2.1 The Amdo Syllable

From a non-native speaker's perspective, Amdo Tibetan contains a wide variety of unusual, or even awkward, combinations of consonants in the syllable initial position, such as *rt*, *dg*, *mts*, *lp*, *wk*, *hr*, etc., just to name a few. These unusual consonant clusters can intimidate learners at first sight. However, a closer look at the structure of an Amdo syllable will make it easier to learn these seemingly impossible combinations.

2.1.1 The Syllable Structure

Syllable structure, universally, contains a nucleus, which is usually a vowel, as the sole obligatory member of the syllable. An optimal syllable has a consonant that precedes the nucleus. This consonant is called the onset of the syllable. Some languages allow more than one consonant in the onset position, forming a clustered onset. The nucleus may be followed by another consonant or a cluster of consonants, which is known as the coda. Thus, a syllable has the following structure:

```
syllable
   /  \
  /    \  
onset       rhyme
     /  \
    /    \ 
nucleus   coda
```

The maximal number of consonants tolerated in the onset or in the coda is language-specific. English, for instance, is quite accommodating in this regard. The word *spring* has three consonants *spr* in the onset position and *sixths* [siksθs] has four consonants *ksθs* in the coda position. Typically, Amdo syllables allow only one consonant in the onset position and one in
the coda position. (Note that both the onset and the coda are optional members of a syllable.) When an Amdo syllable appears to have a consonant cluster in the onset position, the cluster typically does not behave the same as, say, an English onset cluster. For example, the word རྒྱ་ 'horse' has the རྒྱ rt onset but the first element [ʁ] r is pronounced very lightly as [h] only in its careful citation form. In regular speech, the word རྒྱ in a sentence is most likely to be pronounced as [ɾ] ta. Like rta, the first element of a clustered onset is usually silent in casual speech, but it surfaces in certain cases. The verb སྐྱོན་ 'to go', for example, contains a clustered onset nj and is usually pronounced as སྐྱོན, with the [n] silent. Yet in negations such as in [ɾ + སྐྱོན] ma + njo ‘don't go’, the [n] obligatorily surfaces. An analogy may be drawn from the English word bomb. Normally, the second b in bomb is silent, but in bombardment, the second b emerges as the onset of the second syllable, and becomes pronounced. It is beyond the scope of this book to further discuss the rationale for the following analysis, but the authors believe that the peculiar behavior of Amdo consonant clusters in the onset position is best explained if we treat an Amdo syllable as having the following structure:

According to this syllable structure, the r in rta and n and njo are analyzed as the extrasyllabic element. We will return to this topic shortly.

**2.1.2 The Writing of an Amdo Syllable**

In Lesson 1, we encountered the basic form of a Tibetan syllable, which consists of the root letter and the vowel. However, Tibetan syllables are often more complicated than that. Some letters
are written on top of the root letters, while others combine with the root letter from underneath. The former are called superjoined letters, or superfixes, the latter subjoined letters. Less dramatic are the letters written in a linear fashion in relation to the root letter. Those which precede the root letter are called prefixed letters, or prefixes; those which follow are called suffixes. The letter  can follow a regular suffix. When it does, it is called a post-suffix. Note that the terms prefixes and suffixes used here refer only to the Tibetan orthography; they do not refer to the morphological structure of a word.

A Tibetan syllable, thus, can consist of a subset of a number of elements including a prefix, a superjoined or subjoined letter, a root letter, a vowel diacritic (could be unmarked if the vowel is [a]), a suffix, and a post-suffix. The following diagram is of the syllable ཤུགས་ to line up, to pile, a "full house" with all seven elements present: ༽ is called the root letter (ཧིང་།),  ༽ the prefix (ོཉུ་བོ།), ༽ the superjoined letter (ོོཉུན་ངོ་།), ༽ the subjoined letter (ོོཊ་ེ་ོ་།), ༽ the vowel diacritic (ོོཧོ་།), the second ༽ the suffix (ོོཊ་ེ་ོ་།), and the second ༽ the post-suffix (ོོཧོ་།).
Tibetan writing is syllable-based, which makes it even more crucial for learners to understand the syllable structure, especially, to know how each element in Tibetan writing (root, prefix, suffix, etc.) corresponds to each element in the pronunciation of a syllable (extrasyllabic, onset, nucleus, and coda.)

