**3. Introduction to Verb Stem Variation (Excerpt from Eggleston, 2013)**

This chapter is intended as an overview to the patterns of verb stem variation in Tlingit. Verb stem variation will also be discussed in Chapters 4-14 with respect to each of the modes, but some general information is necessary to lay the groundwork. First, some definitions are in order. The terms 'root' and 'stem' are used throughout this discussion and both refer to the part of the verb which carries its basic meaning, however, the two terms are not interchangeable. The root is the most basic form that is common to all its inflected variants. The stem is the conjugated form, inflected for mode. For example, the root in *át uwagút* 'she arrived there' is *goot* and the stem is *-gút*. This particular verb has three stem variants, depending on mode. The short high stem was just given in the perfective mode *(–gút)*; the long high stem *(-góot)* occurs in the future mode: *aadé gugagóot* 'she will go there', and; the long low stem *(-goot)* occurs in the hortative mode: *át gagoot* 'let her go there'. The root is the basic, uninflected form *goot*, and the stem is the inflected form of the root.

Each mode in Tlingit (perfective, future, imperative, etc.) has a specific set of associated prefixes and/or suffixes. Another way that Tlingit verbs convey mode is through the length and tone of the vowel in the verb stem. Tlingit verb stems can be divided into two major categories: variable and invariable. Invariable stems are those that never change from one verb mode to the next. An example is the verb *ax'awóos'* 's/he's asking him/her' (imperfective). The stem *-wóos'* remains the same throughout the paradigm: *ax'eiwawóos'* (perfective) and *tlél ax'awuwóos'* (negative perfective). Verbs with variable stems, however, will change from mode to mode with respect to vowel length and tone. Here's an example: *alyéix* 's/he is building it' (imperfective); *awliyéx* (perfective), and; *tlél awulyeix* (negative perfective). Note how the length and tone of the vowel in the verb stem changes from mode to mode. Verb stem variation in Tlingit is not the same however, from verb to verb in each mode. For example, consider the following: *kasné* 's/he is knitting' (imperfective);

*kawdzinéi* (perfective), and; *tlél kawusné* (negative perfective). The verb 'build it' has a short, high vowel in the stem in the imperfective (*-yéx̱*), a short, high vowel in the perfective (*–yéx̱*), and a long, low vowel in the negative perfective (*-yeix̱)*. The pattern for the verb 'knit' however, is short, high    (*-né*), long, high (*-néi*), and short, high (*-né*) respectively. The following discussion on verb stem variation applies to variable stems only, since invariable stems are consistent throughout the paradigm, regardless of verb mode (see Chapter 15 for a list of themes with invariable stems that have irregular forms).

Verb stem variation in each mode is determined by two factors: the conjugation class of the verb (*Ø, na, ga, or g̱a*) and the shape of the verb root. Verb roots can be divided into two major groups: open roots (those that end in a vowel) and closed roots (those that end in a consonant). In discussing the shape of verb roots, we will use 'C' to represent any consonant and 'V' to represent any vowel. CV then, represents any open verb root, and CVC represents a closed verb root. Note that a glottal stop, represented by '.' in the Tlingit orthography, is a consonant. From here, we can further subdivide these groups. Let's look at open roots first.

Open roots can be divided into two subcategories. The first is represented as CVV and has three stem variants: long low (CVV), long high (CV́V), and short high (CV́). The second is represented as CVV[h] and also has three variants: long low (CVV), long high (CV́V), and short high (CV́). These two groups are distinguished on the basis of their differing behavior when they take a suffix, as in the perfective habitual and repetitive imperfective modes. This will be described in detail in the respective chapters on these two modes. For now, it is important to know that there are two subcategories of open roots. A bit of historical linguistic trivia about Tlingit will help shed light on the origin of this distinction and the reason for the [h] in the CVV[h] roots. Leer (1991) hypothesizes that the two-tone system of most dialects of modern Tlingit evolved from an earlier form of the language in which vowels had glottal

modifications called "glottalized" and "fading" (the latter is usually called "breathy" in linguistic literature elsewhere). Vowels with breathy quality are often indicated using the letter "h" in the field of linguistics. The CVV[h] stems in modern two-tone Tlingit are said to have evolved from breathy vowels in an earlier form of the language. Therefore, although the breathy quality is no longer there, the tone pattern in these stems maintains the distinction from other open roots. Because historically these roots were breathy in nature, it is useful to use [h] to distinguish them from other open roots. Note that Leer uses V' to indicate a breathy vowel. I follow Crippen (2012) here in using [h] because it is easier to see and not so easily confused with the apostrophe, which is also used to indicate an ejective consonant.

