. Most of these syllables are functional categories such as case markers, structural particles, and sentential particles, which do not have a semantic content per se. There are interesting interactions between the toneless syllable and the syllable it is attached to.

The negator མ་ [ma] 'not', for example, is a toneless functional category. It is phonologically attached to the verb that follows it and form a "tonal foot" (a prosodic unit where tone sandhi rules apply) with the verb. Being in the tonal foot, མ་ needs a tone.

Since it does not have a tone of its own, it is specified by the (tonal) key of the hosting verb. Consider the following examples from Hu (1979):

(1) མ་བལྟས་ [ma] + [tè] → [mātè] 'did not look'

(2) མ་བསྡད་ [ma] + [té] → [mătè] 'did not sit'

(3) མ་བསད་ [ma] + [sè] → [māsè] 'did not kill'

(4) མ་བཟས་ [ma] + [sé] → [măsè] 'did not kill'

We can see that the same negator མ་ can be pronounced either as [mā]-HH or [mă]-LL, depending on the phonological context it appears in, i.e. the key of the verb which follows མ་. What is worth noting here is that, after the tone of མ་ is decided, the new tonal foot (མ་ + verb) becomes subject to the disyllabic tone sandhi rule discussed earlier in 4.1.2. The contrast between the falling tone བལྟས་ [tè] and the rising tone བསྡད་ [té] disappears (both become [tè], as a result of the tone sandhi), but their respective original tone is reflected by the negator མ་.

Proclitic toneless syllables such as མ་ which precede their phonological host and participate in tone sandhi are in the minority. Most toneless syllables are enclitics, attaching themselves to the end of a preceding syllable. Toneless syllables of this sort typically do not participate in the disyllabic tone sandhi rule, which means they do not cause tone change on the preceding syllable. Examples:

(1) ཕེབས་ཨ་ [pè] + [a] → [pèa] 'Go.'

(2) འགྲོ་དོ་ [trŏ] + [tu] → [trŏtu] 'Let's go.'

It should be noted that, although the above examples are transcribed as a disyllabic unit (as they are indeed), the first syllable retains its original tone, be it level or contour. This would not be possible if the second syllable had a tone, which would have triggered the disyllabic tone sandhi and changed the first syllable to a level tone.

In the situation where the toneless syllable is attached to a disyllabic word, the attachment does not affect the tonal pattern of the host. Examples:

(5) བཀྲ་ཤིས་ལ་ [trāshì] + [la] → [trāshìla] 'to Trashi'

(6) མགྲོན་ཁང་ལ་ [trŏ:nkáng] + [la] → [trŏ:ká:ngla] 'in a hotel'

❖ **4.2 Contraction of Syllables**

Tibetan orthography is supposed to allow one vowel diacritic per syllable (or none if the vowel is [a]). Yet, it is not rare to see syllables marked with more than one vowel diacritics. This is mainly due to the contraction of syllables, a writing convention mainly

designed to reflect the pronunciation more faithfully. This section discusses the most common cases.

4.2.1 Morphological suffixes and grammatical particles

We will learn during the course of this textbook all the major morphological suffixes and grammatical particles. Morphological suffixes seldom take different written forms even though they may have different pronunciations. Grammatical particles, on the other hand, usually have different written forms to reflect the difference in pronunciation. གི་ (Genitive case), གིས་ (Ergative case), ལ་ (Oblique case), etc. all have a variant form when attached to an open syllable. They are, respectively, -འི་ (Genitive), -ས་ (Ergative), -ར་ (Oblique). The last two morphemes, -ས་ and -ར་, are written as the suffix of the previous syllable and present no particular difficulty. The pronunciation of the original word is modified in the same manner as by the orthographic suffix -ས་ or -ར་.

(1) ངས་ [ngέ] (from ང་ 'I' + གིས་ ergative case marker) 'I'

(2) ལྷ་སར་ [lʰɛ̄:sā:] (from ལྷ་ས་ 'Lhasa' + ལ་ oblique case marker) 'in Lhasa, to Lhasa'
Note that the Oblique suffix -ར་ only lengthens the vowel and does not have the option of being pronounced as a [r]. This is different from the true, or orthographic, suffix ར་.