### 2.1.3 Extrasyllabic Consonants

Before we introduce the subjoined, superjoined, and prefixed letters, let us spend a little time on the notion of extrasyllabicity. Simply put, an extrasyllabic consonant is a consonant that does not naturally fit within a syllable. That it does not "fit in naturally" is because the combination in the clustered onset results in an ill-formed sequence, either cross-linguistically or language-specifically. Typically, the extrasyllabic element becomes latent, i.e., a silent presence in the speaker's mind that is not overtly pronounced. This explains why most superjoined and prefixed letters, analyzed here as extrasyllabic, tend to be silent in casual speech.

It is important for learners to understand that these silent consonants are only latent and not absent. It is like the s in the French article *les* [lɛ], which can be "liaisoned" to a following vowel-initial word (e.g. *les amis* [lezami]). In Amdo Tibetan, it is the opposite direction of the French liaison. We may call it a "leftward liaison". When the preceding syllable, which must be syntactically or morphologically close enough to the syllable containing the extrasyllabic consonant, ends with a vowel (i.e., without a suffix), the latent consonant may be "liaisoned" as...
the coda of the preceding syllable and become pronounced. This is the case of མ + ལུ [man,jo] don't go (as discussed earlier).

The rest of this lesson is devoted to subjoined letters, superjoined letters, and prefixes. Their pronunciation and distribution may seem complicated, but we advise the learner to try and understand what prefixes and superjoined letters do in general and then memorize individual cases of special letter combinations. With practice, irregular pronunciations will become second nature to the learner. Remember that extrasyllabic consonants, whether slightly pronounced in citation form or silent in regular speech, are always present in the Amdo speaker's mind. They may or may not surface, but they are part of the orthography, just like the *p* in *psychology* and *pneumonia*. It is a good habit at the beginning to always make an effort to memorize the correct writing (or spelling) of a word.

2.2 Subjoined Letters (འར་སྦྱིར།)

Subjoined letters are the letters written underneath the root letters. There are four subjoined letters, namely, ཡ མ ཚ བ. Traditional Tibetan orthography does not regard the subjoined letters as part of the root letter to which they are attached. However, at least for ཡ and ཚ, they combine with the root letter and form an integral part of the onset and may change the pronunciation of the root letter quite dramatically. Sometimes, even new phonemes are created.

The subjoined letters are described by a word བར་སྦྱིར། [təx] meaning 'hanging.' Thus, ཡ in a subjoined position is called ཡར་སྦྱིར།. We shall introduce ཡར་སྦྱིར། ཚར་སྦྱིར། བར་སྦྱིར། and བླ་སྦྱིར། one by one.

2.2.1 ཡར་སྦྱིར། (subjoined *y*)

འར་སྦྱིར།, being a palatal glide [*y*], causes palatalization of the root letter it subjoins. Note that ཡར་སྦྱིར། is written differently as a subjoined letter. Below is an exhaustive list of all the possible root letters that take ཡར་སྦྱིར།:
There are no new sounds produced here. ʒ, ɕ, and ɕ have the same pronunciation as ʒ [c] and ɕ [cʰ]. ɕ sounds identical to ʃ [ny].  Note that all three labial consonants ʁ, when taking ʐ, merge to one identical sound [sh], the same as ʃ. Keep an eye on this group of bilabial consonants (ʄ, ʅ, ʆ), as later they will change their pronunciation drastically when superjoined and prefixed. We will come back to these three in section 2.4.3 when discussing the prefixes ʂ̆ and ʂ.

2.2.2 ʐ (subjoined r)

ʐ, a retroflex consonant, creates three new phonemes in the Amdo consonant system, namely, [tra], [trʰa], and [sra]. These are identical to the retroflexes in Mandarin Chinese zhi 'to know', chi 'to eat', and shi 'wet'.