Closed verb roots can be divided into three subgroups based on two distinctions: whether a verb has two or three stem variants, and whether the final consonant in the root is ejective (called 'pinched' in the pedagogical literature), as in *si.áat'* 'it's cold'. The first of these subgroups will be represented as CVVC. These are verbs with closed roots that do not end in a pinched consonant. Verbs in this category will have a total of three stem variants: long and low (CVVC), long and high (CV́VC), and short and high (CV́C). The long, low stem is considered the basic stem and for this reason is chosen to represent this group. The second subgroup will be represented as CV́VC. These are verbs with only two stem variants: long and high (CV́VC) and short and high (CV́C). These verbs never have long, low stems. The basic stem for these verbs is the long, high stem and this is the stem chosen to represent this subgroup. The third and final subgroup are closed verbs ending in a pinched consonant. This group will be represented as CV́VC'. This group also only has two variants: long and high (CV́VC') and short and high (CV́C'). Again, the basic stem is the long, high stem and this is the stem that will represent this subgroup.

Now that we have established the five basic verb root shapes, we can look at verb stem variation as it pertains to each mode. As was mentioned above, the two factors

that determine which stem variant a verb will take in a given mode are the conjugation class (*Ø, na, ga,* or *ga*) and the basic shape of the verb root. Each mode specifies the shape that a verb stem will have based on these factors. In the table below, the basic stem shape is given across the top row. The basic stem shapes represent each subgroup of verb stems as described above. Each basic stem shape is then divided into two columns, one for *Ø* conjugation verbs, and one for *na, ga, and ga* conjugation verbs (these three pattern together with respect to verb stem variation). Each verb mode is given in the left column. To determine what shape a verb stem will have in a given mode, one must first determine the basic stem shape of the verb and the conjugation prefix that the verb uses (both given in the verb theme at the top of each verb entry on the CD). From there, follow the column down until it intersects with the desired mode to find the stem shape for that verb in that mode. Examples are given in Tables 14 and 15 for each basic stem shape. If one knows the basic stem shape and the conjugation prefix for a given verb, the stem variation in each mode is largely predictable based on the information in the tables below. If referring to the paradigms on the CD, one can of course simply look for the verb in the desired mode to obtain the same result. Studying these tables however, can help a language learner see (and remember) the patterns when using the language in conversation. Note however, that there are some fields in the tables that indicate two options for the stem shape in a given mode. In these cases, there is no way to predict which option a verb will take, but these must be documented for each verb by consulting with a native speaker of Tlingit. The modes in which this occurs are the imperative, hortative, potential, and the perfective habitual. These will be discussed in detail in the following respective chapters for each mode.