The Genitive case marker -འི་ often creates a syllable with two diacritics, such as the following examples: ངའི་ [ngɛ̆:] 'my', མིའི་ [mĭː] 'of people', སུའི་ [sū:] 'whose', མེའི་ [mĕ:] 'of fire', ཁོའི་ [kʰø̄:] 'his', etc. Note that these examples are cases of syllable contractions. The -འི་ is not to be taken as the dummy suffix འ་. As indicated by the phonetic transcription, the pronunciation of this genitive -འི་ is identical to the suffix ལ་, i.e., it triggers umlauting on [a, o, u] and lengthens all vowels.

A common diminutive nominal suffix -འུ་ is written together with the preceding open syllable, e.g., རྟེའུ་ [dēū] or [diū] 'colt, foal' (from རྟ་ [tā] 'horse') and རྡེའུ་ [dĕū] or [diŭ] 'pebble, small stone'. The -འུ་ can be read as a separate syllable, in which case the tonal pattern follows the disyllabic tone sandhi rule. Or, in casual speech, [u] combines with the preceding vowel and form a diphthong.

4.2.2 Alternations of the letter བ་: [pʰa], [wa], and glottal stop

We have seen that the bilabial stop བ་ [pʰ]-LL creates a group of remarkable exceptions in pronunciation when subjoined, superjoined, or prefixed. It does not hurt to repeat them

here: དབ [w]-HH, བྱ [cʰ]-LL, དབྱ [y]-HH, འབྱ [c]-LL, བྲ [trʰ]-LL, and དབྲ [r]-HH. This very naughty བ itself has in fact other exceptional pronunciations. When བ takes the default vowel [a] or the mid back [o] (བོ), in a second syllable, it is pronounced [w]-LL, instead of [pʰ]-LL. For instance, རེ་བ [rĕwā] 'hope' and རི་བོ [rĭwū] 'mountain'. Note that in the case of རི་བོ, vowel harmony also takes place ([rĭwō] → [rĭwū]). See 4.3.3.

In the colloquial pronunciation, the second syllable onset བ [w] deletes itself so that the vowel of the second syllable joins the vowel of the first syllable to form a long vowel (with [a, o, e]) or a diphthong (with [i, u]). Examples:

(1) ཀ་བ [kāwā] → [kāː] 'pillar'

(2) དྲ་བ [trʰăwā] → [trʰăː] 'net'

(3) ཀོ་བ [kōwā] → [kōː] 'leather'

(4) མཆེ་བ [cʰēwā] → [cʰēː] 'canine (tooth)'

(5) དུ་བ [tʰŭwə] → [tʰwŏ] 'smoke'

If unsure about the pronunciation, the learner can always resort to the formal reading of བ in the above examples as [w].

In casual speech, the morpheme བ 'person', when attached to a disyllabic host, is toneless and can be treated as a simple suffix -བ. For example:

(6) ལྷ་ས་བ [lʰɛ̄ːsà] (from ལྷ་ས་བ [lʰɛ̄ːsāwa]) 'a person from Lhasa'

(7) གྲོ་མ་བ [trʰŏmò] (from གྲོ་མ་བ [trʰŏmōwa]) 'a person from Yadong'

Note that the original trisyllabic word is reduced to disyllabic, with the tone change on σ₂ from high to falling because of the "suffix" བ.

4.2.3 Diphthongs of other sources
Diphthongs are unusual in the Tibetan phonological system. Native words tend to have single vowel nuclei. Diphthongs created by the diminutive -འུ mentioned earlier are relatively rare. However, language contacts with other languages, Chinese in particular, have made it necessary to develop some writing conventions to accommodate loan words that contain diphthongs in the original source. The following chart is a summary of the common long vowels and diphthongs used to spell foreign loan words.

sound	a:	i:	u:	e:	o:	ai	ao	iu	uo	eo	ou
loan word	ཨཱ	ཨིའི	ཨུའུ	ཨེའི	ཨོའོ	ཨའི	ཨའོ	ཨིའུ	ཨུའོ	ཨེའོ	ཨོའུ

Since Tibetan already has the long vowels [aː, iː, uː, eː, oː] (ཨར་ཨིར་ཨུར་ཨེར་ཨོར), the inclusion of the long vowels in the chart above needs some explanation. Recall that all the long vowels are derived from a single short vowel with sonorant suffix. Foreign long vowels do not have these underlying sonorant in the coda position, so it makes sense to distinguish them as "bare" long vowels with a different spelling. For example, The Chinese province of Gansu is written in Tibetan as གན་སུའུ [kɛ̄ːnsūː]. Chinese political

terms such as *zhŭxí* 'chairman' is borrowed into Tibetan as གུའུ་ཞི, with a long [u]. These "irregular" writings should not concern our reader too much, as these words tend to appear only in political and economic contexts, which is hardly the theme or level of this textbook.