Note that when ʐ takes the stops from all three groups of velars (ʔ, ɾ, ʨ), alveolars (ʃ, ɕ, ɕ), and labials (ɾ, ʂ, ʐ) and turns them into retroflex sounds, the places of articulation all merge to alveolar. So, ʒ, ɕ, and ʑ all have the same pronunciation as the aspirated [trʰa]; similarly, ʐ, ʐ, and ʐ all merge to one sound, [tr]. When ʐ takes ʂ̆, the result (ʂ̆) is the retroflex [sra], identical to the sh sound in Chinese sha ‘to kill’. Also note that ʂ̆ + ʐ (ʂ̆) has, for formal speech or written language, the same pronunciation as ʂ̆ [sa], but in colloquial Amdo, it coincides with ʐ as [sra]. Lastly, note that ʂ̆ + ʐ remains the same as ʂ̆[ma]. Below is the summary of the pronunciation changes caused by ʐ.
2.2.3 རྒྱུད་ལྟར་ (subjoined \(l\))

རྒྱུད་ལྟར་ is an anomaly among subjoined letters. While other "subjoiners" mostly modify the pronunciation of the root letter, རྒྱུད་ལྟར་ seems to "take over" entirely. Of the six possible combinations, four of them (\(\text{拉}-\text{拉}\)) are pronounced [la]. The other two are also irregular: རྒྱུད་ has an unexpected pronunciation [da] and རྒྱུད་ is pronounced [\(lh\)a], the aspirated lateral sound. Note that the voiced [da] and the aspirated lateral [\(lh\)a] are new sounds created by རྒྱུད་.

<table>
<thead>
<tr>
<th>root letter</th>
<th>རྒྱུད་</th>
<th>རྒྱུད་</th>
<th>རྒྱུད་</th>
</tr>
</thead>
<tbody>
<tr>
<td>with རྒྱུད་</td>
<td>རྒྱུད་</td>
<td>རྒྱུད་</td>
<td>རྒྱུད་</td>
</tr>
<tr>
<td>pronunciation</td>
<td>རྒྱུད་ [la]</td>
<td>[da]</td>
<td>[(lh)a]</td>
</tr>
</tbody>
</table>

2.2.4 རྒྱུད་ལྟར་ (subjoined \(w\))

རྒྱུད་ལྟར་ may be attached to a number of root letters: རྒྱུད་ལྟར་, in the shape of a little triangle. Its presence has no effect on the pronunciation of the root letter, but does serve the orthographic purpose of distinguishing words such as རྒྱུད་ [la] robe vs. རྒྱུད་ [la] a grammatical particle. This function resembles the \(k\) in knight as opposed to night, or the French accent circomflex used on \(d\u00f4\) (past participle of devoir) to distinguish itself from \(du\) (contraction of de le). Letters with རྒྱུད་ look like: རྒྱུད་

❖ 2.3 Superjoined Letters (རྒྱུད་ཁ

There are three superjoined letters: རྒྱུད་ and རྒྱུད་, referred to as རྒྱུད་ [rango], རྒྱུད་ [lango] and རྒྱུད་ [sango]. Superjoined letters are, with the sole exception of the combination རྒྱུད་ [lha], extrasyllabic. That is to say, "superjoiners" never really "join" the onset of a syllable to become an integral part of the syllable. Instead, they are only slightly pronounced as a fricative ranging from the velar [\(\gamma\)] to the glottal [\(h\)] in very careful speech or when the citation form of a word is given. In normal speech, they are silent.

The extrasyllabicity of superjoined letters does not mean that they are not important. Aside from orthographic significance, superjoiners also trigger some root letters to change from
voiceless consonants to voiced ones, for example, ོ [ka] and ོ [ga]. The next section deals with this general (and very important) voicing rule in Amdo Tibetan.