Table 14. Verb Stem Variation for Open Roots

| Basic stem shape | CVV | | CVVh | |
|---|---|---|---|---|
| Conjugation prefix | Ø | na, ga, ga | Ø | na, ga, ga |
| Examples | -xaa~ 'eat it' <br> -shaa~ 'get married' | -haa~ 'plant it' | -taa~ 'steam it' <br> -koo~ 'know it' | -taa~ 'sleep' |
| Perfective (+) | CV́V <br> aawaxáa / wuduwasháa | CVV <br> akaawahaa | CV́V <br> awsitáa / awsikóo | CVV <br> wootaa |
| Perfective (-) | CV́ <br> tlél awuxá / tlél wuduwashá | CVV <br> tlél akawuhaa | CV́ <br> tlél awustá / tlél awuskú | CVV <br> tlél wutaa |
| Imperative | CV́/CV́V <br> X̱á! / Idusháa! | CV́ <br> Akanahá! | CV́/CV́V <br> Satá! / Sakóo! | CV́ <br> Natá! |
| Perfective Habitual | CV́Vych <br> ooxáaych / dusháaych | CV́Vch[1] <br> akanahéich | CV́Vych <br> oostáaych / ooskóowch | CVVch <br> nateich |
| Progressive Imperfective | CV́Vn <br> yaa anaxéin / --- | CV́Vn <br> yaa akanahéin | CV́Vn <br> --- / yaa anaskwéin | CV́Vn <br> yaa natéin |
| Future (+) | CV́V <br> akgwaxáa / gaxdusháa | CV́V <br> akakgwaháa | CV́V <br> aguxsatáa / aguxsakóo | CV́V <br> gugatáa |
| Future (-) | CVV <br> tlél akgwaxaa / tlél gaxdushaa | CVV <br> tlél akakgwahaa | CVV <br> tlél aguxsataa / tlél aguxsakoo | CVV <br> tlél gugataa |
| Hortative | CVV/CV́V <br> agaxaa / gadusháa | CVV <br> akangahaa | CVV/CV́V <br> axsataa / axsakóo | CVV <br> nagataa |
| Repetitive Imperfective | CV́V-X <br> axéix / --- | CV́V-X <br> yoo akayahéixk | CVV-X <br> asteix / askweix | CVV-X <br> teix |
| Potential | CVV/CV́V <br> agwaaxaa / gaduwasháa | CVV <br> akoongaahaa | CVV/CV́V <br> ooxsitaa / ooxsikóo | CVV <br> ungaataa |
| Conditional | CV́Vni <br> axéini / dushéini | CV́Vni <br> akanahéini | CV́Vni <br> astéini / askwéini | CV́Vni <br> natéini |

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[1] Verb stems ending in –aa and –oo undergo apophony (the vowel becomes –ei) in the following modes: perfective habitual (na-, ga-, and ga- themes only), progressive imperfective, repetitive imperfective, and conditional.