4.2.4 Special writing rules

Traveling in Lhasa, one is bound to see such mysterious signs as བྀུ outside many

restrooms or outhouses. How does one pronounce a syllable with two vowel diacritics on

a single root letter? This particular word is actually a shorthand for བུ་མོ 'girl', an instance

of the many special writing conventions accumulated over time in Tibetans' daily use of

the writing system. Another often seen example is the contraction of the word བཀྲ་ཤིས

'auspicious' into བཀྲྀས, still read as [trɔ̄shì] as the original disyllabic word.

❖ 4.3 Phonological Interactions Between Syllables

Did we say that pre-onset elements (prefix and superfix) are silent? If we did, we meant that "they are silent when the syllable is pronounced in isolation." In a disyllabic word, the consonant(s) between the vowel of each syllable can undergo phonological changes. The otherwise silent pre-onset element in the second syllable may also interact with the first syllable as well. In this section, we will discuss some common phonological rules in Lhasa Tibetan. Some of these rules are subconscious to native speakers, but foreign learners tend to notice these sound changes in spoken Lhasa Tibetan because some changes are quite obvious. We consider it helpful to discuss these rules here.

4.3.1 Disyllabic Deaspiration

Earlier we learned that pre-onset elements make a third column obstruent (ག, ཟ, ད, བ,

ཛ and the derived ཇ, གྲ, ཌ, �, and ཥ) lose its aspiration. This is a rule conscious to native

speakers, the result of its application filling in five gaps in the sound inventory, namely [k]-LL, [c]-LL, [t]-LL, [pʰ]-LL, and [ts]-LL. The sound change is reflected in the orthography by a superfix or a prefix and native speakers are very much aware of the change. We may call this rule Pre-onset Deaspiration.

There is in fact another deaspiration rule that applies to all aspirated consonants, including the high tone ཁ, ཚ, ཐ, ཕ, ཚ and the derived ཁྱ, ཁྲ, ཐྲ, ཕྲ, ཕྱ, ཁྱ, ཁྲ, ཌ, ཐྲ, and ཥ. This rule applies when the second syllable in a disyllabic word has an aspirated onset (H

or L). This phenomenon was noted earlier in Pronunciation Drill 1.5.4, when we practiced reading disyllabic words. Some of the previous examples in this section also exhibit the application of this rule. We may call it Disyllabic Deaspiration. Examples:

(1) ཁ [kʰā] + ཆུ [cʰū] → ཁ་ཆུ [kʰācū] 'saliva' (not *[kʰācʰū])

(2) ཆུ [cʰū] + ཁ [kʰā] → ཆུ་ཁ [cʰūkā] 'by the water' (not *[cʰūkʰā])

(3) འོ [ŏ] + ཆ [cʰă] → འོ་ཆ [ŏcā] 'milk tea' (not *[ŏcʰā])

(4) དབང [wāːng] + ཆ [cʰā] → དབང་ཆ [wāːngcā] 'power, rights' (not *[wāːngcʰā])

(5) དབྱར [yāː] + ཁ [kʰā] → དབྱར་ཁ [yāːkā] 'summer' (not *[yāːkʰā])

The first two examples are particularly telling: Both syllables have an aspirated onset [cʰ] or [kʰ] but it is always the onset in the second syllable that loses the aspiration.

As a side note, the two deaspiration rules have very different linguistic natures. The Pre-onset deaspiration rule is obligatory, expressed in the orthography, and the speakers are conscious about it. Failing to apply the Pre-onset Deaspiration rule to a prefixed/superfixed third columner is like pronouncing *cheap* as *sheep*. It's simply wrong. The Disyllabic Deaspiration rule, although important to know, is not as obligatory. Pronouncing དབྱར་ཁ [yāːkā] 'summer' as [yāːkʰā] sounds unnatural and unauthentic to native ears, but it would not be considered entirely wrong. This is similar to the variations of [t] in American English. The Pre-onset Deaspiration rule, which applies to prefixed or superjoined third columners, may be compared to the English rule alternating the [t] sound in words such as *nation* [sh] and *native* [t]. The Disyllabic Deaspiration rule compares more closely to the flapping of [t] in *butter*. Failure to flap the [t] in *butter* in casual talk may only reveal one's status as a non-native speaker of American English, whereas pronouncing *native* as *nashive* is simply unacceptable. Even though the distinction between the two deaspiration rules is clear, since the Disyllabic Deaspiration rule is extremely common, one should internalize it and apply it whenever appropriate.