2.3.1 The Voicing Rule in the Third Columners

As we mentioned in Lesson 1, in the Tibetan alphabet table, letters line up in rows and columns, for the most part, according to their place of articulation and manner of articulation, respectively. Some members of the third column undergo voicing changes when superjoined. They are ོ, ོ, ོ and ོ. ོ [w] is also affected by the superjoiner and turns to a voiced bilabial stop [b]. Besides these five root letters, ོ and ོ also become voiced when superjoined. The shaded letters of the alphabet table below are those which undergo voicing changes when superjoined.

<table>
<thead>
<tr>
<th>Column I</th>
<th>Column II</th>
<th>Column III</th>
<th>Column IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>ོ</td>
<td>ོ</td>
<td>ོ</td>
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<td>ོ</td>
</tr>
</tbody>
</table>

ོ and ོ are not lined up as a "third columner" but nevertheless behave just like one. For this reason, we elect ོ and ོ to be honorary members of the group of third columners. We can now summarize the voicing rule: A third columner becomes voiced when superjoined.

The application of this rule produces the following results. Note that the voiced consonants now contrast with the members in the first column.

<table>
<thead>
<tr>
<th>Column I, single or superjoined</th>
<th>Column III, single</th>
<th>Column III (including ོ and ོ), superjoined</th>
</tr>
</thead>
<tbody>
<tr>
<td>ོ [k]</td>
<td>ོ [k]</td>
<td>ོ [g]</td>
</tr>
<tr>
<td>ོ [c]</td>
<td>ོ [c]</td>
<td>ོ [j]</td>
</tr>
<tr>
<td>ོ [t]</td>
<td>ོ [t]</td>
<td>ོ [d]</td>
</tr>
</tbody>
</table>
When a root letter is simultaneously subjoined and superjoined, it is called a folded letter (.folded fold). In a folded letter, the combination of a third columner and a subjoined letter is subject to the same voicing rule, i.e., they undergo the same voicing change. Examples: [ja], [ja], [dra], [dra]. Naturally, folded letters which do not involve a third columner do not undergo voicing change, for example, [ca], [ca], [tsa], [tsa]. Recall that the three labial consonants  merge to one sound, [sh], when subjoined by . When , , and are further superjoined, they exhibit irregular pronunciations (see section 2.4.3 for details). The voicing rule triggered by superjoiners on third columners creates seven new phonemes, all voiced: [g], [j], [d], [b], [dz], [z], and [zh].

Now we will examine the three superjoined letters , , and one by one.

2.3.3 (superjoined )

 may be superjoined to one of the following twelve root letters: . Note that, among the twelve combinations, only [ga], [ja], [da], [ba], and [dza] undergo a voicing change.

The pronunciation of as an extrasyllabic consonant takes various forms, depending on the root letter. The most common one is [h]. It is crucial for the learner to know that the various forms do not make a meaningful distinction from other superjoined letters. In other words, from the sound of any variant of [h], one cannot tell whether the superjoined letter is or or . The listener can only hear that there is an extrasyllabic element in front of the syllable. Thus, the underlying sound for all three superjoiners may be represented by a single, slight [h] sound. Learners are advised to remember the correct spelling of a word "cold" and not through the help of its pronunciation.

2.3.4 (superjoined )
may be superjoined to one of the following ten root letters:  The voicing rule affects four of these ten combinations:  and  

may be superjoined to one of the following eleven root letters:  Like the other two superjoiners,  triggers the voicing rule in the third columners, causing the following sound changes:  

In nomadic sub-dialects,  has the distinct function of causing aspiration in the root letter, most noticeably the combination . (N.B.: This combination is analyzed in traditional Tibetan grammar as the root letter taking a subjoined letter .) The same effect can be heard in combinations such as  and . These unusual aspirated nasals are not heard in agricultural sub-dialects. We will not emphasize these sounds in this book.

2.4 Prefixes (subjoined $^h$)

There are five prefixes:  and . Besides the fact that prefixes are written horizontally to the left of the root letter, there is little to be said about them that we have not discussed about superjoined letters. Prefixes resemble superjoined letters in that they are extrasyllabic in nature and trigger the voicing rule on third columners. However, a small number of “prefix + root letter” combinations have idiosyncratic pronunciations which deserve our special attention.