Table 15. Verb Stem Variation for Closed Roots

| Basic stem shape | CVVC | | CV́VC | | CV́VC' | |
|---|---|---|---|---|---|---|
| Conjugation prefix | Ø | na, ga, ga | Ø | na, ga, ga | Ø | na, ga, ga |
| Examples | -xook~ 'dry it'<br>-tseek~ 'bbq it' | -xaash~ 'cut it' | -wáat~ 'raise him'<br>-cháak~ 'pack it' | -sháat~ 'hold it' | -dáal'~ 'type it'<br>-xáas'~ 'scrape it' | -.óos'~ 'wash it' |
| Perfective (+) | CV́C<br>awsixúk<br>awlitsík | CVVC<br>aawaxaash | CV́C<br>awsiwát<br>akaawachák | CV́VC<br>awlisháat | CV́C'<br>akawlidál'<br>aawaxás' | CV́VC'<br>aawa.óos' |
| Perfective (-) | CVVC<br>tlél awusxook<br>tlél awultseek | CVVC<br>tlél awuxaash | CV́VC<br>tlél awuswáat<br>tlél akawucháak | CV́VC<br>tlél awulsháat | CV́VC'<br>tlél akawuldáal'<br>tlél awuxáas' | CV́VC'<br>tlél awu.óos' |
| Imperative | CV́C²<br>Saxúk!<br>Latsík! | CVVC<br>Naxaash! | CV́C<br>Sawát!<br>Kachák! | CV́VC<br>galsháat! | CV́C'<br>Kaladál'!<br>Xás'! | CV́VC'<br>Na.óos'! |
| Perfective Habitual | CVVCch/ CV́Cch<br>oosxookch<br>ooltsíkch | CV́Cch<br>anaxáshch | CV́VCch/ CV́Cch<br>ooswáatch<br>akoochákch | CV́Cch<br>axlashátch | CV́VC'ch/ CV́C'ch<br>akooldáal'ch<br>ooxás'ch | CV́Cch<br>ana.ús'ch |
| Progressive Imperfective | CV́C<br>yaa anasxúk<br>--- | CV́C<br>yaa anaxásh | CV́C<br>kei anaswát<br>yaa akanachák | CV́C<br>yei analshát | CV́C'<br>yaa akanaldál'<br>yaa anaxás' | CV́C'<br>yaa ana.ús' |
| Future (+) | CV́VC<br>aguxsaxóok<br>aguxlatséek | CV́VC<br>akgwaxáash | CV́VC<br>aguxsawáat<br>akakgwacháak | CV́VC<br>yei aguxlasháat | CV́VC'<br>akaguxladáal'<br>akgwaxáas' | CV́VC'<br>akgwa.óos' |
| Future (-) | CVVC<br>tlél aguxsaxook<br>tlél aguxlatseek | CVVC<br>tlél akgwaxaash | CV́VC<br>tlél aguxsawáat<br>tlél akakgwacháak | CV́VC<br>tlél yei aguxlasháat | CV́VC'<br>tlél akaguxladáal'<br>tlél akgwaxáas' | CV́VC'<br>tlél akgwa.óos' |
| Hortative | CVVC/CV́C<br>axsaxook<br>axlatsík | CVVC<br>angaxaash | CV́VC/ CV́C<br>axsawáat<br>akgachák | CV́VC<br>agaaxlasháat | CV́VC'/ CV́C'<br>akaxladáal'<br>agaxás' | CV́VC'<br>anga.óos' |
| Repetitive Imperfective | CV́C-X<br>asxúkx<br>altsíkx | CV́C-X<br>yoo ayaxáshk | CV́C-X<br>aswátx<br>akachákx | CV́C-X<br>yei alshátch | CV́C'-X<br>akladál'x<br>axás'x | CV́C'-X<br>yoo aya.ús'k |
| Potential | CVVC/ CV́C<br>uxsixook<br>ooxlitsík | CVVC<br>oongaaxaash | CV́VC/ CV́C<br>uxsiwáat<br>ookgaachák | CV́VC<br>agaaxwlisháat | CV́VC'/ CV́C'<br>akooxladáal'<br>oogaaxás' | CV́VC'<br>oongaa.óos' |
| Conditional | CV́Cni<br>asxúkni<br>altsíkni | CV́Cni<br>anaxáshni | CV́Cni<br>aswátni<br>akachákni | CV́Cni<br>agalshátni | CV́C'ni<br>akladál'ni<br>axás'ni | CV́C'ni<br>ana.ús'ni |

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² After proclitics kei, yei, eek, daak, daak, neil, and gunayéi the imperative stem form is CVVC.

In order to cross-reference the present discussion with Leer (1991) or Crippen (2012), it is important to be aware of the historically derived labels used for each of the stem variants. Leer (1991:160) proposes a series of 'stigmatic suffixes' which are thought of as combining with a root, and producing the stem in a given mode. These are not traditional suffixes in the sense that they are not necessarily pronounced at the end of the verb, but instead they affect the length and tone of the vowel in the verb stem. The stigmata correspond to different vowel phonation types in Tongass Tlingit (i.e. long, glottalized, fading) from which the tone system in Northern Tlingit is thought to have evolved. There are six stigmatic suffixes in total. Each stigmatic suffix plus root type renders a certain stem and is given a label accordingly, such as the ·-stem (derived from the long vowel in Tongass), the '-stem (derived from the glottalized vowel in Tongass), and the '-stem (derived from the fading vowel in Tongass). To illustrate, the ·-stem of any closed root is long and high (CV́VC) (see Leer 1991:168). Referring to Table 6 above, we can see that all verbs with closed roots take the ·-stem in the affirmative future, as they all have long high stems. Crippen (2012) calls these 'stem variation suffixes' and uses less opaque labels than Leer for some of them. While understanding how these stem variation suffixes pattern throughout the grammar is helpful in seeing the big picture, I have chosen to omit them from the present discussion. Instead, I have focused on presenting the resulting stem forms for each root type in each mode as plainly as possible in Tables 14 and 15 above. Those interested in learning more about the stem variation suffixes should consult Crippen (2012).