4.3.3 Leftward Liaison

Tibetan pre-onset elements may be pronounced in certain sound environments. For example, the words *four* བཞི [shĭ] and *ten* བཅུ [cū] both have the prefix བ, which is silent

in both words in their citation form. However, the word *forty* བཞི་བཅུ (literally, four-ten)

is [shĭ**p**cū] with the prefix བ of the second syllable བཅུ overtly pronounced as [p]. This

phenomenon is identical to a well known phonological rule in French called <u>liaison</u>, where a word-final silent, or more accurately, <u>latent</u>, consonant becomes overtly pronounced in specific sound environment. For instance, the final t in *petit* [pti] 'small' and the s in *les* [lɛ] 'the' are both silent in isolation but become pronounced when preceding a vowel-initial word which is syntactically close enough, e.g., *petit ami* [pti**t**ami] 'boyfriend' and *les enfants* [lɛ**z**ãfã] 'the children'. The only difference between Tibetan and French in this regard is the direction of liaison: French liaison links the right margin (i.e. the word-final position) latent consonant to the following vowel as its onset, Tibetan liaison links the left

margin (i.e. pre-onset element) leftward to the preceding vowel as its coda. We may call the Tibetan case Leftward Liaison.

There exist numerous examples of the Leftward Liaison in Tibetan disyllabic words, for the two syllables (usually also two morphemes) are always morphologically close.

(1) བཅུ [cū] + བཞི [shǐ] → བཅུ་བཞི [cūpshī] 'fourteen' (བ liaisoned)

(2) ལ [lǎ] + མགོ [kǒ] → ལ་མགོ [lǎ:ngkō] 'superfix la' (མ liaisoned)

(3) རྟ [tā] + མགོ [kǒ] → རྟ་མགོ [tā:ngkō] 'horse head' (མ liaisoned)

Leftward Liaison applies not only within words, it can also take place across word boundaries, when the two words are syntactically close enough and form one prosodic unit. Examples:

(4) མི [mǐ] + འདུག [tú] → མི་འདུག [mǐntù] 'not have' (nasal འ liaisoned)

Leftward liaison can be understood as the leftmost latent consonant of a syllable surfacing as the coda of the preceding syllable, which has to be open (coda-less) prior to the liaison. However, there are cases when the preceding syllable does contain a suffix in writing but since it is entirely silent, the liaison rule still applies.

(5) བོད [pʰø̌] + ལྗོངས [cóng] → བོད་ལྗོངས [pʰø̌:ncòng] 'Tibet' (nasal ལ liaisoned)

Note that the latent nasal sound of the superfix ལ is pronounced despite the coda ད in the previous syllable.

Recall from Lesson 3 that the alveolar nasal suffix ན triggers umlauting on the back vowels [a. o, u] to [ɛ,ø,ü], creating long rhymes [ɛ:n, ø:n, ü:n]. It is important to note that the liaisoned nasal sound, coming from three different pre-onset sources (མ, འ, and ལ), do not trigger any change, no umlauting nor lengthening, on the vowel. In other words, Tibetan makes a distinction between a true coda [Vn] and a liaisoned coda [Vn] such that only the true coda causes umlauting and lengthening in the vowel. Examples:

(6) མ [mǎ] + འགྲོ [trǒ] → མ་འགྲོ [mǎntrō] 'not go' (འ liaisoned)

As expected, the liaisoned coda [n] does not trigger umlauting, thus མ་འགྲོ [mǎntrō] and not *[mɛ̌:ntrō]. Exceptions exist, however. Some disyllabic words are such core vocabulary in the daily use of the language that, during the evolution, the liaisoned coda is somehow taken as the true coda. The numeral བཅོ་ལྔ [cø̌ngā] 'fifteen' (from བཅུ [cū] 'ten' + ལྔ [ngā] 'five') offers an excellent example. First, the vowel [u] lowers to [o] due to the low vowel [a] in the following syllable to [cō.nga] (see vowel harmony, next section); then the superfix ལ becomes liaisoned as a nasal coda and triggers umlaut to form [cø̌ngā].