In terms of the prefixes' pronunciations, there is something new to be noted. Three members of the group, namely,  and , basically have the same pronunciation as the superjoined letters , and , namely, the slight [h] sound. In some areas, the prefix  is pronounced lightly as a [v]. The other two members,  and , are not pronounced as [h] but instead as a nasal sound that shares the same place of articulation as the root letter, for example, [nda], [mba], etc.
It is important to remember that these prefixes themselves do not, in regular speech, carry the burden of making meaningful distinctions and are therefore often dropped.

2.4.1 Prefixes ༣, ༢, and མ

These prefixes may appear to the left of a root letter, a superjoined letter, a subjoined letter, or a folded letter. Remember to apply the voicing rule in the third columners. For example: ཆ[ ཆ], ཆ[ ཆ], ཆ[ ཆ], ཆ[ ཆ], etc.

The prefix ཆ creates two remarkable exceptions: ཆ + ཆ turns to [hw]; and ཆ + ཆ turns to [ɾ], the French uvular fricative and the first element of the sound for the letter ཆ [ʁwa]. Note that, although the consonant inventory contains the sounds [h] (ު) and [ʁ] (ު), the two new sounds ཆ[ [hw] and ཆ[ [ɾ] are treated as separate phonemes by native speakers.

The prefix ཆ creates one exception. When it precedes ༣, the combination is pronounced as [kw]. For example, the very useful phrase ཁ[ ཁ[ ༼[thank] you contains such a combination. These exceptions are summarized below, juxtaposed with ༣ and ཆ:

<table>
<thead>
<tr>
<th></th>
<th>༣</th>
</tr>
</thead>
<tbody>
<tr>
<td>[h]</td>
<td>༣</td>
</tr>
<tr>
<td>[hw]</td>
<td>ཆ[ book</td>
</tr>
<tr>
<td>[ɾ]</td>
<td>ཆ[ personal name</td>
</tr>
<tr>
<td>[ʁw]</td>
<td>ཆ</td>
</tr>
<tr>
<td>[k]</td>
<td>ཆ[ the alphabet</td>
</tr>
<tr>
<td>[kw]</td>
<td>ཆ[ thank you</td>
</tr>
</tbody>
</table>

Note that the ཆ + ༣ → [kw] rule does not apply to a subjoined ༣. For example, the proper name ཆ[ ཆ[ reads [traxi] and not *[trwaxi].

2.4.2 Prefixes ང and གྷ

The underlying pronunciation of both prefixes ང and གྷ is a nasal sound. They affect the root letter in exactly the same way as the other three prefixes. For example: ང[ [ga], ང[ [dza], ང[ [ja], etc. In the citation form of words prefixed with ང or གྷ, due to the influence of orthography,
speakers may pronounce the [m] sound to express the bilabial འ. For ལ, the place of articulation changes according to the root letter. It is, again, of no significant value to overemphasize the difference between the two in regular speech.

The irregular changes in the pronunciation of the three labial consonants ཐ with འ and བ present initial difficulty for learners. Recall that the three (ཞི་ཞེ) merge to the sound [ʃ] when subjoined by འ. When prefixed, they go their separate ways again, sharing only the palatal feature. Prefixed ཐ remains [ʃ]; prefixed བ changes to [ʃ]. མ is the troublemaker. When prefixed by མ, it is pronounced [y]; when prefixed by ལ, it becomes [j]. It may be helpful for the learner to note that both [y] and [j] are voiced palatal sounds, which indeed shows the result of the voicing rule at work by both prefixes. The following chart is a summary:

<table>
<thead>
<tr>
<th>root letter</th>
<th>with འ</th>
<th>with འ, prefixed</th>
</tr>
</thead>
<tbody>
<tr>
<td>ཐ [p]</td>
<td>ཐ' [ʃ]</td>
<td>ཐ [ʃ]</td>
</tr>
<tr>
<td>ཐ [pʰ]</td>
<td>ཐ [ʃ]</td>
<td>ཐ [ʃ]</td>
</tr>
<tr>
<td>བ [w]</td>
<td>བ [ʃ]</td>
<td>བ [ʃ]</td>
</tr>
</tbody>
</table>

2.4.3 Latent Consonant Surfacing

Prefixed and superjoined letters represent sounds that are not really an integral part of the onset of the syllable. For this reason, we call them extrasyllabic consonants. An extrasyllabic sound, figuratively speaking, "floats" outside the syllable. If the preceding syllable has its own coda (i.e., a suffix), then the floating extrasyllabic element remains silent. If the preceding syllable happens to be an open syllable (i.e., without suffix), this floating element can then be anchored as the coda of that syllable, becoming pronounced. The word འི་ཐེ་ཐེ་teacher offers such an example. The word consists of two syllables, འི [ge] and ཐེ [(r)gen] with a latent [r]. The superjoined ཐ finds the previous syllable open and therefore surfaces as its coda, rendering the pronunciation [ger-gen]. Another example, འི་ཐེ he consists of the two syllables འི [kə] and ཐེ [(r)ge]. The extrasyllabic prefix ཐ of the second syllable finds the coda position of the
previous syllable open, so it surfaces, resulting in the pronunciation of [kər-ge]. Note that Ԝ surfaces as a flap [r] and not a [d]. ལི and ལོ surface as nasal sounds in similar situations.

Learners only need to know that floating extrasyllabic consonants do surface sometimes, normally within word boundaries. When listening to the recording, the learner should pay attention to the pronunciations and learn them on a case by case basis.

❖ 2.5 Oral Spelling (II): Subjoined, Superjoined, and Prefixed Letters

In this lesson we covered three types of elements in Tibetan syllable writing, namely, subjoined, superjoined, and prefixed letters. Amdo Tibetan has its unique way of oral spelling to name the letter in each position of the syllable.

The crucial word here is བོད་ཁྲ 'to hang' [(p)təx]. Note that in oral spelling, the syllable that precedes the word བོད་ཁྲ is always an open syllable, since it is the name of a letter, so the prefix བྲ [p] may surface. In reality, however, the prefix བྲ in བོད་ཁྲ surfaces as an unreleased [p] only in careful pronunciation. It is often dropped.

The essential idea here is to make sure that when spelling two letters A and B, with A stacking on top of B, one says “A - B - བོད་ཁྲ”, literally A with B hanging (beneath). This applies to two scenarios: (i) A superjoins B, B being the root letter; or (ii) A is subjoined by B, A being the root letter. Recall that Amdo spelling is a progressively-staged method, so after spelling out A - B - བོད་ཁྲ, one needs to give the intermediary result of the superjoining or subjoining before proceeding to the vowel and the rest of the syllable. Examples (we will adopt the normal and simpler casual spelling by omitting the [p] from བོད་ཁྲ [(p)təx]):

1. ཡི spells [ka ya təx ca]
2. དོ spells [kʰa ya təx cʰa]
3. ནོ spells [kʰa ya təx cʰa | naro cʰo]
4. འི Spells [tʰa ra təx trʰa]
5. ཕོ Spells [kʰa ra təx trʰa | kʰkʰ trʰɑ]
When a third columner undergoes a voicing change, the result of the voiced sound is spelled out the first time one mentions the letter. So, for བ, instead of saying *[ra ka təx ga]*, one pronounces བ as [ga] right from the beginning: [ra ga təx ga]. Example:

(6) བ [ra dza təx dza | naro dzo] (not *[ra tsa təx dza | naro dzo]*)

In case of a folded letter (A on top of B and B on top of C), with a superjoiner A over the root letter B over a subjoined letter C, one simply repeats the use of 2+$\circ\bar{\circ}$. Examples:

(7) བ s'a ga təx ga | ya təx ja | naro jo

(8) བ s'a ga təx ga | ra təx dra | shamcə drə

Since 2+$\circ\bar{\circ}$ only refers to a vertical "hanging" relation, it is not used to spell out the horizontal relation of a prefix and the root letter. In a linear order A-B, one simply says A-B. However, if A causes a change in the pronunciation of B, creating a new sound C, then one directly spells out the outcome by saying A-C. Special cases such as the ones listed in 2.4.2 and 2.4.3 belong to this category. Examples:

(9) བ J [da hwa drəng.e hwe] (not *[da pa hwa | drəng.e hwe]*)

(10) བ s' [ma ga naro go]

(11) བ s' a pʰ'a ya təx cʰ'a]

(12) བ s' [da ga ya təx ja | kəkə jə]

Recall that different combinations of letters may represent the same sound, for example, བ and བ. They are, naturally, spelled out differently. The former is a simple [cʰ'a], the latter [kʰ'a ya təx cʰ'a]. Here is another pair of examples: བ and བ. བ is simply བ [nya] while the folded བ [nya] is spelled out as [sa ma təx mʰ'a | ya təx nya].

2.6 Summary of Consonants

In Lesson 1 we mentioned that individual letters in the alphabet only represent some of the consonantal phonemes in Amdo Tibetan, 24 out of 38, to be exact.
By combining letters together, 14 more are represented. The following chart summarizes the additional consonantal phonemes discussed in this lesson, with Tibetan letters. The circumflex mark in front of a root letter indicates that it is prefixed or superjoined.

<table>
<thead>
<tr>
<th></th>
<th>labial</th>
<th>alveolar</th>
<th>alveo-palatal</th>
<th>palatal</th>
<th>velar</th>
<th>glottal</th>
</tr>
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<tbody>
<tr>
<td>stops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[-voice]</td>
<td>p, pʰ</td>
<td>t, tʰ</td>
<td></td>
<td></td>
<td>k, kʰ</td>
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<td>stops</td>
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<td></td>
<td></td>
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<tr>
<td>[+voice]</td>
<td>^_sound</td>
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<td></td>
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<tr>
<td>fricatives</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[-voice]</td>
<td>(f)</td>
<td>s, sʰ</td>
<td>sh</td>
<td></td>
<td>x</td>
<td>h, hw</td>
</tr>
<tr>
<td>fricatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[+voice]</td>
<td>(v)</td>
<td>^_sound</td>
<td>^_sound</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>affricates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[-voice]</td>
<td>ts, tsʰ</td>
<td>ch, chʰ</td>
<td></td>
<td></td>
<td></td>
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</tr>
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<td>affricates</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>[+voice]</td>
<td>^_sound</td>
<td></td>
<td>^_sound</td>
<td></td>
<td></td>
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<tr>
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<td>n</td>
<td>ny</td>
<td>ng</td>
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<tr>
<td>retroflexes</td>
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<td>^_sound</td>
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<tr>
<td>liquids</td>
<td>l, r</td>
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<td>aspirated</td>
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<td></td>
<td></td>
<td>y</td>
<td>w</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Some sounds have more than one spelling, as we have encountered in a number of cases. The [sh], for example, can be represented by the single letter ㄫ or by the combinations ㄰, ㄱ, ㄲ, and ㄳ. Note also that wherever the circumflex is used in the chart, it is an indication of the voicing rule on the third columner at work.

The sound [f] is foreign to the Tibetan phonology. However, as many loan words from Chinese and other languages contain that sound, Tibetan has developed a combined letter ཐ to denote the sound [f], e.g., ཐ ཐ ཐ ཐ [faransə] France. To most Amdo speakers, however, the sound is still foreign, the bilabial [pʰ] often being used as a substitute.
2.7 Exercises

2.7.1 Pronunciation Drill (I): Repeat each word after the recording. Pay attention to the sound change created by the subjoined letters ()(((V, J, and )), and (((B)).

(1) བོ | (7) འབྱི | (13) འབྱི་ | (19) འབྱི་
(2) བོ | (8) འབྱི | (14) འབྱི་ | (20) འབྱི་
(3) བོ | (9) འབྱི | (15) འབྱི་ | (21) འབྱི་
(4) བོ | (10) འབྱི | (16) འབྱི་ | (22) འབྱི་
(5) བོ | (11) འབྱི | (17) འབྱི་ | (23) འབྱི་
(6) བོ | (12) འབྱི | (18) འབྱི་ | (24) འབྱི་

2.7.2 Pronunciation Drill (II): Repeat each word after the recording. Pay attention to the voicing change of the third column consonants when prefixed or superjoined.