Readers should not feel concerned about these less predictable pronunciations, as they will all be phonetically transcribed in the vocabulary.

4.3.4 Vowel Harmony

Vowel harmony refers to a fairly common phonological phenomenon of adjacent vowels (allowing intervening consonants) affecting one another, or a chief one affecting others, in such a way that they become more similar. In Lhasa Tibetan, vowel harmony is manifested in the power of the high vowels [i, u, ü] to raise non-high vowels (e.g. [a, e, o]) in their vicinity to a higher position (i.e., more similar in height), with the low vowel [a] raising to [ə], and [e, o] sounding closer to their higher counterparts [i, u]. This is an allophonic variation subconscious to native speakers but learners may be able to hear this vowel raising effect clearly. Examples:

(1) ཁ [kʰā] + ཆུ [cʰū] → ཁ་ཆུ [kʰəcū] 'saliva'

(2) ཆུ [cʰū] + ཁ [kʰā] → ཆུ་ཁ [cʰūkə] 'by the water'

(3) མ [mă] + ཕུ [pʰŭ] → མ་ཕུ [məpŭ] 'mother and son'

(3) མ [mă] + ཕུ [pʰŭ] → མ་ཕུ [məpŭ] 'mother and son'

(4) ཕུ [pʰŭ] + མོ [mŏ] → ཕུ་མོ [pʰŭmū] 'girl'

(5) སྐྱུར [kyūr] + མོ [mŏ] → སྐྱུར་མོ [kyūrmū] 'sour'

Earlier in 4.1.2, we encountered two words ལ་ཕུག [lăpù] 'radish' and ར་ལུག [rălù] 'goats and sheep'. Due to vowel harmony, the actual pronunciation should be [lĕpù] and [rĕlù], respectively.

In some cases, vowel harmony is shown in a different way by lowering the high vowels [i, u] to the level of the non-high [e, o]. For example, the same word ཕུ་མོ can alternatively be pronounced [pʰŏmō]. This lowering type of vowel harmony goes a long way back in the history of the language, sometimes even reflected in the orthography. In the previous section we saw that the vowel [u] in the morpheme བཅུ 'ten' lowers to [o] in བཅོ་ལྔ 'fifteen'. The word བཅོ་བརྒྱད 'eighteen' is another example of this type of vowel harmony. Note that, whether it is [pʰŭmū] or [pʰŏmō], the effect of vowel harmony involves a high vowel. Mid vowels [e, o] typically do not have the force to trigger vowel harmony. For instance:

(5) ད [tʰă] + ལོ [lŏ] → ད་ལོ [tʰălō] 'this year' (not *[tʰĕlō])

(6) འོ [ŏ] + ཆ [cʰă] → འོ་ཆ [ŏcā] 'milk tea' (not *[ŏcə])

Note that, since vowel harmony is an allophonic rule (like the flapping of [t]), orthography does not always reflect it.

❖ 4.4 Punctuation

Tibetan has its own set of punctuation marks. There is no between-word spacing of the western style in Tibetan writing (i.e., no marking of word boundaries.) The smallest unit for punctuation is the syllable. To separate syllables (usually one syllable

corresponds to one morpheme, the smallest meaningful unit in the language), a dot (ཚེག) is marked by the right shoulder of the last letter of the syllable.

There is no strict definition of a sentence in the English sense. Clausal units that resemble a complete sentence or a subordinate clause can be marked by a single vertical line called ཚིག་ཤད. There is no distinction among declarative, interrogative, or exclamatory sentences. For all three types, for which English would employ a period, a question mark, and an interjection mark, respectively. Tibetan uses a uniformed ཚིག་ཤད. Examples:

(1) ཁྱེད་རང་སློབ་གྲྭ་ཡིན་པས། *Are you a student?*

(2) ངའི་མིང་ལ་མའེ་ཁི་ཟེ་གི་ཡོད། *My name is Mike.*

(3) ཨ་ཙོ། *Oh!*

When one uses ཚིག་ཤད at the end of a clause, one normally does not need to use the ཚེག to finish marking the last syllable. There are two exceptions. First, when the last letter of the last syllable is ང, one has to dot the ང before one writes the vertical ཚིག་ཤད. This is to prevent ང from sitting too close to the vertical line and being misread as བ. Second, when the last letter of the sentence is ག་ཀ or ཤ, the long vertical stroke of the letter itself is considered to represent the ཚིག་ཤད. There is no need for an additional vertical line ཚིག་ཤད.

(4) སྐུ་ཁམས་བཟང་། *Good day. How are you?* (dot and the vertical mark before ང)

(5) དེ་རིང་འདིའི་སློབ་གྲོགས་དགུ་ལས་མིན་འདུག *There are only nine students here today.* (no vertical mark ཚིག་ཤད)

To end a paragraph, two vertical lines ‖ (ཉིས་ཤད) can be used instead of ཚིག་ཤད. At the end of a larger section of an essay, one may double up the ཉིས་ཤད and use four vertical lines ‖‖ (བཞི་ཤད) to end the entire section of the text. The beginning of a text is marked with ༄༅ (དབུ་ཁྱུད); ༺ (སྒོ་ཤད) starts chapters or sections; and ༒ (རིན་ཆེན་སྤུངས་ཤད) starts a new line that contains only one syllable so that it does not look

dangling.

   Although there are quite a few calligraphic styles in Tibetan writing, there is no equivalent to the capital and lower cases of the alphabet in the western sense. As a result, there is no way to distinguish common nouns from proper names. To make reading Tibetan text even more difficult for foreign learners, as we mentioned earlier, since the punctuation mark ཚེག is only used to separate syllables, there is no indication of word boundaries to help the reader decide where a word begins and where it ends. Diligence seems to be the only solution to this problem.

❖ 4.5 Exercises

4.5.1 Pronunciation Drill (I): words with HH-HH surface tonal pattern

(1) ཁྱེད་རང་།	(17) གཉིས་པ།	(33) མཆོད་ཆང་།	(49) གཅིན་པོ།	(65) བསྐུན་འཛིན།
(2) དུ་ཅང་།	(18) ཁ་མ།	(34) ཁྲིམ་ཆང་།	(50) གཅིན་མོ།	(66) གཅིན་གཅུང་།
(3) སློབ་ཆོན།	(19) སློབ་གྲྭ།	(35) སུ་སུ།	(51) ཁོང་ཚོ།	(67) སྐལ་བཟང་།
(4) ཆང་མ།	(20) གསུམ་པ།	(36) གཅུང་མོ།	(52) སྐར་མ།	(68) ཁ་ས།
(5) བླ་མ།	(21) གསོལ་ཇ།	(37) ཆང་ས།	(53) ཕ་གི།	(69) སང་ཉིན།
(6) ཁྲི་ག	(22) ཁུ་ལུ།	(38) ཁང་པ།	(54) ལྷ་པ།	(70) སྐྱེས་སྐར།
(7) གསར་པ།	(23) གསོལ་གྲུམ།	(39) ཆེན་པོ།	(55) ཨ་རེ།	(71) ཕལ་ཆེར།
(8) པེ་ཅིན།	(24) སྦྱིད་གཞུང་།	(40) སྐྱིད་པོ།	(56) ཕུར་བུ།	(72) ཁ་པར།
(9) རྣམ་པ།	(25) རྣངས་འབོར།	(41) ཐང་ཆེན།	(57) བཅུ་པ།	(73) སྟོང་པ།
(10) ཁེ་པོ།	(26) སིར་པན།	(42) ཕག་ག	(58) ཐོག་ཁ།	(74) མཆོན་མོ།
(11) ཕུར་བ།	(27) རྣམ་འགྱུར།	(43) ཚ་པོ།	(59) དབྱར་ཁ།	(75) བསྐུན་འཕྲིན།
(12) ཆམ་པ།	(28) བཅུ་བཞི།	(44) ཨེམ་ཆི།	(60) བཙོ་ལྷ།	(76) གནངས་ཉིན།
(13) ས་མཐོ།	(29) ཀང་པ།	(45) གནམ་གྲུ།	(61) ཀང་འབོར།	(77) ཆབ་མདོ།
(14) ལྷ་བཀྲ།	(30) སུམ་བཀྲ།	(46) ཁམས་པ།	(62) བླ་སེ།	(78) གཅིན་སྟོན།
(15) ཚོང་ཁང་།	(31) ལྷ་མོ།	(47) གློག་བརྙན།	(63) སྐ་མགྲོན།	(79) ལྷ་ཁང་།
(16) བཅུན་མ།	(32) བླ་བྲང་།	(48) སྣོ་ཚལ།	(64) ས་གནན།	(80) མཆོད་རྟེན།

4.5.2 Pronunciation Drill (II): words with HH-HL surface tonal pattern

(1) སྐུ་གཟུགས།　(7) ཕྱག་ལས།　(13) སྣང་དག　(19) ཚེ་རིང་།　(25) སློབ་གྲོགས།

(2) སྐུན་རྒྱུས།　(8) ཕྱི་ལོགས།　(14) ཨ་རག　(20) ག་འཛུགས།　(26) བསོད་ནམས།

(3) ཚེ་ལོས།　(9) རྒྱུ་ཚོད།　(15) ཕྱི་ལོགས།　(21) ཕྱག་ལས།　(27) དབང་འདུས།

(4) མདའ་རིས།　(10) ཐར་ཆོས།　(16) ཨང་གྲངས།　(22) རྒྱབ་ཀྱུག　(28) གཉེན་སྒྲིག

(5) ཨ་ཅག　(11) བསམ་ཡས།　(17) ཤིང་ཏོག　(23) ཚང་བརྒྱག　(29) བཅུ་གཉིས།

(6) བཅུ་གཅིག　(12) ཁ་བཏགས།　(18) ཚང་གཞས།　(24) ཚོང་འདུས།　(30) གནམ་གཤིས།

4.5.3 Pronunciation Drill (III): words with LL-HH surface tonal pattern

(1) ཉིན་མོ།　(11) བདེ་པོ།　(21) ག་འདྲ།　(31) རོ་རྗེ།　(41) དགའ་བསུ།

(2) དགོང་མོ།　(12) ག་ལེར།　(22) དང་པོ།　(32) སྐྱོལ་མ།　(42) འཕྲུག་མོ།

(3) ཕྲེལ་བ།　(13) ད་ལྟ།　(23) དགའ་པོ།　(33) ལས་ཀ།　(43) ཕྲུག་པ།

(4) དགའ་པོ།　(14) ང་ཚོ།　(24) བཞི་པ།　(34) ཁོམ་པ།　(44) དུས་ཡུན།

(5) གྲོགས་པོ།　(15) ནོར་བུ།　(25) བཞི་བཅུ།　(35) བདུན་པ།　(45) གཞོན་ནུ།

(6) བཟོ་པ།　(16) ཞིང་པ།　(26) ཀླུ་བ།　(36) བརྒྱད་པ།　(46) དགུ་པ།

(7) གཞུང་ལམ།　(17) རྒྱུ་མ།　(27) ཞིམ་པོ།　(37) འཛོམ་འགྲུ།　(47) ཉིང་ཁྲི།

(8) ལྷུག་ཀ།　(18) ཞབས་ལྷུ།　(28) དགུན་ཁ།　(38) ནང་མི།　(48) འཚོ་བ།

(9) འབྲོག་ཁུལ།　(19) འགྱུར་བ།　(29) གྲོང་ཚོ།　(39) དགོན་པ།　(49) རྒྱ་མཚོ།

(10) ནག་རྒྱ།　(20) མགྲོན་པོ།　(30) རྒྱལ་རྩེ།　(40) རྒྱ་པ།　(50) རི་མོ།

4.5.4 Pronunciation Drill (IV): (words with LL-HL surface tonal pattern)

(1) ག་ནས།　(11) བདེ་སྐྱིད།　(21) རོ་སྟོད།　(31) རང་ཉིད།　(41) བཞེས་རག

(2) རོ་ཤེས།　(12) རྒྱ་ནག　(22) ནམ་ལངས།　(32) ག་ཚོད།　(42) གྲོད་ལོག

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(3) ལས་རོགས། (13) ལས་ཁུངས། (23) བདེ་ལེགས། (33) རིང་ལོས། (43) ལོག་སྟེབས།

(4) དུས་ཚོད། (14) ཡིག་སྐྲོགས། (24) ག་དུས། (34) སློ་འགྲམ། (44) དགའ་རོགས།

(5) ཟླ་ཚེས། (15) ཡག་གོས། (25) འདི་ནས། (35) བྱང་རོས། (45) མདུན་ཕྱོགས།

(6) ལག་རྟགས། (16) ལམ་ཐག (26) བོད་སྐྱོངས། (36) སྦྱི་རག (46) རོད་ཚོད།

(7) འགའ་ཞིག (17) རྒྱུ་ལོག (27) གྲོད་ཁོག (37) ལོ་ཏོག (47) འབྲས་སྙུངས།

(8) སྟོད་ལོག (18) རོག་ཁྲེས། (28) ལོ་རྒྱུས། (38) ཞོག་ཁོག (48) གྲོང་གསེབ།

(9) ལུས་རོད། (19) སྟེ་མིག (29) གྱང་གསེང་། (39) ལ་ཕུག (49) བདེ་འཇགས།

(10) རིག་གནས། (20) སྟེབས་རིས། (30) ལོ་ལེགས། (40) མི་རིགས། (50) འགྲོ་ཚུགས།

4.5.5 Pronunciation Drill (V): (words with LL-LH surface tonal pattern)

(1) ཉེ་ཚར། (9) མིག་དམར། (17) མགྲོན་པོ། (25) ཉིན་གུང་། (33) ལུགས་སྲོལ།

(2) སྦྲལ་དཀར། (10) དགེ་རྒན། (18) གཉིམ་ཁང་། (26) དེ་རིང་། (34) བྱང་ངར།

(3) ཉལ་ཁང་། (11) བར་སྐོར། (19) ཞལ་དཀར། (27) རྒྱུ་མཚན། (35) དགའ་ལྡན།

(4) བོད་སྐྱུན། (12) ཟ་ཁང་། (20) རྒྱུ་གར། (28) གདུང་རྟེན། (36) ཞོ་སྟོན།

(5) མགྲོན་ཁང་། (13) ལམ་སེང་། (21) འདུ་ཁང་། (29) ལོ་ལྩར། (37) ཟླ་གུར།

(6) བོད་ཁྱིམ། (14) ཟོང་སྐོར། (22) མར་ཟན། (30) ཞིང་ཁྱིམ། (38) ལུང་ཤུར།

(7) ན་ཞིང་། (15) ནམ་རྒྱུན། (23) དུས་ཆེན། (31) རྒྱལ་སྟོན། (39) མཛལ་དར།

(8) ཉིས་སྟོང་། (16) རོ་ཕུང་། (24) བོ་སྡུང་། (32) ཞེད་སྡང་། (40) བོམས་སྲོལ།

4.5.6 Pronunciation Drill (VI): phrasal and irregular pronunciation

(1) རྐན་ལགས། (7) གཟའ་ཉི་མ། (13) འདི་ནང་། (19) སྦློ་བཟང་།

(2) པྲ་ལགས། (8) ལོ་བརྒྱད། (14) མགོ་ན། (20) གཟུགས་པོ།

(3) ཕྱགས་རྡེ་ཆེ། (9) བཞུགས་འདུག (15) ཏུ་གོ། (21) གཉས་འབབ།

(4) སྟིང་རྗེ་པོ། (10) མ་བྱུང་ང་། (16) ཡག་པོ། (22) ང་བསླབས་མ།

(5) བརྗེད་གནང་།   (11) མཛལ་ཡོང་།   (17) ཡོང་ང་།   (23) ཞེ་དྲགས།

(6) གཟན་རྐྱ་བ།   (12) ཐག་རིང་པོ།   (18) ཕ་འབྲས།   (24) བཤགས་གདན་འཛུགས།

4.5.7 Oral Spelling (I): spell out the syllables

(1) གྲོགས་པོ།   (5) རིག་གནས།   (9) འཛམ་གླིང་།   (13) ནང་ལས།

(2) སུམ་རྟགས།   (6) སྟོད་སྨད།   (10) ཉིས་སྟོང་།   (14) གནམ་གྲུ།

(3) དཀར་ཡོལ།   (7) བརྒྱག་དཔྱད།   (11) མགྲོན་ཁང་།   (15) ཡང་གྲངས།

(4) གློག་བརྙན།   (8) བོད་ལྗོངས།   (12) བསམ་བློ།   (16) སེམས་ཁྲལ།