(1) བོ | (9) འབྱི | (17) འབྱི་ | (25) འབྱི་
(2) བོ | (10) འབྱི | (18) འབྱི་ | (26) འབྱི་
(3) བོ | (11) འབྱི | (19) འབྱི་ | (27) འབྱི་
(4) བོ | (12) འབྱི | (20) འབྱི | (28) འབྱི།
(5) བོ | (13) འབྱི | (21) འབྱི་ | (29) འབྱི།
(6) བོ | (14) འབྱི | (22) འབྱི། | (30) འབྱི་
(7) བོ | (15) འབྱི | (23) འབྱི | (31) འབྱི།
(8) བོ | (16) འབྱི | (24) འབྱི | (32) འབྱི་

2.7.3 Pronunciation Drill (III): Repeat each word after the recording. Pay attention to the irregular pronunciation of some combinations.

(1) བོ | (5) འབྱི | (9) འབྱི། | (13) འབྱི།
(2) བོ | (6) འབྱི | (10) འབྱི | (14) འབྱི།
(3) བོ | (7) འབྱི | (11) འབྱི | (15) འབྱི།
2.7.4 Sound Discrimination (I): Listen to the recording and circle the sound you hear:

A. aspirated vs. non-aspirated vs. voiced
ka - kʰa - ga  ta - tʰa - da  tsa - tsʰa - dza
ca - cʰa - ja  pa - pʰa -ba  tra -trʰa -dra

B. retroflexives vs. non-retroflexives
  ta - tra  da - dra  tʰa- trʰa
  sa - sha

C. sibilants
  ja- zha  ca - cʰa - ja  sha- zha - sa
tsa - tsʰa - dza

2.7.5 Sound Discrimination (II): Select the one sound in each group that is different from the others (ignore the pronunciation of prefixes and superjoined letters):

(1) a.  الماضي b.  الماضي c.  الماضي
(2) a.  الماضي b.  الماضي c.  الماضي
(3) a.  الماضي b.  الماضي c.  الماضي
(4) a.  الماضي b.  الماضي c.  الماضي
(5) a.  الماضي b.  الماضي c.  الماضي
(6) a.  الماضي b.  الماضي c.  الماضي
(7) a.  الماضي b.  الماضي c.  الماضي
(8) a.  الماضي b.  الماضي c.  الماضي
(9) a.  الماضي b.  الماضي c.  последние
(10) a.  الماضي b.  الماضي c.  الماضي

Write down the phonetic symbol for the sound that you select for each question:

(1) [ ] (2) [ ] (3) [ ] (4) [ ] (5) [ ]
(6) [ ] (7) [ ] (8) [ ] (9) [ ] (10) [ ]
2.7.6 Transcription: Transcribe the following syllables to Tibetan according to the standard Latin Transcription given on page 2.

(1) kye __________ (11) rno __________
(2) mtsho __________ (12) brju __________
(3) phru __________ (13) wltα __________
(4) slo __________ (14) bzhi __________
(5) rba __________ (15) gtso __________
(6) brla __________ (16) dge __________
(7) 'agyo __________ (17) khyo __________
(8) mgo __________ (18) glu __________
(9) sla __________ (19) 'abri __________
(10) myi __________ (20) sku __________

2.7.7 Oral Spelling

e.g., འ་ལུན་ 'musk' spells: [ka la təx la | ra təx tsa | kəkə tsa | latsə]

(1) ཆུའི 'job' spells: (6) ཁུ་ 'ax' spells:
(2) ཆི་ 'good' spells: (7) ཁུ་ 'pen' spells:
(3) ཡི་ 'squirrel' spells: (8) ཡི་ 'don't go' spells:
(4) རི་ 'dog' spells: (9) རི་ 'lake' spells:
(5) བཀྲ 'peacock' spells: (10) བཀྲ 'book' spells: