575 TLINGIT VERBS:

A STUDY OF TLINGIT VERB PARADIGMS

By

Keri M. Eggleston

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A

THESIS

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By

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ABSTRACT

The Tlingit language, indigenous to Southeast Alaska and neighboring parts of British Columbia and the Yukon territory, is related to the Athabascan languages and the recently extinct language Eyak. Like Athabascan and Eyak, Tlingit verbal morphology is highly complex. The conjugation of Tlingit verbs is unpredictable in certain respects, making the documentation of verb forms from native speakers critical, due to the highly endangered state of the language, and because this has never before been documented for Tlingit. The objectives of the research presented here are twofold: 1) to document complete paradigms for 575 verbs, and; 2) to create a reference for second language learners and teachers of Tlingit. For each of the verbs included in the research, twelve modes were systematically documented through consultation with a group of native speakers. The newly documented forms were compiled into a database using Toolbox software and additionally organized into a user-friendly online database, hosted on the Goldbelt Heritage Foundation website. Based on the documented forms, descriptions of each of the twelve modes were written, with second language students and teachers as the target audience. The descriptions of each mode include information pertaining to the semantics, morphology, and verb stem variation, and are intended to assist second language learners in mastering the difficult task of conjugating Tlingit verbs. Another critical item included for each verb entry is the verb theme, which illustrates all of its component parts including thematic prefix, conjugation prefix, classifier, and stem. The accompanying detailed description of each element of the verb theme serves as a grammatical sketch of the Tlingit verb for language learners. An additional result of the research is a set of nine prefix combination charts. Because the Tlingit verb has many prefix positions, there are a number of regular contractions that take place in conjugating a verb. The prefix combination charts illustrate the regular contractions that take place between the thematic prefixes, conjugation prefixes, aspect prefixes, subject prefixes, and classifiers, to name a few. These charts show language learners how to switch between subject prefixes for a given verb.

DEDICATION

In memory of my dear friends

Anita Lafferty *Sa<u>k</u>aayí* and June Pegues *Aan Ya<u>x</u> Saxeex*,

who contributed much to this project,

and to all those learning to speak the Tlingit language

Yee gu.aa yá<u>x</u> x'wán!

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ACKNOWLEDGMENTS

The process of systematically documenting Tlingit verb paradigms was initiated by Dr. Richard Dauenhauer and Nora Marks Dauenhauer in the 1990s as a necessary step toward completing the Intermediate Tlingit text book. As other projects began to take priority, Richard and Nora generously passed this project on to me, sharing all of their project files and data, and orienting me to their process. I am forever grateful to them for the opportunity to do this work and for their kind mentorship and support throughout my work with the language.

In order to document the verb forms contained in this resource, regular meetings were held with a core group of fluent elders in Juneau. This project would not have been possible without these talented individuals (listed here in alphabetical order), who served as regular consultants to the project at some point between 2005 and 2009: Lillian Austin, Irene Cadiente, George Davis, Anna Katzeek, David Katzeek, Anita Lafferty, John Marks, June Pegues, Helen Sarabia. I am in awe of these individuals for their intimate knowledge of their Tlingit language despite a history that would have it otherwise. Each of these elders brought a unique and valuable skill to the project. Words cannot express the honor and gratitude I feel for having had the opportunity to work with each of them.

Other fluent speakers have contributed on occasion in a variety of contexts including summer language programs or by answering questions over email. I thank all of those who contributed in this manner, listed here in alphabetical order: Lorraine Adams, Mary Anderson, Bessie Cooley, Nora Dauenhauer, Vida Davis, Ruth Demmert, Selina Everson, Lena Farkas, William Fawcett, Clarence Jackson, Paul Jackson, Nellie Lord, Ethel Makinen, John Martin, Alfred McKinley, Irene Paul, George Ramos, Walter Soboleff, Theodore Valle Sr., Frank White, and Fred White.

This project has benefitted from funding support from a variety of sources, beginning with the National Science Foundation and the National Endowment for the Humanities through their Endangered Language Program from award #0505392 to the Sealaska Heritage Institute, 2005-2008. This phase of the project involved documenting 230 verb paradigms. Funding for the next phase of the project, which resulted in the collection of another 300+ verb paradigms and the creation of the *575+ Tlingit Verbs* online database, came from the Administration for Native Americans award #90NL0416 to the Goldbelt Heritage Foundation in 2008-2009. From 2009-2012 the Administration for Native Americans funded a related project through the Goldbelt Heritage Foundation (award #90NL0460). Support during elicitation sessions with elders was provided by Dionne Cadiente-Laiti and Edward Hotch of Goldbelt Heritage Foundation and Donald Gregory of Sealaska Heritage Institute. They provided transportation for elders, traditionally prepared foods, and general support for every meeting. I thank them for their important contributions and for their kind attention to elders' needs throughout the project.

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I am extremely grateful to Dr. Jeff Leer who served as an expert consultant to this project throughout the duration. Dr. Leer tirelessly answered questions, especially in the early stages of the project as I became oriented to the complex world of

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1. Introduction

Tlingit is an indigenous language of Southeast Alaska and the neighboring parts of British Columbia and the Yukon Territory. Tlingit makes up one branch of the Na-Dene language family, Athabascan and Eyak comprising the other two. There are four major dialects of Tlingit, all of which are mutually intelligible: Northern, Transitional Southern, Sanya-Henya, and Tongass (Leer, 1991). The research presented here is largely based on the Northern dialect, as most project consultants are speakers of the Northern dialect**.** A few consultants however, are from the villages of Angoon and Kake. While Angoon is generally considered part of the Northern dialect and Kake the Transitional Southern dialect, research presented here finds that the two share a common feature which distinguishes them from their northern counterparts. For many verb stems containing the vowel *ei* in the Northern dialect, Angoon and Kake pronounce *ee.* For example, *akg̲wak'éix̲'* 'he's going to gaff it', as pronounced in the northern dialect, would be pronounced *akg̲wak'éex̲'* in Angoon and Kake. Wherever found, such variant stem forms are documented in each verb entry on the CD that accompanies this dissertation.

Although there is a swelling movement of dedicated second language learners, Tlingit is an endangered language. A current list of speakers in both the US and Canada, naming individuals, totals 114. Nearly all of these native speakers are over 80; younger exceptions are those who were raised by their grandparents.

1.1 Previous Research

Tlingit enjoys a relatively substantial body of work in and about the language. I will review here those most relevant to the present research.

Krauss (1976) lists several early European explorers who documented short wordlists of Tlingit, beginning with Chirikov in 1741, which marks the first European contact with the Tlingit. The Russian priest Veniaminov however, was the

first to produce a Tlingit grammar (1846). Veniaminov's grammar, though brief, covers the major word classes, identifies several verbal modes and tenses, provides a sample conjugation, and includes an extensive wordlist. Kelly and Willard (1905) offer complete conjugations of seven different verbs and includes the most comprehensive vocabulary at the time. However, their analysis of Tlingit is very English-centric. For example, several verbs are listed in the adjective section, presumably because of their English translations, and 'to have', a locative construction in Tlingit, is presented as a present-tense verb in the indicative mood.

Boas (1917) is the first comprehensive account of Tlingit grammar, and provides the foundation for contemporary work in Tlingit linguistics. His description of the basic patterns of stem variation is still followed almost 100 years later, though the determining underlying phonomena came later. His analysis of the verbal morphology is extensive, most notably his description of the classifier system. The vocabulary includes a substantial list of verb themes, many for which he documented the possible classifier-root combinations.

The next ground-breaking body of work in Tlingit linguistics comes in the form of master's theses by Constance Naish (1966) and Gillian Story (1966). Theirs were the most extensive analyses of the language at the time, and provided the most accurate account of the verb. The two theses overlap somewhat in content, with Story focusing on morphology and Naish on syntax. Naish and Story's (1973) verb dictionary remains the most comprehensive published documentation of verb themes, containing definitions and example sentences for about 2,200 themes. The verbs in the Tlingit index are presented as themes and include any thematic prefixes, the classifier, and verb stem. Because it does not document the conjugation prefix, stem variation, or imperfective types for each verb, it lacks the critical information for conjugating the verb. The only spoken forms of the verbs included are in the example sentences provided in the English index. As such, it is mainly

used by advanced learners for looking up the English definition of Tlingit verb themes. Because it is quite comprehensive in terms of the number of verb themes included, it is a valuable source for selecting new themes to research and for cross-referencing entries in the present research.

Foundational to the present research is Leer's (1991) dissertation, which provides a detailed analysis of the Tlingit verb, including the structure of the verb complex, the order of verbal affixes and their associated morphophonological rules, the morphology and semantics of each verb mode, and patterns of verb stem variation. This highly technical dissertation is intended for readers with a substantial background in linguistics and was a critical resource to the present research. A series of handwritten notebooks containing original research by Leer recently became available through the ANLC archives. These notebooks are the foundation of Leer's dissertation and Interior Tlingit Noun Dictionary (2001). Notes on the verb entries (1978) include the verb theme, some conjugated forms and many example sentences.

Nora Marks Dauenhauer and Richard Dauenhauer have published a four-volume series titled *Classics of Tlingit Oral Literature*, consisting in part of transcriptions of speeches given by native speakers of Tlingit. These are bilingual texts with Tlingit and facing English translations. The first three volumes (1987), (1990), and (1994) served as a valuable source to the present research for cross-referencing verb forms and obtaining select verbs in context.

Edwards (2009a) is the first dictionary of Tlingit to include all word classes and conjugated forms of the verbs. The example sentences for each entry provided a source for obtaining conjugated verb forms and for selecting new verbs to research for the present project.

Cable has produced a number of publications, some theoretical and others descriptive in nature. Cable (2011) analyzes insubordination in Tlingit, where phrases bearing subordinate marking do not actually function as subordinate phrases in the sentence. Cable (2010) examines pied-piping (the change of a language's basic word order due to the presence of an interrogative word) with evidence from Tlingit. Cable (2008) discusses A-scrambling in Tlingit (a phenomenon involving the subject and object of the sentence switching places, where the object comes before the subject). Cable (2005) is an alaysis of portmanteau allomorphy in Tlingit, looking at certain contractions of verbal prefixes. His most recent research resulted in a report detailing his findings regarding the modal force and permissible conversational backgrounds of the future and potential modes, and the semantics of the conditional and decessive (2012).

Crippen has produced a number of critical manuscripts covering a wide range of topics. In Crippen (2012), which is a comprehensive description of the structure of the Tlingit verb, he synthesizes the work of previous researchers, lending much clarity and insight into the topics presented. Crippen (2013) was compiled for a seminar he taught and provides a basic overview of Tlingit phonology, morphology, and syntax.

This dissertation is the first systematic document organizing the conjugated forms of Tlingit verbs and the first to unpackage and present information pertaining to conjugating Tlingit verbs in a pedagogical manner. There are six to seven critical forms that one must know in order to predict all other forms of a Tlingit verb, this discussed in more detail in Section 1.4. The goal of the present research is twofold: 1) to document the critical forms of several hundred Tlingit verbs, and; 2) to make the complex system of Tlingit verb conjugations accessible to the average learner. Note that I follow Leer (1991) in using the term "mode" throughout this dissertation as a cover term for inflectional categories traditionally called "tense/aspect/mood"

in other languages. Example Tlingit modes are imperfective, perfective, and future. The chapters describing each verb mode are written to the average language learner and are intended as a tool for learning the patterns of Tlingit verb conjugations.

1.2 Tlingit Sound Inventory and Orthography

The first practical orthography of Tlingit was developed in the 1960's by Gillian Story and Constance Naish and was published in Story & Naish (1969). Discovering a few pedagogical difficulties with the system, Nora Marks Dauenhauer, Richard Dauenhauer, and Jeff Leer collaborated on a revision of the orthography in which an underscore (rather than an h) was used to indicate a uvular consonant (k̲, g̲, x̲ instead of kh, gh, xh), and the letters representing vowels were regularized so that short vowels were written with one letter (a, i, e, u) and long vowels with two letters (aa, ee, ei, oo). (The Naish-Story system had u in place of a, o in place of u, and a in place of aa). This new version was published in Florendo (1972) and has since been the standard Coastal orthography. (Note that Interior Tlingit uses a different orthography, in which h is used to indicate a uvular consonant and vowels are all represented with one letter, length and tone indicated by different accent marks. You can find the details on the Yukon Native Language Center website at: www.ynlc.ca/languages/tl/tlalphabet.pdf). Table 1 lists the consonants found in the Northern Tlingit dialect. Where the orthography differs from the International Phonetic Alphabet (IPA), the IPA symbol is given to the right of the letter in brackets. The lowercase g with an underscore (the letter used to represent a uvular unaspirated stop) poses a problem in most fonts, as the underscore can be very difficult to see. The font chosen here is Cambria, which shows the underscore better than most (compare *g* (no underscore) with *g̲* (underscore)).

Table 1. Consonant Inventory for Northern Tlingit

		Alveolar		Post-alveo-lar	Velar		Uvular		Glot-tal
		central	lateral		plain	labial	plain	labial	
Stop	unaspirated	d			g	gw [gʷ]	g̲ [G]	g̲w [Gʷ]	. [ʔ]
	aspirated	t			k	kw [kʷ]	k̲ [q]	k̲w [qʷ]	
	glottalized	t’			k’	k’w [k’ʷ]	k̲’ [q’]	k̲’w [q’ʷ]	
Affri-cate	unaspirated	dz [ʣ]	dl [dɮ]	j [ʤ]					
	aspirated	ts [ʦ]	tl [tɬ]	ch [ʧ]					
	glottalized	ts’ [ʦ’]	tl’ [tɬ’]	ch’ [ʧ’]					
Frica-tive	voiceless	s	l [ɬ]	sh [ʃ]	x	xw [xʷ]	x̲ [χ]	x̲w [χʷ]	h
	glottalized		l’ [ɬ’]		x’	x’w [x’ʷ]	x̲’ [χ’]	x̲’w [χ’ʷ]	
Nasal		n							
Approximant				y [j]	ÿ [ɰ]			w	

Table 2 lists the vowels in Northern Tlingit. The IPA symbol is given in brackets to the right of the letter. Northern Tlingit has a two-tone system in which vowels have either high or low tone. High vowel tone is represented by an acute accent *(´)* over the vowel, as in *shá* ‘head’. For long vowels, the tone is indicated above the first vowel letter only, as in *sháa* ‘women’. For vowels with low tone, the tone is unmarked, as in *shaa* ‘mountain’.

Table 2. Vowel Inventory for Northern Tlingit

Long	Short/Reduced
ee [i:]	i [I]
ei [e:]	e [ɛ]
oo [u:]	u [ʊ]
aa [a:]	a [ʌ]

1.3 Overview of Tlingit Verb Structure

The verb in Tlingit carries much of the information of the clause – in fact, many natural Tlingit sentences consist solely of a single verb. Consequently, the verb in

Tlingit houses most of the grammatical complexity of the language, and is therefore something that learners truly must master in order to make themselves understood. In addition to its grammatical importance, the verbal morphology of Tlingit is highly complex. The Tlingit verb is templatic in structure, having eleven distinct prefix and suffix positions by Story and Naish's count (1973:349), thirteen by Leer's count (1991:Figure 17) and twenty-five by Crippen's count (2012:Table 10). Note that the discrepancy arises from whether or not bound phrases and auxiliaries are considered part of the verb template, and whether certain affixes are considered to hold the same position (or "order" as they are called in the linguistic literature). Table 3 illustrates the concept of a verb template and its component positions. Each piece of information attached to the verb stem (subject, object, time reference, etc.) must occur in a specific position in the template in relation to the others. (Note that each of the components in Table 3 will be discussed in detail in Chapter 2).

Table 3. Sample Verb Template

object	perfective	subject	classifier	verb stem

To further illustrate, consider Example (1) below. The first line given is the spoken form of the verb in Tlingit. The second line breaks the verb into its component parts. The third line gives an English translation and/or the position label of each component. The fourth line is the English translation of the verb. This example serves to illustrate the templatic nature of Tlingit, and shows that each component belongs in a specified position, following the order given in Table 3 above.

(1) *iwtusiteen*

i-	*wu-*	*tu-*	*si-*	*-teen*
you (object)	perfective	we (subject)	classifier	see (verb stem)

'we saw you'.

Note that the spoken form in Example (1) lacks the vowel from the perfective prefix *wu-*. Combining affixes results in phonological contractions which often drastically change their original sound. The prefix combinations are illustrated in the charts in Appendices A-I and are discussed for each mode in Chapters 4-14.

The conjugation of Tlingit verbs is unpredictable, making the documentation of as many verb forms as possible from native speakers a critical component to documentation of the language. To illustrate the concept of predictability in grammar, consider the predictable pattern 'walk-walked', 'stomp-stomped', and 'taste-tsated' in forming the English past tense, as opposed to the irregular (and unpredictable) pairs 'go-went', 'eat-ate', and 'think-thought'. Specifically, there are three elements of the Tlingit verb that are not predictable: 1) the conjugation prefix; 2) verb stem variation and 3) the imperfective type(s). Each Tlingit verb uses one of four conjugation prefixes (*Ø-, na-, ga-* or *g̲a-*). These prefixes surface in only a few of the verb modes, but have consequences in other modes. Tlingit verb stems have up to three variants with respect to vowel length and tone. However, without collecting the critical forms from a native speaker, there is no way to predict the number of variants for a given stem, and for some verbs, which variants will occur in each of the modes. There are a number of imperfective types in Tlingit, and without checking for each, there is no way of knowing which verbs have which imperfective types. In short, the only way to be sure about a Tlingit verb conjugation is by documenting the critical forms.

The CD that accompanies this dissertation contains just over 575 Tlingit verb paradigms and is based entirely on my database, created with the Toolbox software designed by the Summer Institute of Linguistics (SIL). This data is also displayed in an online database, *575+ Tlingit Verbs*, housed on the Goldbelt Heritage Foundation website at: http://www.goldbeltheritage.org/verbs/verbs/tlingit/1. Each verb entry on the

CD has the following components: a list of conjugated forms in twelve different modes; the theme as given in Story & Naish (1973) for cross-referencing; and the theme developed in the present research (please see Chapter 2 for a thorough description of the theme). Many of the verb entries additionally have example sentences. The twelve forms elicited from native speakers for this project include the following (note that (+/-) indicates that both the affirmative and negative are documented): imperative, prohibitive, imperfective (+/-), progressive imperfective, perfective (+/-), future (+/-), perfective habitual (+/-), hortative, potential attributive, potential decessive, conditional, and repetitive imperfective. At a minimum, each mode is documented with a 3rd person subject. For some verbs, both 1st and 3rd person subject forms are documented, because for some verbs it is necessary to know both in order to predict all other subject prefix combinations. For a few of the verb entries, all subject prefixes are included to serve as an example of a complete paradigm for the language learner.

1.4 Methodology

This project has benefitted from funding support from a variety of sources, beginning with the National Science Foundation and the National Endowment for the Humanities through their Endangered Language Program from award #0505392 to the Sealaska Heritage Institute, 2005-2008. This phase of the project involved documenting 230 verb paradigms. Funding for the next phase of the project, which resulted in the collection of another 300+ verb paradigms and the creation of the *575+ Tlingit Verbs* online database, came from the Administration for Native Americans award #90NL0416 to the Goldbelt Heritage Foundation in 2008-2009. From 2009-2012 the Administration for Native Americans funded a related project through the Goldbelt Heritage Foundation (award #90NL0460). One component of this project was to train ten Tlingit language teachers from across the region how to use the *575+ Tlingit Verbs* online database and to teach the material contained within, through a 3-year Tlingit linguistics course. Teaching this course

gave me the opportunity to confirm data with and obtain new examples from the numerous native speakers in attendance and to develop and field test the written descriptions of each verb mode with Tlingit language students and teachers throughout the region.

The research for this project was conducted through consultation with 30 different native speakers of Tlingit over the course of about five years (2005-2010). Regular meetings were established 2-3 times per week, for two hours per meeting. The research was generally conducted in consultation with 3-6 speakers at a time, depending on consultants' availability. Given the advanced age of the consultants, health issues tended to be an obstacle to regular meeting attendance. Other logistics included securing a comfortable meeting space, providing transportation to and from the meetings, making reminder phonecalls in advance of meetings, providing coffee, tea, and snacks for each meeting, and cleanup afterward. This research was conducted over a number of years under two different organizations and thankfully, I had help from staff in taking care of many of these logistics. Meeting space was provided by each organization (a conference room in the Sealaska building and a conference room at the Goldbelt Hotel). Travel was not necessary, as the bulk of the research was carried out in Juneau. A list of target verbs was prepared in advance of each session, including any information already known about the verbs (such as conjugation prefix or example sentences containing conjugated forms). For each of the verbs, a pre-set list of the twelve modes named above were documented. For many of the modes, it was straightforward to elicit the target forms from fluent speakers. Others, however, required more contextual background in order to get at the desired form. Using the simple, every-day verb 'eat' as an example, it was easy to elicit modes like the perfective 'he ate it', the imperative 'Eat it!', and the future 'he will eat it'. Other modes, such as the perfective habitual and the repetitive imperfective were trickier. Because the perfective habitual has a couple of different potential time references ('he would do it (habitually, in the past)' or 'he does it

every time X happens'), and because there are other modes in Tlingit that are similarly translated into English, this mode proved to be one of the most difficult to elicit. Obtaining the perfective habitual form often required setting up a scenario in which that particular form would be the most natural to use. For example, "John's cousin George lives in Seattle. George loves herring eggs, but can't get them in Seattle. Every time George comes to visit John in Sitka, they eat herring eggs." If one were to ask a speaker simply how to say "he eats it every time", one would probably end up with the imperfective habitual form (rather than the perfective habitual form), which means something more like "he always eats it". Similarly, the repetitive imperfective form was difficult to elicit. This form is used to depict an event or situation that happens regularly or repeatedly (but not necessarily every time X happens, as with the perfective habitual). The repetitive imperfective is even harder to tease out from the imperfective habitual, the two having very similar semantics, especially in their English translations. To elicit the repetitive imperfective form for "eat", a scenario such as the following would be provided: "Mary saw me buying ten bricks of cheese at the grocery store. She said, 'Whoa, who eats all the cheese at your house?' and I told her, 'My son eats cheese. He eats it on everything. We go through a lot of cheese.' " One would expect the repetitive imperfective form to surface given this scenario.

Some verbs in some modes were difficult to elicit because of their combined semantics. For example, it would require unusual circumstances to use the verb 'lose' in the imperative, as in 'Lose it!' For other verbs, target forms were culturally unacceptable to say. Respect for everyone is an extremely important value in Tlingit culture. For this reason, it was difficult to elicit many of the negative forms for such a verb. In such cases, the scenarios needed to be carefully constructed to get at the desired forms. If it was not possible to obtain a form, "[does not occur]" was entered in that field.

After each session, the newly collected data was incorporated into a database established using the Toolbox software. As part of a grant funded by the Administration for Native Americans to the Goldbelt Heritage Foundation in 2008, the online database *575+ Tlingit Verbs* was created from the Toolbox database for public access of the verb paradigms. As mentioned above, this is housed on the Goldbelt Heritage Foundation website. For this dissertation, the data was exported from my Toolbox database to be included on the accompanying CD. The process of formatting the data was made automatic during the export thanks to much help from Karen Buseman of SIL.

1.5 Overview of the Dissertation

Chapter 2 of the dissertation provides a detailed description of the verb theme. At the top of each verb entry the verb theme is given, followed by the Naish-Story theme for cross-referencing with their Tlingit Verb Dictionary (1973). A verb 'theme' is a schematic representation of a verb, the 'bare bones' of the verb, which serves to illustrate all of its component parts as well as any particulars pertaining to that verb. The Naish-Story theme contains only the verbs' thematic prefix(es), classifier and stem, used in their dictionary as a citation form in the Tlingit index. The theme given here was developed by Dr. Jeff Leer and adapted for the present research. This theme presents all of the minimally-required elements for each particular verb, and provides much of the information one needs to know in order to conjugate the verb. For example, the theme used here provides information pertaining to the verbs' conjugation prefix and verb stem variation, these not included in the Naish-Story theme. The verb theme is a very useful tool for understanding the structure of a verb and for conjugating a verb, and the detailed description in Chapter 2 of all theme elements will help students utilize this aspect of the dissertation and gain an understanding of Tlingit verb structure in general.

Chapter 3 is an introduction to verb stem variation, and provides the foundation for the discussion of this aspect of each mode in the ensuing chapters. Chapters 4-14 discuss each of the modes included in the verb paradigms on the CD (imperfective, perfective, imperative, etc.). For each mode, a description of the required morphology as well as the range of semantics is provided. This includes required aspectual prefixes, which form of the classifier is used in the affirmative and negative forms, any required preverbs, the conjugation prefixes, and the form of the verb stem. Chapter 15 brings to light several invariable verbs which have irregular forms in one or two modes, and Chapter 16 is the conclusion.

In the appendix are nine prefix combination charts. The verb template has many prefix and suffix positions. The various prefixes contract with each other, rendering new forms which often make it difficult to recognize the original prefixes. For example, consider the first person future form of the verb 'dance' given in (2) below, where the prefix string *a-ga-u-g̲a-x̲a* becomes *ak̲kwa-*.

(2) *a-ga-u-g̲a-x̲a-l'eix̲* → *ak̲kwal'eix̲* 'I will dance'

Because each mode in Tlingit requires a different set of prefixes, and because the prefix combinations are influenced by each subject prefix, there are a number of regular contractions the student must learn. The nine different prefix combination charts included in the appendix are required to illustrate the entire range of possible combinations. These charts are organized according to each possible prefix string, giving the subject prefixes along the y-axis and each of the 16 classifiers along the x-axis. Given a verb form with any subject prefix, forms for all other subject prefixes can be derived from these charts.

The CD in the pocket on the back cover contains the foundation of this research, having just over 575 Tlingit verb paradigms.

2. The Verb Theme

As first introduced in Section 1.3 above, the Tlingit verb is templatic, each piece of information occupying a specific position in the template. While there are up to twenty-five of these positions (depending on whether one chooses to lump or split various prefixes and suffixes), only the elements that are basic to a given verb are included in the theme. This means that any affixes that reference time, negativity, reciprocity, etc. are omitted from the theme because these are not the minimally required elements of any verb theme. For a full template of the Tlingit verb, please refer to Story & Naish (1973:349), Leer (1991:Figure 17), Dauenhauer & Dauenhauer (2000:213), and Crippen (2012:Table 10).

The method used here for representing a verb theme is based on that of Leer (1991), with a few minor adaptations meant to make the representation more transparent. For example, to indicate that a theme requires the D-component of a classifier, Leer uses '+D', while I simply include the letter d- (classifiers are discussed in detail in Section 2.3). Leer uses '*' to indicate a variable stem while I use '∼', since the asterisk is traditionally used in Linguistic literature to indicate an ungrammatical form. (Note that verb stem variation is discussed in Section 2.4 and Chapter 3).

In order to represent all of the minimally required elements of a Tlingit verb, a given theme will contain (maximally) the following elements: verb stem, classifier, subject, thematic prefix(es), object, conjugation prefix, verb type, and any required adverbial phrases, nominal objects, and postpositions (each of these will be described in this chapter in detail). The adverbial phrase, nominal object, and postpositional phrases occur before the verb word, and are written as separate words in the orthography. Therefore, these are given as a separate word, to the left of the verb, in the theme. It is important to understand however, that these elements are a basic part of the verb and are required in order for the utterance to be complete. The conjugation prefix

and verb type are given in parentheses following the verb word in the theme. As shown in Table 4 below, the conjugation prefix occupies a position between the thematic prefix and subject in the verb template, however it is given in parentheses following the verb in the theme because it only surfaces in a few verb forms. The following table illustrates the order in which the prefixes occur in the verb template.

Table 4. Thematic Elements of the Verb Template

object	thematic prefix(es)	conjugation prefix	subject	classifier	verb stem

At the top of each verb entry on the CD the verb theme is given, along with an English translation of the theme. It is important to read the theme translation in order to get the full meaning of the verb. A verb can have multiple meanings, however only one of those meanings is translated below each given verb form in order to save space. All the known possible meanings of the verb are given in the translation of the verb theme. Example (3) below is the theme for the verb *aadé aawatee* 's/he carried it there'. As was mentioned above, many verb themes in Tlingit have required elements beyond the verb word itself. *Aadé* 'there' in Example (3) illustrates this point, as this is a required part of this verb theme, and leaving it out renders an incomplete utterance. Note the use of 'for' in the English translation of the verb theme in (3). This is a convention adopted from Leer's work. I use it because it allows for the English verb to be in the infinitive form (not conjugated for person or tense), helping to convey the unconjugated nature of the Tlingit verb theme. The English translation as such will not be easily confused with the translation of an actual spoken verb form.

(3) *P-dé O-S-Ø-tee~ (na motion)*
'for S to carry, take O (general, often compact object) to P'

At first, the abstract and formulaic appearance of a verb theme can be alarming, but with a little practice, it can become a very useful tool for understanding the structure of a verb and for conjugating a verb (creating spoken forms of a verb in which person, tense, number, etc. are specified). In what follows each element of the theme will be described in turn, beginning with the *S* (subject). For simplicity, the conjugation prefix and verb type will be omitted from the themes until they are discussed in Section 2.9.

2.1 S (subject)

Let's begin by looking at the theme for the verb *datóow* 's/he reads; s/he is reading', given in Example (4).

(4) *S-d-tóow*
'for S to read'

Uppercase *S* represents the subject of the verb. The *S* in the theme indicates where the subject prefix goes. The subject prefixes in Tlingit are: *x̲a-* 'I', *i-/ee-* 'you', *tu-/too-* 'we', *yi-/yee-* 'you' (plural), or *du-* 'someone'. Note that the subject prefix for 'he/she/it' is *Ø-* (unmarked, not pronounced). The third person plural marker is *has* 'they', which goes to the left of the object prefix. The '*d'* in the theme above is the classifier, which is realized as *'da'* in the forms in (5a-f), and which will be discussed in detail in Section 2.3. The verb stem is *–tóow* 'read'. Replacing the *S* in the theme above with actual subject prefixes renders these spoken forms:

(5a) *x̲adatóow* 'I read; I am reading'
(5b) *idatóow* 'you read; you are reading'
(5c) *datóow* 's/he reads; s/he is reading'
(5d) *tudatóow* 'we read; we are reading'
(5e) *yidatóow* 'you all read; you all are reading'

(5f) *has datóow* ‘they read; they are reading’

(5g) *dutóow* ‘someone reads; someone is reading’

The fact that this verb only has a subject (and no object) makes it an intransitive verb. Note the *S* in the English translation of the theme above. The *S* in the English translation ‘for S to read’ corresponds to the *S* in the theme. This helps the reader keep track of who is doing what to whom when moving between the two languages.

2.2 O (object)

To discuss the object, let’s look at the theme for the verb *yak’éi* ‘he/she/it is fine’:

(6) ***O-****Ø-k’éi*
‘for O to be good, fine, pretty’

Uppercase *O* represents the object of the verb. This is where the object prefix goes. Tlingit object prefixes are listed in Table 5. The plural marker for third person object is the same as that for third person subject: *has*, which occurs before the object prefix. In the event of a third person plural subject and/or object, there is ambiguity as to whether the subject or object is plural and must be determined by context. For example, the verb *has awsiteen* can have the following meanings: ‘he/she/it sees them’; ‘they see him/her/it’; or ‘they see them’.

Table 5. Object Prefixes

Person	Prefix	English gloss
1.sg.	*x̲at-*	'me'
1.pl.	*haa-*	'us'
2.sg.	*i-*	'you'
2.pl.	*yee-*	'you (plural)'
3.sg. (neutral/recessive)	*Ø- / a-*	'him/her/it'
3.sg. (salient)	*ash-*	'him/her/it (salient)'
4. (human)	*k̲u-*	'someone'
4. (non-human)	*at-*	'something'
Reflexive	*sh- / Ø-*	'oneself'
Reciprocal	*woosh-*	'each other'
Partitive	*aa-*	'some of; one of'

While Naish (1966:127) treats the object pronominals as separate words, Leer (1991:122) and Crippen (2012:315) consider them to be verbal prefixes. In the orthography, only three of them (*i-, a-,* and *k̲u-*) are written as part of the verb word. These in particular are written as part of the verb word because, ending in a short vowel, these three contract with following prefixes, changing their sound (and hence spelling), making word division a tricky issue in these cases. For example, consider the verb in the phrase *tlél eesátk* 'you're not fast', which consists of the second person object prefix *i-*, the irrealis (negative) prefix *u-*, the *Ø-* classifier (which will be discussed in Section 2.3), and the verb stem *–sátk* 'fast'. Here, the object prefix *i-* and the irrealis prefix *u-* have contracted, resulting in the long vowel *ee-*.

A very important thing to note is that the third person object prefix *a-* is only present when all of the following conditions hold: 1) a subject is also required by the theme, 2) the subject is third person ('he, she, or it'), 3) if the subject is expressed as a noun phrase and has the *–ch* (ergative) suffix, the subject is NOT directly before

the verb, and 4) the object is indefinite. Otherwise it is unmarked (not present). Examples (7-9) will clarify. In (7), there is a subject and it is third person ('Mary'). The subject does not have the ergative suffix *(-ch)*. The object is indefinite (*x'úx'* 'a book' rather than *wé x'úx'* 'that book'). Therefore, the object prefix *a-* is present on the verb *atóow* in (7). In (8) the subject is first person plural *too-* ('we'), so the third person object prefix is not present. In (9) the object is definite *wé x'úx'* ('that book') and the third person subject has the ergative suffix ('Mary-*ch*'). Because of these conditions, the third person object prefix is not present in (9).

(7)	*Mary x'úx' atóow.*	'Mary is reading a book.'
(8)	*X'úx' tootóow.*	'We are reading a book.'
(9)	*Wé x'úx' Mary-ch tóow.*	'That book, Mary is reading it.'

The choice of third person object prefix (between neutral/recessive (*Ø-/a-*), and salient (*ash-*)) has to do with the "salience" of the referent in comparison to the subject. In Leer's words: "...the salient referent is the one with which the speaker identifies: a human as opposed to an animal, and usually also a Tlingit as opposed to an outsider, an adult as opposed to a child, a virtuous person as opposed to an evil one. The salient referent is typically the protagonist of a narrative sequence..." (1990:4). Therefore, in utterances in which the object is more salient than the subject, the object prefix *ash-* is used, and where the subject is more salient than the object, the neutral/recessive object prefix *a-/Ø-* is used. There are also syntactic restrictions as to when the salient object prefix *ash-* is used. These are described in detail in Leer (1990:3-4).

The reflexive object prefix *sh-* 'oneself' has the variant form *Ø-* when it comes before an incorporated inalienable noun. "Incorporated" means that it has become a basic part of the verb theme. An "inalienable" noun is one that must be grammatically possessed and refers to a part of something or someone that is seen as being

inseparable from its whole. Examples of inalienable nouns are *a ká* 'its surface', *a yá* 'its face', and *a x'é* 'its mouth'. These incorporated inalienable nouns fall into the category of "thematic prefix", and are discussed in Section 2.8. A pair of examples below will illustrate the uses of the alternate forms of the reflexive prefix. In (10) below, the *sh-* form of the reflexive object prefix is used, as there is no incorporated inalienable noun in the verb. In (11) from Leer (1991:98) however, the incorporated inalienable noun *ya-* 'face' is present, and therefore the *Ø-* form of the reflexive prefix is used.

(10) *sh wudi.óos'* 's/he washed herself/himself'

sh-	*wu-*	*Ø-*	*di-*	*-.óos'*
reflexive obj.-	perfective-	3.sg.subj.-	classifier-	-wash

(11) *yawdi.óos'* 's/he washed his/her (own) face'

Ø-	*ya-*	*wu-*	*Ø-*	*di-*	*-.óos'*
reflexive obj.-	thematic prefix.face-	perfective-	3.sg.subj.-	classifier-	-wash

Although classifiers are discussed in the following section (2.3), it should be noted here that both the reflexive and reciprocal object prefixes always co-occur with the D component of the classifier. For now, note the *di-* labeled 'classifier' in Examples (10) and (11) above, and compare with Example (12) below, where the classifier is *ya-*. Example (12) does not have either the reflexive or reciprocal prefixes and does not have the D component of the classifier. (There are also contractions taking place with the combinations of prefixes in Examples (11) and (12). This is discussed in Chapter 5 for perfective forms).

(12) *du yá aawa.óos'* 's/he washed his/her (another's) face'

du	*yá*	*a-*	*wu-*	*ya-*	*-.óos'*
his/her	face	3.sg.obj.-	perfective-	classifier-	-wash

Example (13) illustrates that the reciprocal prefix *woosh-* 'each other' also co-occurs with the D-component of the classifier. Note the *di-* in (13), as compared to the *ya-* classifier in (12) above. Also note the position of *woosh* with respect to *has*. *Woosh* is the only object prefix that occurs before the third person plural marker *has*.

(13) *woosh has wudi.óos'* 'they washed each other'

woosh	*has*	*wu-*	*di-*	*-.óos'*
reciprocal obj.-	plural	perfective-	classifier-	-wash

Not all Tlingit verb themes require an *S*. Themes which only require an *O* are called "objective", and have an *O*, but no *S* in the theme. This indicates that you must use an object prefix with this theme, not a subject prefix. Such themes then are neither transitive (having both *S* and *O*) nor intransitive (having only *S*). For example, let's go back to the verb *yak'éi* 'he/she/it is fine'. This is an objective verb which requires an object prefix, not a subject prefix, as indicated in the theme in (6) above. If we were to replace the *O* in the theme with actual object prefixes, we get the forms in (14a-g). Note that the third person forms *yak'éi* 'he/she/it is fine' and *has yak'éi* 'they are fine' do not have the third person object prefix *a*. This is because this verb has no subject, as just described above. (Note also the classifier *ya-* in these examples. This replaces the *Ø* in the theme in (6) above, and will be explained in Section 2.3).

(14a) *xat yak'éi* 'I am fine'
(14b) *iyak'éi* 'you are fine'
(14c) *yak'éi* 'he/she/it is fine'

(14d) *haa yak'éi* 'we are fine'
(14e) *yee yak'éi* 'you all are fine'
(14f) *has yak'éi* 'they are fine'
(14g) *kuyak'éi* 'people are fine' (also means 'the weather is fine')

Now, let's look at a transitive verb. A transitive verb theme is one with both a subject *S* and an object *O*. Consider the theme for the verb *altín* 's/he is watching him/her/it' in (15).

(15) *O-S-l-teen~*
'for S to look at, gaze at, watch O'; 'for S to watch, take care of, mind, look after O'

Replacing the *O* and *S* in the theme in (15) above with actual object and subject prefixes gives us the forms in (16a-i). Note also that the form of the classifier in these examples is *la* (described in Section 2.3) and the verb stem form is *tín* (verb stem variation described in Section 2.4 and Chapter 3).

(16a) *ixlatín* 'I'm watching you'
(16b) *xalatín* 'I'm watching him/her/it'
(16c) *xat ilatín* 'you're watching me'
(16d) *ilatín* 'you're watching him/her/it'
(16e) *xat latín* 'he/she/it is watching me'
(16f) *ilatín* 'he/she/it is watching you'
(16g) *altín* 'he/she/it is watching him/her/it'
(16h) *itulatín* 'we are watching you'
(16i) *has yilatín* 'you (plural) are watching them'

The first thing to note is that Example (16g) has the third person object prefix *a-* in *altín* 'he/she/it is watching him/her/it'. This is because the verb also has a subject AND that subject is third person *Ø-* 'he/she/it'. The third person object prefix *a-* is not present in any other forms. Note also that *ilatín* can mean both 'you're watching him/her/it' and 'he/she/it is watching you,' and must be determined by context. Remember that the third person subject prefix is always *Ø-* (unmarked) and the third person object prefix is unmarked unless the subject is also third person. This is why these two forms are identical. In *ilatín* 'you're watching him/her/it', the *i-* is the second person subject prefix, and in *ilatín* 'he/she/it is watching you', the *i-* is the second person object prefix.

Because of their meaning, some verbs are generally restricted to referring to third person 'it'. Such verbs are often descriptive in nature. The verbs *si.áat'* 'it's cold (inanimate object) and *yawdiɣíl* 'it's dull, blunt' serve as good examples. Because the third person subject prefix is unmarked and the third person object prefix is unmarked (unless there's a third person subject), these verbs have neither subject nor object marking. While we might assume that they are objective, since many known objective verbs tend to be descriptive, it is not possible to establish for certain given the absence of any pronominal morphology. Therefore, in conducting research with native speakers, whenever I was only able to obtain third person forms for a verb (and not first or second person forms), I documented the theme for that verb without *S* or *O*. This leaves these verb themes in a sort of syntactic limbo, as they are not considered either intransitive nor objective. In fact for these themes, as long as they are only applied to third person, we don't need to know whether they have subject or object pronominals. The themes for the examples just given follow in (17) and (18). Note the absence of *S* and *O*.

(17) *s-.áat'*
'for an inanimate object to be cold'

(18) *ya-d-g̲éel~*
'for an edge to be blunt, dull'

2.3 Classifiers

Let's begin the discussion of classifiers by looking at the theme for the verb *yat'éex'* 'it is difficult' in (19). (Note that as discussed in Section 2.2, this is a theme that has neither *S* nor *O*).

(19) *Ø-t'éex'*
'for something to be hard (abstract), difficult'

The classifier always comes immediately before the stem, the stem being the final element of the verb word in the theme, and the part of the word that carries the basic meaning of the verb. The classifier in the theme above is *Ø-* and the stem is *–t'éex'.* Every Tlingit verb is minimally comprised of a stem and a classifier. There are sixteen classifiers in Tlingit, and they can be grouped into four sets of four, as exemplified in Table 6 (adapted from Leer 1991: fig. 19 and Story & Naish 1973:369). The classifiers are first organized into four groups by their unifying consonant, which is most easily seen in the top row. From left to right, we have *s-, sh-, l-,* and *Ø-* (no consonant). Within each group of four, the classifiers are then organized according to vowel, the left column of each group containing *i-* (represented by +I, and called the "I component" in the literature), the right column not containing *i-* (represented by –I). Note the apparent exception in the final group, which contains *ya-* in the +I column. This is in fact consistent in that *i* and *y* are phonologically very similar, as you will notice when pronouncing them in succession. *Y* itself is the I component and takes a dissimilar vowel *(a)* to make it salient. This is supported by the fact that the *ya-* classifier indeed patterns with the other +I classifiers throughout the grammar. The other organizing feature is the presence of *d-* in many of the forms listed in the bottom row. We refer to this feature

as the “D component”, those in the bottom row having the D component, those in the top row lacking it. Note that I follow Leer in using the labels –D and +D (as opposed to Story & Naish’s ‘odd’ and ‘even’) and Leer’s +I and –I (as opposed to Story & Naish’s ‘A’ and B’) because Leer’s labels are more transparent.

Table 6. Classifiers

	+I	-I		+I	-I		+I	-I		+I	-I
-D	*si-*	*sa-*		*shi-*	*sha-*		*li-*	*la-*		*ya-*	*Ø-*
+D	*dzi-*	*s-*		*ji-*	*sh-*		*dli-*	*l-*		*di-*	*da-*

Every Tlingit verb has a classifier from one of the groups above. The actual form of the classifier (+I, -I, +D, -D) changes according to a variety of factors including mode, whether realis or irrealis, reciprocity, transitivity, as well as others. For example, for the most part, realis forms (which the speaker uses to assert something as a truth, or known fact) require the +I form of the classifier, as in *aw**si**.ée* ‘s/he cooked it’, while irrealis forms (which denote an untruth, whether a negative statement or something which is not yet true) require the –I form of the classifier, as in *agu<u>x</u>**sa**.ée* ‘s/he will cook it’.

Since the actual form of a classifier changes according to the grammar, the theme always presents the classifier of a particular verb simply as the representative consonant of its group: *s-, sh-, l-,* or *Ø-*(no consonant). The classifier is always given in a lowercase letter, thus the lowercase classifier *s-* is not to be confused with the subject prefix *S-,* which is given as an uppercase letter, as in the theme for: *awsi.ée* (‘s/he cooked it’) in (20).

(20) *O-**S-s**-.ee~*
‘for S to cook O’

To summarize what we've discussed so far, given the above theme, we know that this verb uses the *s-* group of classifiers *(si-, sa-, dzi-, s-)*. Most verb forms (except for the imperfective) require a specific form of each classifier group (either +I or -I). This means that a learner can predict which member of a classifier group will be used in a given mode for a given verb. For example, if we know that all negative perfective forms require the –I form of the classifier, and we know that the verb 'cook' uses the *s-* group of classifiers, we can predict that the negative perfective form will have the *sa-* classifier, as in *tlél <u>x</u>wasa.í* 'I didn't cook it'.

Regarding the Ø- group classifiers, the reason for using Ø- as the representative form even though it is not pronounced is that its alternate form *ya-* will appear in certain verb modes. By representing the classifier in the theme, this alerts the student to watch for *ya-* which sometimes contracts with a preceding syllable and is only apparent through the resulting vowel length. For more information on contractions in Tlingit, see the appendix in Dauenhauer & Dauenhauer (2002). See also Leer (1991:185-202) and the appendices of this dissertation for a complete set of prefix combination charts.

Verbs which exclusively use the +D forms of a classifier group are given in the theme as *d-* plus the consonant which represents the group. For example, the verb *<u>k</u>oowdzitee* 'he/she/it was born' always requires the D component of the *s-* classifier group (meaning that the classifier will either be *dz-* or *s-* throughout the paradigm), and this is represented in the theme accordingly, with *d-s-* directly before the verb stem, as shown in (21):

(21) *O-<u>k</u>u-**d-s-**tee~*
'for O to be, be in existence, live; for O to be born'

Note that when the D component of the *Ø-* group is required by a verb, just the *d-* is given in the theme, and the *Ø-* is omitted for simplicity. For example, see the theme for *awdigaan* 'it's sunny':

(22) *a-**d**-gaan~*
'for the sun to shine'

Given the *d-* in the theme above, we know that the classifier belongs to the *Ø-* group and will always be either *di-* or *da-* in conjugated forms. For more detailed information on the use of the D component and the +I/-I feature of classifiers, see Leer (1991:94-103).

2.4 Verb Stem Variation

Because Chapter 3 is dedicated to introducing the phenomenon of verb stem variation in detail, we will only touch on it briefly here in order to illustrate this element of the verb theme. Leer (1991) provides the first thorough analysis of verb stem variation, and Crippen (2013) makes the information much more accessible. The information presented here is based on these, and confirmed by the data on the CD. The stem is the final element of the verb theme. The stem of the verb *yasátk* 'he/she/it is fast' is *–sátk,* given in bold in the theme in (23).

(23) *O-Ø-**sátk***
'for O to be fast (at doing things)'

All verb stems are either variable or invariable. An invariable stem is one in which the tone and length of the vowel in the stem never change. For example, the stem of the verb *lidzée* 'it's difficult' is *–dzée*. This verb always has a long, high vowel *(ée)* in the stem, no matter the verb mode: *wulidzée* 'it was difficult', *kei gu<u>x</u>ladzée* 'it will be difficult', *tlél uldzée* 'it's not difficult', and so on. Invariable stems require no special

notation in the theme since they never change. Note however that there are some verbs with invariable stems that have irregular forms in one or two modes. These are illustrated in Chapter 15.

A variable stem is one in which the length and/or tone of the vowel in the stem changes with the verb mode. For example, note the changes in the stem vowel length and tone in the following forms: *aawa**x̲áa*** 'he/she/it ate it', *tlél awu**x̲á*** 'he/she/it didn't eat it', and *ag**a**x̲**aa*** 'let him/her/it eat it'. The stem changes from –*x̲áa* to –*x̲á* to –*x̲aa*, depending on the mode. A variable stem is indicated in the theme by a tilde (~) following the stem. Note the tilde following the stem in the theme for *aawax̲áa* in (24).

(24) *O-S-Ø-**x̲aa~***
'for S to eat O'

Variable stems can have two variants or three variants. The capital letter 'V' will be used here to represent any vowel letter (a, e, i, o, u). 'V́' (with an accute accent mark over it) represents any vowel letter with a high tone. Two-variant stems have either of the following stem length and tone patterns: V́ (short high) or V́V (long high). Three-variant stems have any of the following stem length and tone patterns: V́ (short high), V́V (long high), or VV (long low). For two-variant stems, the form given in the theme is the long high form: V́V. For three-variant stems, the form given in the theme is the long low form: VV. This way, the user will know how many variants a stem has by looking at the form given in the theme.

Table 7. Verb Stem Variation

Two variant stems:	V́	VV́ (form given in theme)	
Three variant stems:	V́	VV́	VV (form given in theme)

Here are some examples to clarify. For now, we'll just focus on the verb stem, which is given in bold in the examples. All of the prefixes and suffixes related to the different verb modes will be discussed in the ensuing chapters. The verb *aawasháat* 's/he caught it' has a two-variant stem. The stem is always either *–sháat* or *–shát*, depending on the mode. The stem has a long, high vowel in the perfective form: *aawa**sháat*** 's/he caught it' and in the future form: *kei akgwa**sháat*** 's/he will catch it', but a short high stem in the perfective habitual form: *aga**shát**ch* 's/he catches it (every time)' and in the prohibitive form: *Líl kei i**shát**jik!* 'Don't catch it!' Since this is a two-variant stem, the basic stem is considered the one with a long, high vowel, *-sháat* and is given as such in the theme, as illustrated in (25).

(25) *O-S-Ø-sháat~*
'for S to catch O; for S to grab, take hold of, snatch O; for S to arrest O; for S to trap O'

To summarize, the tilde following the stem indicates that the stem is variable. The long, high vowel in the stem tells the user that this is a two-variant stem, always being either long and high (*-sháat*) or short and high (*-shát*). This verb never has a long, low vowel in the stem.

An example of a verb with a three-variant stem is *has woo.**aat*** 'they walked'. This verb stem has a long, low vowel in the perfective form (just given), a long high vowel in the future form: *has guga.**áat*** 'they will walk', and a short high vowel in the perfective habitual form: *has na.**át**ch* 'they walk (every time)'. The stem that is

considered the basic stem is the one with the long, low vowel, *-.aat*, and is given as such in the theme in Example (26):

(26) *S-Ø-.aat~*
'for (plural) S to walk, go (by walking or as a general term)'

By noting the long, low vowel in the stem followed by the tilde in the theme, the user knows that this is a three-variant stem.

As will be discussed in greater detail in Chapter 3, verb roots can be divided into two major categories based on whether they have a final consonant: open (ending in a vowel) and closed (ending in a consonant). Open roots can be further subdivided into two groups based on their behavior in modes that require a suffix. The two groups are abstractly represented as CVV and CVV^{h}. A superscript ^{h} is used at the end of the root in the verb theme to notate that the theme belongs to the CVV^{h} category. This ^{h} is not pronounced as such, but alerts the user to the fact that the verb belongs to this category of roots, and thus follows a certain pattern of stem variation, the details of which are described at length throughout the following relevant chapters of the dissertation. For now, consider (27) which illustrates a theme that belongs to this category.

(27) *S-Ø-taa^{h}~*
'for S to sleep'

Be aware that the superscript ^{h} notates a certain type of open root and be assured that the implications will be described in detail in Chapters 3, 7, and 11.

2.5 P- (postpositional object) Plus Postposition

One class of verbs in Tlingit, called "motion verbs" are defined, in part, by the fact that they require a postpositional phrase. A postpositional phrase consists of a postpositional object (usually a noun or pronoun) and a postposition, and generally conveys information pertaining to the location or direction of motion described by the verb. For example, let's look at the theme for the motion verb *át uwagút* 's/he arrived there' in (28).

(28) *P-t~ S-Ø-goot~*
'for S to arrive at P, go to P (by walking or as a general travel term)'

This verb cannot occur without a postpositional phrase such as *át* 'there'. The presence of the *P-t~* in the theme indicates that having a postpositional phrase is an absolutely necessary part of the verb. This particular postpositional phrase is comprised of two elements: a postpositional object (pronoun) *á-* 'it, there', plus a postposition *–t~* 'at, to'. In the verb theme, the postpositional object is always represented by capital *P*. The postposition in the theme is fixed, since the particular postposition one uses changes the meaning of the verb, and sometimes the conjugation prefix, which will be discussed in Section 2.9. The *P* can be replaced with any noun or pronoun that makes sense for the particular verb, but the postposition must match the one indicated in the theme to retain the basic meaning of the verb. Note that in the relevant verb paradigms on the CD, the *P* is always replaced by the indefinite pronoun *á* 'it, there' in the given verb forms. This *á* can be replaced with any desired noun. To illustrate, let's replace the *P* in the theme in (28) above with a few different nouns while retaining the postposition *–t* throughout. In Example (29) below, we have replaced the *P* with *hoon daakahídi* 'store', in (30), we have *du <u>x</u>án* 'by him/her', and in (31) we have *<u>k</u>aa <u>x</u>'aká* 'meeting', all with the postposition *–t*. The verb word *uwagút* 's/he arrived' remains constant throughout.

(29) *hoon daakahídit uwagút* 's/he arrived at the store'

(30) *du x̲ánt uwagút* 's/he came to him/her'

(31) *k̲aa x̲'akát uwagút* 's/he arrived at the meeting'

Note the tilde following the postposition *–t~* in the theme in (28) above. As with its use with the variable verb stems, the tilde here represents variation. This particular postposition *–t~* 'at, to' has alternate forms that are used with different modes. The alternate forms are *–dé(i)* and *-x̲*. The form used in the perfective, imperative, and perfective habitual is *–t*; the form used in the future and progressive imperfective is *–dé(i)*; and the form used in the repetitive imperfective is *–x̲*, to name a few. These forms are illustrated in Table 8 below, all using the same verb theme.

Table 8. Variant Forms of the Postposition *–t~*

Post-position variant	Mode	Verb form	English
-t	perfective	*á**t** uwagút*	's/he arrived there'
	imperative	*Á**t** gú!*	'Go there!'
	perfective habitual	*á**t** ugootch*	's/he goes there (every time)'
	hortative	*át g̲agoot*	'let him/her go there'
	potential decessive	*át g̲wagoodín*	's/he would've gone there'
	conditional	*át gútni*	'if/when s/he goes there'
-dé(i)	progressive imperfective	*aa**dé** yaa nagút*	's/he is going there'
	future	*aa**dé** kg̲wagóot*	's/he will go there'
-x̲	repetitive imperfective	*á**x̲** goot*	's/he goes there (regularly)'

Most postpositions are invariable, and therefore are given in the theme without the tilde, as in the theme for the verb *át kala.át* 'they are lying there', given in (32) below. Note that this postposition *–t* is distinct from the one illustrated in Table 5 *(–t~)* in that it is not variable.

(32) *P-t ka-l-.át*
'for small objects to lie at P'

Another example of a postposition that is not variable is *–dáx* 'from', as in *aadáx woogoot* 's/he left there'. The theme for this verb is given in (33).

(33) *P-dáx S-Ø-goot~*
'for (singular) S to walk, go (by walking or as general term) away from P'

Using this verb, Examples (34-36) illustrate that the postposition *–dáx* 'away from' does not change with the mode:

(34) *du hídidáx woogoot* 's/he left his/her house' (perfective)
(35) *aasgutúdáx yaa nagút* 's/he is walking out of the woods' (progressive)
(36) *sgoondáx yoo yagútk* 's/he leaves school (regularly)' (repetitive)

Table 9 below lists the postpositions. The table was reproduced from the list of postpositions given in Leer (1991:33-34). The left column gives the linguistic label, the middle column gives the spoken form, and the right column gives the meaning and use of the postposition. Note that, as discussed above, the variant forms of the punctual postposition *–t~* are dependent on verb mode. The variant forms of the others (locative, ablative, and comitative) are chosen based largely on the ending sound of the word on which the postposition attaches. For a full descrption of these alternations, see Leer (1991:34-35).

Table 9. Postpositions

Label	Form	Meaning / Use
Ergative	*-ch*	'because of'; 'by means of' (indicates agent of transitive verb with definite object)
Punctual	*-t*	with position themes '(resting) at'
	-t~ (-t/-de(i)/-x)	with *Ø* conjugation themes '(coming) to, (arriving) at'
	-t	with *na* conjugation themes '(moving) about'
Pertingent	*-x*	'(in prolonged contact) at'; '(repeatedly arriving) at'; 'being, in the form of'
Locative	*-x'/-'/-Ø*	'at (the scene of)'; 'at (the time of)'
Vicinative	*-gaa*	'(distributed) in the area of, (going) after, (waiting) for'; 'about the time of'
Allative	*-de(i)*	'to, toward'; 'until'; (in lexicalized expressions) 'in the manner of'
Ablative	*-dáx/--tx*	'from, out of'; 'since'
Perlative	*-náx*	'along, via'; 'including the time of'
Comitative	*-tin / -(ee)n*	'(along) with, by means of'; 'as soon as'
Locative Predicative	*-u*	'is/are at'

2.6 N (nominal object)

Some verbs must be accompanied by a noun phrase to give their complete meaning. An example is *du tuwóo sigóo* 's/he is happy'. The noun phrase here is *du tuwóo* 'his/her mind, feelings' and the verb is *sigóo* 'happy'. The verb is not complete without the noun phrase. The theme for this verb follows in (37):

(37) *N toowú s-góo*
'for N to be happy, glad'

I follow Leer (1991:39) here in using the term 'nominal object' to refer to the posessor of a possessed noun. The posessor is considered an object of the noun because of the similarity in form and function of verbal object pronominals (described in Section 2.2) and nominal object (possessive) pronominals. The *N* element in the theme represents the nominal object, which means that *N* is the possessor of the noun that follows. The possessed noun is always specified in the theme, as it provides part of the basic meaning of the theme. Together, the possessor *N* and the possessed noun form the noun phrase which is required by the verb theme. *N* will always be replaced by either a possessive pronoun, a person's name, or a noun in actual spoken forms, the options for replacing *N* being restricted only by the meaning of the verb. The possessive pronouns in Tlingit are given in Table 10. Note that in the orghography, posessive pronouns are written as separate words. As was mentioned for the subject and object prefixes, the third person plural marker is *has*, which occurs before the third person possessive pronoun *du*, as in *has du* 'their'.

Table 10. Possessive Pronouns

Person	Pronoun	English gloss
1.sg.	*a<u>x</u>*	'my'
1.pl.	*haa*	'our'
2.sg.	*i*	'your'
2.pl.	*yee*	'your (plural)'
3.sg. (human, neutral)	*du*	'his/her'
3.sg. (human, salient)	*ash*	'his/her'
3.sg. (recessive)	*a*	'his/her/its'
4. (human)	*<u>k</u>aa*	'someone's'
4. (non-human)	*at*	'something's'
Reflexive	*chush / sh*	'one's own'
Reciprocal	*woosh*	'each other's'
Partitive	*aa*	'some of its; one of its'

If we replace the *N* in (37) with actual possessive pronouns, we get the forms in (38a-c):

(38a) *a<u>x</u> toowú sigóo* 'I'm happy'
(38b) *yee toowú sigóo* 'you all are happy'
(38c) *has du toowú sigóo* 'they are happy'

Here is another example of a verb that requires a noun phrase: *a yá<u>x</u> yatee* 'he/she/it is like it', where *yá<u>x</u>* is a noun meaning 'similar to, like', and *a* is its posessor meaning 'its', *a* replacing *N* in the theme in (39).

(39) *N yá<u>x</u> O-Ø-tee~*
'for O to be like, similar to N'

Here, we can replace *N* with a pronoun, a person's name, or a noun. Examples are given in (40a-c).

(40a) *du yáx yatee* 'he/she/it is like him/her'
(40b) *John yáx yatee* 'he/she/it is like John'
(40c) *keitl yáx yatee* 'he/she/it is like a dog'

As was described for the object prefixes in Section 2.2, the refexive and reciprocal possessive pronouns require the D component of the classifier. Compare (41b) and (41c) below, where (41b) uses the recessive pronoun *a-* and (41c) the reflexive pronoun *sh.* In (41b) the classifier is *la-* (which doesn't have the D component) and in (41c) the classifier is *l-* (which does have the D component). (Review Table 6 in Section 2.3 for the D component and classifiers). Example (41a) gives the theme for the verbs in (41b) and (41c). Example (41c) comes from Hotch (2005).

(41a) *N káx x'a-S-l-.aat~* 'for (plural) S to speak on behalf of N'
(41b) ***a*** *káx yoo x'atu**la**.átgi* 'that we speak for the benefit of it'
(41c) ***sh*** *káx yoo x'atoo**l**.átgi* 'that we speak for ourselves'

The choice between neutral, salient, and recessive third person possessive pronouns is based on the same factors as for the object prefixes, as described in Section 2.2.

Sometimes noun phrases with postpositions are required by a verb. An example is *du jeet aawatée* 's/he gave it to him/her', the theme illustrated in (42):

(42) *N jee-t~ O-S-Ø-tee~*
'for S to give, take, hand O (general, esp. abstract objects) to N'

Here we have a possessor *N* followed by the noun *jee-* 'hand' with the variable postposition *-t~* 'at, to'. The *N* can be replaced by a possessive pronoun or a person's name. See Examples (43a-c) below.

(43a) *Ax jeet tí!* 'Give it to me!'
(43b) *Mary jeet aawatée* 's/he gave it to Mary'
(43c) *i jeedé kgwatée* 's/he will give it to you'

2.7 Adverbial Phrases

Some verb themes require an adverbial phrase; this is indicated by way of *(yéi)* to the left of the verb in the theme. The parentheses indicate that an adverbial phrase is required by the theme, but it does not necessarily have to be *yéi* 'thus, so'. *Yéi* is simply there as a placeholder to show that the verb requires an adverbial phrase. Here is an example: *yéi yatee* 'he/she/it is that way'. The theme for this verb is in (44).

(44) *(yéi) O-Ø-tee~*
'for O to be (that way)'

The definition of an adverbial phrase, for our purposes here, is any phrase that describes the time, location, number or manner of the verb. The options for replacing *yéi* in the theme above are relatively unlimited. (45a-c) are some examples, where *daax'oon* translates as 'four', *wáa sá* as 'how', and *adawóotl'* as 'trouble'.

(45a) *daax'oon yatee* 'there are four'
(45b) *Wáa sá iyatee?* 'How are you?'
(45c) *adawóotl' yatee* 's/he is in trouble, having a hard time'

Verbs such as this one rely on the adverbial phrase to provide the full meaning of the phrase. *Yatee* by itself just means 'is', and requires the adverb to convey the rest of the meaning. Another example of such a verb is *yéi yaawakaa* 's/he said that', the theme for this verb given in (46) below. Here, *yéi* can be replaced with an adverb such as *wáa sá* 'what' as in *wáa sá yaawakaa?* 'what did s/he say?'. The important thing to remember is that when a verb theme contains *(yéi)*, it means that an adverb must accompany that verb, and that *yéi* can be replaced by a different adverb, depending on the desired meaning. For verb themes with *yéi* (no parentheses), the *yéi* is always required and cannot be replaced. An example is the theme given in (47) below, where the *yéi* in *yéi jiné* 's/he works; s/he is working' is part of the verb phrase and cannot be replaced with anything else. Note the lack of parentheses in this theme.

(46) *(yéi) ya-S-Ø-kaa~*
'for S to say (a certain thing)'

(47) *yéi ji-S-Ø-nei~*
'for S to work; for S to do'

2.8 Thematic Prefixes

Some verb themes contain prefixes other than subject, object, and classifier, etc. These prefixes are called "thematic" because they are a basic element of the verb theme. The most common thematic prefixes are *ka-* 'surface'; *ya-* 'face'; *ji-* 'hand'; *tu-* 'inside, mind'; *x'a-* 'mouth'; and *ku-* 'weather'. The thematic prefixes preceed the subject prefix *S* and follow the object prefix *O*. While it is sometimes clear how the thematic prefixes relate semantically to the verb theme to which they belong, this is not always the case. An example is the verb *yéi jiné* 's/he is working'. The theme is given in (48). Here it is clear that the meaning of the theme 'work' relates to the thematic prefix *ji-* 'hand'.

(48) *yéi ji-S-Ø-nei~*
'for S to work; for S to do'

An example of a theme containing a thematic prefix that is not so clearly related to the meaning of the verb is that of the verb *akawlineek* 's/he told the story of it', which contains the *ka-* 'surface' prefix, given in (49):

(49) *O-ka-S-l-neek*
'for S to tell the story of O; for S to talk into O'

The thematic prefix *ku-* is used with verbs that describe the weather. Here is an example: *kuyak'éi* 'the weather is good'. Note that this form is just like *yak'éi* 'he/she/it is good', plus the thematic prefix *ku-* which refers specifically to the weather. The theme for this verb is given in (50).

(50) *ku-Ø-k'ei~*
'for the weather to be good'

For some themes, the third person object prefix *a-* is lexically specified. For these themes, the *a-* does not refer to any participant and cannot be interchanged with another object prefix. The *a-* in such themes is thus considered a thematic prefix. Examples are *al'eix* 's/he is dancing', *al'oon* 's/he is hunting', and *ast'eix* 's/he is trolling'. The themes for these verbs are given in (51-53) below. Note that these are intransitive verbs, having only *S* in the theme, and no *O*.

(51) *a-S-Ø-l'eix*
'for S to dance'

(52) *a-S-Ø-l'óon*
'for S to hunt'

(53) *a-S-d-s-t'ei<u>x</u>*
'for S to fish with hooks, catch on a hook, troll'

To distinguish between the thematic use of *a-* and its use as a third person object prefix for a given theme, it is necessary to see whether the *a-* is present with a subject other than third person. For example, given the verb *al'ei<u>x</u>* 's/he is dancing', we can't be sure whether the *a-* is thematic, or an object prefix, since the subject is third person, and the presence of a third person object prefix *a-* would be possible (potentially referring to 'it' (as in a type of dance, for example)). However, given the first person form *a<u>x</u>al'ei<u>x</u>* 'I am dancing', we see that the *a-* is still present and therefore is a thematic prefix and not an object prefix. (Remember from Section 2.2 that the third person object prefix is unmarked unless the subject is also third person).

Compare the intransitive theme in Example (52) above with the transitive theme in (54) below. In this pair of themes, the intransitive one requires the thematic prefix *a-* and the transitive counterpart requires an object, which means that the third person forms for these two themes will be the same: *al'óon* 's/he is hunting' (intransitive) and *al'óon* 's/he is hunting it' (transitive). The distinction is there however, for subjects other than third person. Compare *a<u>x</u>al'óon* 'I am hunting' (intransitive) to *<u>x</u>al'óon* 'I am hunting it' (transitive).

(54) *O-S-Ø-l'óon*
'for S to hunt O'

2.9 Conjugation Prefixes

All verbs except motion verbs belong to precisely one of four conjugation categories. These categories are defined by a representative conjugation prefix (*Ø-*, *na-*, *ga-*, or *ga-*) which surfaces in certain modes, and by patterns of verb stem variation. In other words, verbs belonging to the same conjugation category will use the same conjugation prefix, and will follow the same patterns of verb stem variation (first described by Boas (1917) and elaborated upon by ensuing scholars including Story & Naish (1966, 1973) and Leer (1991)). (Motion verbs can use all four conjugation prefixes and are described in further detail in Section 2.10). Knowing the conjugation prefix associated with a given verb is critical for conjugating the verb (altering its form according to the grammatical rules) for certain modes. For example, the conjugation prefix surfaces in the imperative (command) form, but not in the imperfective. Consider the verb *al'eix* 's/he is dancing', which uses the *na-* conjugation prefix, as seen in the imperative form in (55):

(55) *A**na**l'eix!* 'Dance!'

The imperative form of a verb reveals which conjugation prefix the verb uses. Compare (55) above to (56), which gives the imperative of the verb *yak'éi* 'he/she/it is good', which belongs to the *ga* conjugation category:

(56) *l**ga**k'éi!* 'Be good!'

Other verb forms requiring the conjugation prefix are the hortative ('let'), perfective habitual ('every time'), potential ('might'), and conditional ('if/when'). To summarize, it is impossible to conjugate a verb for these forms without knowing which conjugation category it belongs to. In the verb theme, the conjugation prefix is given in parentheses directly after the stem (as is the verb type, which will be discussed in Section 2.10). Note that the information in parentheses has been

omitted up until this point for the sake of simplicity. The complete theme for the verbs mentioned above *al'ei<u>x</u>* 's/he is dancing' and *yak'éi* 'he/she/it is good' are given in (57) and (58) below:

(57) *a-S-Ø-l'ei<u>x</u>~ (na act)*
'for S to dance'

(58) *O-Ø-k'éi (ga state)*
'for O to be good, fine, pretty'

For some verbs, because they only occur in certain modes which don't require the conjugation prefix, it is impossible (and irrelevant) to know which conjugation prefix the verb takes. In these cases, we leave that information out of the theme. An example is *át la.át* 'they're lying there'. The theme for this verb is given in (59):

(59) P-t l-.át (position)
'for several things to lie at P; for several persons or animals to lie dead, unconscious, or incapacitated at P'

Because this verb only occurs in the imperfective form, and the conjugation prefix is not required in the imperfective form, we don't need to know what conjugation prefix it takes. Therefore, the verb theme simply gives the verb type in parentheses, omitting the conjugation prefix. For a more detailed description of the conjugation prefixes, see the appendix of Story & Naish (1973).

2.10 Verb Theme Types

There are four main types of verb themes: active, stative, eventive, and motion. The type of each is given in the theme in parentheses following the conjugation prefix, using the abbreviations *act, state, event,* and *motion*. Each type is unique in its

argument and postposition requirements, as well as bearing a slightly different paradigm. These unique qualities of each type play a crucial role in the verb paradigm, and a description of each, along with concrete examples, will serve to help readers understand the layout and content of the verb paradigms on the CD.

Active and stative verb themes have basic imperfective forms while eventive and motion themes do not. A "basic" imperfective form is defined semantically as one which indicates a present or incomplete situation and formally as one which lacks any morphology (prefixes, suffixes) beyond that basic to the verb theme. Eventive and motion themes use progressive imperfective or repetitive imperfective forms to indicate a present continuous action. Stative themes use the +I form of the classifier in the basic imperfective form, but active themes, with a few minor exceptions, do not. For example, consider the stative verb *lidzée* 'it is difficult', whose imperfective form uses the +I classifier *li-,* as compared to the active verb *aklas'úk* 's/he's frying it', which uses the –I form of the classifier *la-* in the imperfective. Motion themes require a word or phrase that specifies the direction of motion (either an adverb or a postpositional phrase) while no other verb theme types do. Table 11 outlines these differences. Note that "N/A" indicates that the column is not applicable to the associated verb theme type.

Table 11. Verb Theme Types

Do verb themes of this type...	have a basic imperfective form?	use the +I form of the classifier in the basic imperfective form?	require a word or phrase that specifies direction of motion?
active	yes	no	no
stative	yes	yes	no
eventive	no	N/A	no
motion	no	N/A	yes

Of these four verb theme types, motion verbs require the most extensive explanation. As was stated earlier, each verb belongs to one of four conjugation categories: *na, ga, g̲a, or Ø* (unmarked). Motion verbs can in fact belong to all four. The conjugation category of a motion verb is determined by the direction word or phrase that accompanies it. "Direction words" consist of adverbs such as *kei* 'up', *yei* 'down', and *daak* 'out to sea; out into the open', and postpositional phrases such as *aadé* 'toward there', *aadáx̲* 'from there', and *a tóonáx̲* 'through it'. Each of these direction words/phrases, no matter which motion verb it accompanies, belongs to one of the four conjugation categories. Therefore, it is the direction word/phrase and not the verb itself that determines the conjugation category of a motion verb theme.

To illustrate this point, consider the postposition *–dáx̲* 'from'. This belongs to the *na* conjugation category. Any motion verb theme accompanied by the postposition *–dáx̲* then, will take the *na-* conjugation prefix. Three examples, all given in the imperative form to show the conjugation prefix, are *Aadáx̲ nagú!* 'Leave there!', *Aadáx̲ naxóot'!* 'Drag it out of there!', and *Aadáx̲ nak̲oox̲!* 'Drive away from there!', their themes given in (60), (61), and (62) respectively.

(60) *P-dáx S- Ø-goot~ (na motion)*
'for (singular) S to walk, go (by walking or as a general travel term) away from P'

(61) *P-dáx O-S- Ø-xóot'~ (na motion)*
'for S to drag, pull O (esp. person) away from P'

(62) *P-dáx S- Ø-koox~ (na motion)*
'for S to travel, go away from P (in a boat, car)'

For comparison, let's consider the (variable) postposition *–t~* '(arriving) at, to', which belongs to the *Ø* conjugation category. Here are three examples using the same verb stems as above, but with the *–t~* postposition, all given in the imperative form: *Át gú!* 'Walk to it!', *Át xút'!* 'Drag it to it!', and *Át kúx!* 'Drive to it!' Note that the verb stem length and tone change depending on the conjugation category. The themes for these verbs are given in (63), (64), and (65) respectively.

(63) *P-t S- Ø-goot~ (Ø motion)*
'for (singular) S to arrive at P, go to P (by walking or as a general travel term)'

(64) *P-t~ O-S- Ø-xóot' (Ø motion)*
'for S to drag, pull O (esp. person) to P'

(65) *P-t~ S- Ø-koox~ (Ø motion)*
'for S to travel, go to P (by boat, car)'

The next set of examples serve to contrast between the variable postposition *–t~* (which belongs to the *Ø* conjugation category) and the invariable postposition *–t*,

which belongs to the *na* conjugation category and means 'around, about'. Examples (66-68) use the same verb stems as above: *Át nagú!* 'Walk around!', *Át na<u>x</u>óot'!* 'Drag it around!', and *Át na<u>k</u>oo<u>x</u>!* 'Drive around!' The themes for these verbs are given in (66), (67), and (68) respectively.

(66) *P-t S- Ø-goot~ (na motion)*
'for (singular) S to walk, go (by walking or as a general travel term) around at P'

(67) *P-t O-S- Ø-<u>x</u>óot'~ (na motion)*
'for S to drag, pull O (esp. person) around at P'

(68) *P-t S- Ø-<u>k</u>oo<u>x</u>~ (na motion)*
'for S to travel, go around at P (in a boat, car)'

Within each of the four conjugation categories, these direction words and phrases can be further grouped according to prefixes that may be required on the verb theme as well as the type of repetitive imperfective form that a verb using that particular group of direction words takes. Leer (1991) uses the term "derivational string" to describe these direction word plus conjugation prefix plus any other required verbal prefix combinations, and there are roughly sixty derivational strings which fall into nine groups (six groups within the *Ø* conjugation category, and one each in the *na*, *ga*, and *<u>g</u>a* categories). These groups of derivational strings appear in Leer (1991:295-297) and in the appendix of Edwards (2009a). On the CD attached to this dissertation motion verbs are followed by a roman numeral in the English gloss and this numeral corresponds to the group of derivational strings to which the theme belongs. At the top of each motion verb entry, in the section labeled "alternate adverbial phrases", the complete list of direction words/phrases belonging to the group is given. For example, the top portion of the entry 'go on foot

(singular subject) I' is reproduced in Table 12 below. Note that the 'I' indicates that this theme belongs to Group I, and can be cross-referenced with the appendix of Edwards (2009a).

Table 12. Sample Motion Verb Entry

go on foot (singular subject) I

Theme: kei S-ø-goot~ (ø motion)
for (singular) S to walk, go up (by walking or as general term)

Naish-Story: ya-goot

Alternate Adverbial Phrases

kei	moving up
ux kei	moving out of control, blindly, amiss; going the wrong way
N x'éi kei	catching up with N
yei	getting out of a canoe, boat, vehicle
yeek / yeik / eeñ	moving down; moving toward beach, shore
héeni yeek	moving down into the water
daak	moving up from beach, back away from open, inland
kwáakx daak	doing by mistake, erroneously
daak	moving out to sea, into open, onto fire
kux / kúxdei	returning, going/coming back
P-x' kux	returning to P

Group I consists of eleven different direction words and phrases. The defining characteristics of Group I are that: 1) they belong to the *Ø* conjugation category, and 2) verbs accompanied by any of these nine direction words will have a *–ch* suffix in the repetitive imperfective form. Group I direction words have in common the general meaning of motion toward an area (Leer, 1991). Verb stem tone and length vary from group to group, but are always consistent within a group for a given mode and for a given verb. For example, if we know that the verb stem *–goot* 'to walk' has a short, high vowel in the perfective form when accompanied by *kei* as in *kei uwagút* 's/he walked up', then we know that the perfective form for that verb will also have

a short, high stem when accompanied by any other direction word from Group I, such as in *daa<u>k</u> uwagút* 's/he walked up from the beach' and *<u>k</u>u<u>x</u> uwagút* 's/he walked back'. Let's consider the repetitive forms for Group I. If we know that *kei gútch* is the correct way to say 's/he walks up (regularly),' we know that *daa<u>k</u> gútch* is the correct form for 's/he walks up the beach (regularly)' and *<u>k</u>u<u>x</u> gútch* is the way to say 's/he returns (regularly).' So, given a complete motion verb paradigm using a direction word from a particular group, we can confidently replace that direction word with any other direction word from that same group and know that the verb paradigm will remain the same. This information is extremely helpful, since if a language learner has access to a verb with a direction word from a particular group, the learner can simply replace that direction word with another from the same group to change the meaning to the desired direction, without changing other parts of the verb. While there is a wide variety of possible motion verb plus direction word combinations, four common verb stems have been systematically included in the data on the CD using at least one direction word from each of the nine groups. These verb stems are *-goot* 'for a singular subject to go by foot'; *-.aat* 'for plural subjects to go by foot'; *-<u>k</u>oo<u>x</u>* 'to go by motor vehicle'; and *–taan* 'to carry, take a container or hollow object'. Looking up these entries will help shed light on the system of motion verbs. There is, of course, much more to say about motion verbs, but this should provide enough of a foundation to reference the verb paradigms on the CD included with this dissertation and understand the basic structure of motion verbs.

In addition to the four verb theme types just illustrated, there is one minor type yet to be discussed, and that is position verb themes. Position verb themes describe the physical position of a person or object, only occur in the imperfective form, and tend to require the postposition *–t*, although not all do. Note that this is a third postposition *–t*, distinct from the two others previously described, and used only with position themes, meaning '(resting) at'. An example of a position verb is *át tán*

('it is lying there'). In this case, the postpositional phrase is required and the theme is as given in (69):

(69) *P-t Ø-tán (position)*
'for a container or hollow object to lie at P'

Another example of a position verb is *.áa* 's/he is sitting'. To say 's/he is sitting there,' the postposition *–t* 'at' is used, as in *át .áa*. The postpositional phrase *át* 'there' is not required however, and the conjugation prefix is unknown so the theme is simply as given in (70):

(70) *S-Ø-.aa~ (position)*
'for (singlular) S to sit, be seated'

2.11 Review of the Verb Theme

Table 13 provides a review of the elements of a Tlingit verb theme. Some themes require a noun phrase, consisting of a nominal object (represented by *N* in the theme) and a posessed noun. The *N* in the theme can be replaced by a possessive pronoun, a personal name, or a noun, and serves as the possessor of the noun it precedes. The posessed noun is always specified in the theme, as it provides part of the core meaning of the verb theme.

Some themes require a postpositional phrase, consisting of a noun or pronoun plus postposition. The interchangeable part (noun or pronoun) is represented by *P* in the theme and serves as the base to which the postposition attaches. The postposition is always specified in the theme and is not interchangeable without changing the basic meaning of the theme. If the postposition is followed by a tilde, this indicates that the postposition is variable, dependent on the verb mode.

Some themes require an adverbial phrase, which provides the time, location, number, or manner of the verb. If the adverbial phrase is given in parentheses, then it is interchangeable with any other adverb that gives the desired meaning. If the adverbial phrase is given without parentheses, then it is not interchangeable, but is part of the theme as specified.

Any required noun phrase, postpositional phrase, or adverbial phrase required by a theme is given to the left of the verb word in the theme. In Table 13 below elements represented in uppercase letters are those which are substituted for actual words/phrases/prefixes when creating a spoken form of the verb. Elements given in lowercase are specified in the theme and are not interchangeable. The exception here is the adverbial phrase which is given both in parentheses (interchangeable) and without (not interchangeable) to more closely represent what is found in an actual theme.

The required elements of the verb word are given with hyphens between each part, and can include object (indicated in a theme as *O*), thematic prefix(es) (such as *ka-, ya-, x̲'a-*, *tu-*.), subject (given in a theme as *S*), classifier, and verb stem. The verb theme's conjugation prefix (cp in Table 13) and type are given in parentheses following the verb word. The conjugation prefix will be *na-*, *ga-*, *g̲a-,* or *Ø-*. The verb type will be act, state, event, motion, or position.

Table 13. Elements of a Verb Theme

N + possessed noun P-postposition (adverbial phrase) *or* adverbial phrase	O-thematic prefix-S-classifier-stem	(cp, type)

3. Introduction to Verb Stem Variation

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 gu̲gagóot* 'she will go there', and; the long low stem *(-goot)* occurs in the hortative mode: *át g̲agoot* '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 *ax̲'awóos'* 's/he's asking him/her' (imperfective). The stem *-wóos'* remains the same throughout the paradigm: *ax̲'eiwawóos'* (perfective) and *tlél ax̲'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: *alyéix̲* 's/he is building it' (imperfective); *awliyéx̲* (perfective), and; *tlél awulyeix̲* (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 (*-yéx̲*), a short, high vowel in the perfective (*–yéx̲*), and a long, low vowel in the negative perfective (*-yeix̲)*. 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 g̲a*) 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 *g̲a*) 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 g̲a* 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		CVV^{h}	
Conjugation prefix	Ø	na, ga, g̲a	Ø	na, ga, g̲a
Examples	-x̲aa~ 'eat it' -shaa~ 'get married'	-haa~ 'plant it'	-taa~ 'steam it' -koo~ 'know it'	-taa~ 'sleep'
Perfective (+)	CV́V aawax̲áa / wuduwasháa	CVV akaawahaa	CV́V awsitáa / awsikóo	CVV wootaa
Perfective (-)	CV́ tlél awux̲á / tlél wuduwashá	CVV tlél akawuhaa	CV́ tlél awustá / tlél awuskú	CVV tlél wutaa
Imperative	CV́/CV́V X̲á! / Idusháa!	CV́ Akanahá!	CV́/CV́V Satá! / Sakóo!	CV́ Natá!
Perfective Habitual	CV́Vych oox̲áaych / dusháaych	CV́Vch[1] akanahéich	CV́Vych oostáaych / ooskóowch	CVVch nateich
Progressive Imperfective	CV́Vn yaa anax̲éin / ---	CV́Vn yaa akanahéin	CV́Vn --- / yaa anaskwéin	CV́Vn yaa natéin
Future (+)	CV́V akg̲wax̲áa / gax̲dusháa	CV́V akakg̲waháa	CV́V agux̲satáa / agux̲sakóo	CV́V gug̲atáa
Future (-)	CVV tlél akg̲wax̲aa / tlél gax̲dushaa	CVV tlél akakg̲wahaa	CVV tlél agux̲sataa / tlél agux̲sakoo	CVV tlél gug̲ataa
Hortative	CVV/CV́V ag̲ax̲aa / g̲adusháa	CVV akang̲ahaa	CVV/CV́V ax̲sataa / ax̲sakóo	CVV nag̲ataa
Repetitive Imperfective	CV́V-X ax̲éix̲ / ---	CV́V-X yoo akayahéix̲k	CVV-X asteix̲ / askweix̲	CVV-X teix̲
Potential	CVV/CV́V ag̲waax̲aa / g̲aduwasháa	CVV akoong̲aahaa	CVV/CV́V oox̲sitaa / oox̲sikóo	CVV ung̲aataa
Conditional	CV́Vni ax̲éini / dushéini	CV́Vni akanahéini	CV́Vni astéini / askwéini	CV́Vni natéini

[1] Verb stems ending in *–aa* and *–oo* undergo apophony (the vowel becomes *–ei*) in the following modes: perfective habitual (*na-, ga-,* and *g̲a-* 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, g̲a	Ø	na, ga, g̲a	Ø	na, ga, g̲a
Examples	-xook~ ‘dry it’ -tseek~ ‘bbq it’	-xaash~ ‘cut it’	-wáat~ ‘raise him’ -cháak~ ‘pack it’	-sháat~ ‘hold it’	-dáal’~ ‘type it’ -xáas’~ ‘scrape it’	-.óos’~ ‘wash it’
Perfective (+)	CV́C awsixúk awlitsík	CVVC aawaxaash	CV́C awsiwát akaawachák	CV́VC awlisháat	CV́C’ akawlidál’ aawaxás’	CV́VC’ aawa.óos’
Perfective (-)	CVVC tlél awusxook tlél awultseek	CVVC tlél awuxaash	CV́VC tlél awuswáat tlél akawucháak	CV́VC tlél awulsháat	CV́VC’ tlél akawuldáal’ tlél awuxáas’	CV́VC’ tlél awu.óos’
Imperative	CV́C Saxúk! Latsík!	CVVC Naxaash!	CV́C Sawát! Kachák!	CV́VC g̲alsháat!	CV́C’ Kaladál’! Xás’!	CV́VC’ Na.óos’!
Perfective Habitual	CVVCch/ CV́Cch oosxookch ooltsíkch	CV́Cch anaxáshch	CV́VCch/ CV́Cch ooswáatch akoochákch	CV́Cch a<u>x</u>lashátch	CV́VC’ch/ CV́C’ch akooldáal’ch ooxás’ch	CV́Cch ana.ús’ch
Progressive Imperfective	CV́C yaa anasxúk ---	CV́C yaa anaxásh	CV́C kei anaswát yaa akanachák	CV́C yei analshát	CV́C’ yaa akanaldál’ yaa anaxás’	CV́C’ yaa ana.ús’
Future (+)	CV́VC agu<u>x</u>saxóok agu<u>x</u>latséek	CV́VC ak<u>g</u>waxáash	CV́VC agu<u>x</u>sawáat akak<u>g</u>wachák	CV́VC yei agu<u>x</u>lasháat	CV́VC’ akagu<u>x</u>ladáal’ ak<u>g</u>waxáas’	CV́VC’ ak<u>g</u>wa.óos’
Future (-)	CVVC tlél agu<u>x</u>saxook tlél agu<u>x</u>latseek	CVVC tlél ak<u>g</u>waxaash	CV́VC tlél agu<u>x</u>sawáat tlél akak<u>g</u>wachák	CV́VC tlél yei agu<u>x</u>lasháat	CV́VC’ tlél akagu<u>x</u>ladáal’ tlél ak<u>g</u>waxáas’	CV́VC’ tlél ak<u>g</u>wa.óos’
Hortative	CVVC/CV́C a<u>x</u>saxook a<u>x</u>latsík	CVVC an<u>g</u>axaash	CV́VC/ CV́C a<u>x</u>sawáat ak<u>g</u>achák	CV́VC a<u>g</u>aa<u>x</u>lasháat	CV́VC’/ CV́C’ aka<u>x</u>ladáal’ a<u>g</u>axás’	CV́VC’ an<u>g</u>a.óos’
Repetitive Imperfective	CV́C-X asxúk<u>x</u> altsík<u>x</u>	CV́C-X yoo ayaxáshk	CV́C-X aswát<u>x</u> akachák<u>x</u>	CV́C-X yei alshátch	CV́C’-X akladál’<u>x</u> axás’<u>x</u>	CV́C’-X yoo aya.ús’k
Potential	CVVC/ CV́C u<u>x</u>sixook oo<u>x</u>litsík	CVVC oongaaxaash	CV́VC/ CV́C u<u>x</u>siwáat ookgaachák	CV́VC agaa<u>x</u>wlisháat	CV́VC’/ CV́C’ akoo<u>x</u>lidáal’ oogaaxás’	CV́VC’ oongaa.óos’
Conditional	CV́Cni asxúkni altsíkni	CV́Cni anaxáshni	CV́Cni aswátni akachákni	CV́Cni agalshátni	CV́C’ni akladál’ni axás’ni	CV́C’ni ana.ús’ni

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).

4. Imperfective

In meaning, the Tlingit imperfective is roughly equivalent to the English present tense. The imperfective can refer to both an ongoing, continuous situation as in 's/he is doing it' and a general, valid situation as in 's/he does it'. For example, *al'ei<u>x</u>* can mean both 's/he is dancing' (presently), as well as 's/he dances' (generally). Another example is *yat'aayi héen adaná* which can give both of the following readings: 's/he is drinking coffee' (presently) and 's/he drinks coffee' (generally).

Certain classes of verbs do not have a basic imperfective form. Specifically, motion and eventive verbs lack this form. This is indicated by '[does not occur]' in the imperfective field for these verbs on the CD. Many of the verbs falling in the eventive category in Tlingit describe instantaneous events, where the resulting situation is often more relevant than the actual process of the occurrence. Therefore, in Tlingit (and often in English as well), these events are described in the past tense rather than the present tense. Here are a few examples: *<u>x</u>waa.oo* 'I bought it' (rather than 'I am buying it'); *<u>x</u>waasháat* 'I caught it' (instead of 'I am catching it'), and; *<u>x</u>waat'ei* 'I found it' (as opposed to 'I am finding it'). For eventive and motion verbs, speakers use the progressive imperfective to convey a situation in progress and the repetitive imperfective to convey a regularly occurring situation. Please see Chapters 8 and 11 for further detail on these modes.

The imperfective form can be either affirmative or negative. The affirmative imperfective form requires no prefixes or suffixes beyond the basic elements of the verb itself. All active verbs require the –I form of the classifier in the affirmative imperfective form, while stative verbs require the +I form of the classifier (Leer, 1991). Please see Section 2.10 on verb types for a description of active and stative verbs. Remember that +I forms of the classifier are those which contain the vowel *i* (with the exception of *ya-* which is considered a +I form). The +I form category of classifiers includes *si-, dzi-, shi-, ji-, li-, dli-, ya-, and di*. The –I forms do not contain

the vowel *i* and include *sa-, s-, sha-, sh-, la-, l-, Ø-, and da-*. The verb stem in the imperfective is entirely unpredictable with respect to vowel tone and length. Let's look at a few examples, beginning with active verbs. Examples (71-74) below are given with hyphens between their component parts for clarity.

(71) *da-shóoch* 's/he bathes; s/he's bathing' (active verb)
(72) *at sa-.ée* 's/he cooks; s/he's cooking' (active verb)
(73) *a-s-t'eix* 's/he trolls; s/he's trolling' (active verb)
(74) *Ø-gáax* 's/he cries; s/he's crying' (active verb)

Each of these examples contains a classifier of the –I form (*da-, sa-, s-, and Ø-* respectively), and a verb stem. Note that *ast'eix* in (73) additionally has a prefix *a-* which is required by that particular verb. This is called a 'thematic' prefix (please see Section 2.8 for more information). No additional morphology (prefixes or suffixes) is required for the basic imperfective form. In (75-78) stative verbs are given in order to compare +I classifier forms with the above –I classifier forms in the active verbs.

(75) *si-.áax'w* 'it's sour, bitter, spicy' (stative verb)
(76) *ku-dzi-tee* 'it exists; he/she/it is alive' (stative verb)
(77) *li-dzée* 'it's difficult' (stative verb)
(78) *ya-sátk* 'he/she/it is fast' (stative verb)

These stative verbs are all given in the third person form, so there is no subject prefix (since the third person subject prefix is unmarked). Each verb above consists of a classifier of the +I form (*si-, dzi-, li-, and ya-* respectively) and a verb stem. Note that *kudzitee* in (76) additionally has the thematic prefix *ku-* which is required by that verb. The +I form of the classifier in the stative verbs and the –I form of the

classifier in the active verbs in the affirmative imperfective form is the main morphological characteristic distinguishing these two classes of verbs.

4.1 Negative Imperfective

Now let's look at the negative imperfective. The negative imperfective translates as both 's/he isn't doing it (presently)' and 's/he doesn't do it (generally)'. All verbs, regardless of type (active or stative) take the –I form of the classifier in the negative imperfective. As with the affirmative imperfective, the verb stems are unpredictable with respect to vowel tone and length in the negative imperfective. The negative imperfective requires both the negative particle *tlél/tléil/hél* (according to speaker preference) and the irrealis prefix *u-*. Irrealis means 'not real' and the irrealis prefix *u-* occurs with many of the negative modes in Tlingit as well as the future and potential modes. Note that the irrealis prefix only occurs with the first person singular 'I' and third person 'he/she/it' and 'they' subjects. First person plural 'we' and second person 'you', 'you (plural)' subjects do not coincide with the irrealis prefix *u-*. The irrealis prefix occurs after any thematic prefixes *(a-, ka-, tu-, ji-, etc.)* and before the subject prefix. The *u-* contracts with certain neighboring prefixes as will be seen below.

In the following two examples, we have the irrealis prefix *u-* followed by the first person subject prefix *x̲-*, a –I classifier *(da-, sa-)* and finally the stem. Note that the subject prefix *x̲a-* becomes *x̲-*. This is because Tlingit has a constraint against three syllables in a row ending in vowels (this is exclusive of the verb stem). As seen in (79), *u-x̲a-da-shooch* is disallowed by this constraint so the middle syllable *x̲a-* is reduced to *x̲-.* The same phenomenon is illustrated in (80). Please see the appendix of *Lingít X̲'éináx̲ Sá! Say it in Tlingit!* (Dauenhauer & Dauenhauer, 2002) for more information on such contractions.

(79) *tlél ux̲dashooch (u- + x̲a- + da- + -shooch)* 'I don't bathe; I'm not bathing'

(80) *tlél u<u>x</u>sa.ee (u- + <u>x</u>a- + sa- + -.ee)* 'I don't cook it; I'm not cooking it'

Example (81) illustrates the contraction of the irrealis prefix *u-* with the preceding thematic prefix *a-*, resulting in *oo-*.

(81) *tlél oo<u>x</u>ast'ei<u>x</u> (a- + u- + <u>x</u>a- + s- + -t'ei<u>x</u>)* 'I don't troll; I'm not trolling'

This contraction also takes place when a third person object prefix *a-* is next to the irrealis prefix *u-* as can be seen by comparing the next two examples. In (82a), an affirmative imperfective form, there is a third person object prefix *a-* (which refers to 'him/her/it') followed by the (-I) classifier *l-* and the verb stem *–tséek*. In (82b), a negative imperfective form, we see the contraction of the third person object prefix *a-* and the irrealis prefix *u-,* resulting in *oo-,* followed by the classifier and stem.

(82a) *altséek (a- + l- + -tséek)* 's/he is barbecuing it; s/he barbecues it'

(82b) *tlél ooltseek (a- + u- + l- + -tseek)* 's/he isn't barbecuing it; s/he doesn't barbecue it'

This irrealis prefix *u-* contracts with each of the thematic prefixes. Thematic prefixes are a basic element of many Tlingit verbs and include these familiar prefixes: *ka-, ya-, <u>k</u>u-, tu-, ji-, <u>x</u>'a-*. The most common contractions of thematic prefixes and the irrealis prefix *u-* are illustrated in Table 16 below.

Table 16. Contraction of Thematic Prefixes and the Irrealis Prefix

Contraction	Example	English gloss
ka- + *u-* = *koo-*	*akahées'*	's/he is borrowing it; s/he borrows it'
	tlél akoohées'	's/he isn't borrowing it; s/he doesn't borrow it'
ya- + *u-* = *yoo*	*a daa yas.éix*	's/he is examining it; s/he examines it'
	tlél a daa yoos.éix	's/he isn't examining it; s/he doesn't examine it'
ku- + *u-* = *koo-*	*kudzitee*	'it exists; he/she/it is alive'
	tlél koostí	'it doesn't exist; he/she/it isn't alive'
tu- + *u-* = *too-*	*tuli.aan*	's/he is kind'
	tlél tool.aan	's/he isn't kind'
ji- + *u-* = *jee-*	*ajikéi*	's/he pays him/her; s/he is paying him/her'
	tlél ajeekéi	's/he doesn't pay him/her; s/he isn't paying him/her'
x'a- + *u-* = *x'ei-*	*x'alitseen*	'it's expensive'
	tlél x'eiltseen	'it's not expensive'

Examples (83) and (84) illustrate the contraction of the first person subject prefix *xa-* and the irrealis prefix *u-* when the classifier is *Ø-*. This combination results in *xwa-*.

(83) *tlél xwagaax (u- + xa- + Ø- + -gaax)* 'I don't cry; I'm not crying'

(84) *tlél xwaxá (u- + xa- + Ø- + -xá)* 'I don't eat it; I'm not eating it'

The following three stative verbs in (85-87) illustrate the fact that while these verbs take the +I form of the classifier in the affirmative imperfective, they take the –I form in the negative imperfective.

(85) *tlél us.áax'w (u- + s- + -.áax'w)* 'it's not sour, bitter, spicy'

(86) *tlél uldzée (u- + l- + -dzée)* 'it's not difficult'

(87) *tlél usátk (u- + Ø- + -sátk)* 'he/she/it isn't fast'

The following four sets of examples show that first person plural 'we' and second person 'you', 'you (plural)' subjects do not occur with the irrealis prefix *u-*. So how can we tell if 'we' and 'you' imperfective verb forms are positive or negative? For first person plural and second person subjects, the main feature that distinguishes the negative from the affirmative imperfective form is the negative particle *tlél/tléil*. Stative verbs have the additional clue of using the –I form of the classifier in the negative imperfective, as shown by the final example (91b) below. For some verbs, the stem is different between the affirmative and negative forms, but not for any of the following examples.

(88a) *eexá* 'you eat it; you are eating it' (act)

(88b) *tlél eexá* 'you don't eat it; you aren't eating it'

(89a) *yidaná* 'you (pl) drink it; you (pl) are drinking it' (act)

(89b) *tlél yidaná* 'you (pl) don't drink it; you (pl) aren't drinking it'

(90a) *tudaxít'kw* 'we sweep; we are sweeping' (act)

(90b) *tlél tudaxít'kw* 'we don't sweep; we aren't sweeping'

(91a) *yéi sh tutudinook* 'we feel that way' (stative)

(91b) *tlél yéi sh tutudanook* 'we don't feel that way'

The verb stem with respect to vowel length and tone in the imperfective is not predictable for variable verb roots.

5. Perfective

The Tlingit perfective is roughly equivalent in meaning to the English past tense. It indicates a situation that is complete, translating as 's/he did it'. Example perfective forms are *aawax̲áa* 's/he ate it' and *woog̲aax̲* 's/he cried'. The perfective form for some stative verbs translates as 'became that way' or 'got to be that way' (see Section 2.10 for a description of stative verbs). For example, the perfective form of the stative verb *wusi.áax'w* means 'it got sour' and the perfective form of the stative verb *k̲oowligóos'* means 'it got cloudy'.

The perfective can be either affirmative or negative. The affirmative perfective is characterized by the perfective prefix *wu-,* and the +I form of the classifier for all verb types. Remember that +I classifiers contain the vowel *i-* (except for *ya-*), and are limited to these: *si-, dzi-, shi-, ji-, li-, dli-, ya-,* and *di-.* The perfective prefix *wu-* occurs after any thematic prefixes (such as *ka-, ya-, tu-, ji-, etc.*) and before the subject prefix. The perfective prefix contracts with neighboring prefixes, making it difficult to recognize. Let's consider a few straightforward perfective forms first and then move on to a systematic discussion of common contractions with the prefix *wu-*. The examples below clearly show the perfective prefix *wu-* and the +I form of the classifiers (*si-* and *di-*). Hyphens have been inserted in the verbs below to show their component parts. The final two examples (94) and (95) have first person plural 'we' subjects and therefore have the subject prefix *tu-*.

(92) *asg̲eiwúx̲ wu-si-tee* 's/he became a seiner'
(93) *ax̲ éet wu-di-shée* 's/he helped me'
(94) *kóox wu-tu-si-.ée* 'we cooked rice'
(95) *wu-tu-di-xaash* 'we did some cutting'

The perfective prefix *wu-* systematically contracts with certain subject prefixes. I have completed charts of all prefix combinations which are included in the

appendices. Please refer to the prefix combination chart for the perfective mode in Appendix C to find all prefix combinations associated with the perfective. The major details of the perfective prefix combinations will be discussed here to help clarify the information found in the chart. We will begin with the combination of the perfective prefix *wu-* with each subject prefix, using the verb "drink it", which has the +I classifier *di-* in the affirmative perfective, shown in Table 17 below.

Table 17. Contraction of Perfective Prefix and Subject Prefixes

First person singluar: *wu-* + *xa-* = *xwa-*	
Ex: *xwadináa*	'I drank it'
Second person singular: *wu-* + *ee-* = *yi-*	
Ex: *yidináa*	'you drank it'
Third person (transitive): *a-* (3rd person object prefix) + *wu-* + *Ø-* = *aw-*	
Ex: *awdináa*	's/he drank it'
has awdináa	'they drank it'
Third person (intransitive): *wu-* + *Ø-* = *wu-*	
Ex: *at wudináa*	's/he drank (something)'
at has wudináa	'they drank (something)'
First person plural: *wu-* + *tu-* = *wutu-*	
Ex: *wutudináa*	'we drank it'
Second person plural: *wu-* + *yi-* = *yeey-*	
Ex: *yeeydináa*	'you all drank it'
Fourth person: *wu-* + *du-* = *wudu-*	
Ex: *wuduwanáa*	'someone drank it'

Note that when both the subject and object are third person "he, she, it, they", the third person object pronoun *a-* is present. The third person object pronoun *a-* is present ONLY when the subject is also third person. For third person intransitive

verbs (those with no object) there is no *a-* prefix. Note that the vowel in the first person plural subject prefix *tu-* becomes long (*too-*) when followed by a classifier that has no vowel. This is shown on the perfective prefix combination chart. The contractions in Table 16 hold true under the following conditions: 1) when the verb has no thematic prefixes (such as *ka-, tu-, ji-, a-, etc.*), and; 2) in the presence of all classifiers except *ya-*. For verbs with thematic prefixes, the vowel on the subject prefix often drops out. Please refer to the perfective prefix combination chart to see the various combinations. The perfective prefix *wu-* and the subject prefixes further contract with the classifier *ya-* rendering the forms in Table 18 below, illustrated by the verbs "eat it" and "sing it". It will be necessary to know that "eat it" is a *Ø* conjugation verb and "sing it" is a *ga* conjugation verb.

Note that for second person singular and third person intransitive, the combination of perfective prefix, subject prefix, and classifier *ya-* renders two different possible contractions: *iya-/yee-* and *uwa-/woo-* respectively. The choice of contraction depends on the conjugation prefix of the verb. *Ø* conjugation verbs such as "eat it" use the *iya-* contraction (for second person) and *uwa-* (for third person) while all other conjugations (*na, ga, ga̲*) use the *yee-* contraction (for second person) and *woo-* (for third person). The conjugation prefix of any given verb in this resource is given in the theme in parentheses following the verb type (see Chapter 2 for more information).

Table 18. Contraction of Perfective Prefix, Subject Prefixes and Classifier *ya-*

First person singluar: *wu-* + *x̲a-* + *ya-* = *x̲waa-*	
Ex: *x̲waax̲áa*	'I ate it'
x̲waashee	'I sang it'
Second person singular: *wu-* + *ee-* + *ya-* = *iya- / yee-*	
Ex: *iyax̲áa*	'you ate it'
yeeshee	'you sang it'
Third person (transitive): *a-* (3rd person object prefix) + *wu-* + *Ø-* + *ya-* = *aawa-*	
Ex: *aawax̲áa*	's/he ate it'
has aawax̲áa	'they ate it'
aawashee	's/he sang it'
has aawashee	'they sang it'
Third person (intransitive): *wu-* + *Ø-* + *ya-* = *uwa- / woo-*	
Ex: *at uwax̲áa*	's/he ate'
at wooshee	's/he sang'
First person plural: *wu-* + *tu-* + *ya-* = *wutuwa-*	
Ex: *wutuwax̲áa*	'we ate it'
wutuwashee	'we sang it'
Second person plural: *wu-* + *yi-* + *ya-* = *yeey-*	
Ex: *yeeyx̲áa*	'you all ate it'
yeeyshee	'you all sang it'
Fourth person: *wu-* + *du-* + *ya-* = *wuduwa-*	
Ex: *wuduwax̲áa*	'someone ate it'
wuduwashee	'someone sang it'

Assuming that you know the perfective verb stem shape and the conjugation prefix of the verb, you can construct perfective verb forms on your own by using the perfective prefix combination chart and the information in this chapter. For

example, given the verb *x̲waa.éex'* 'I invited him/her', which is the first person singular form and a *g̲a* conjugation verb, we should be able to come up with the second person singular form. The contraction *x̲waa-* in the above verb tells us that the classifier in this verb is *ya-* (remember that *wu-* + *x̲a-* + *ya-* = *x̲waa-*). To construct the second person singular form, we must replace the *x̲a-* with *ee-*. We know that *wu-* + *ee-* + *ya-* = *iya-/yee-*. We also know that *iya-* is the contraction used for zero conjugation verbs. Since this is a *g̲a* conjugation verb, the contraction used is *yee-*. The second person singular form then is *yee.éex'* 'you invited him/her'.

5.1 Stem Variation in the Affirmative Perfective

Verb stem variation in the perfective mode is predictable, based on the verb root type and conjugation prefix. Note that this discussion applies to verbs with variable stems only, as invariable stems will be the same in every mode. Let's start by looking at open roots. As was discussed in Chapter 3, there are two types of open roots (CVV and CVV^{h}), but since they behave the same in the perfective mode with respect to stem variation, they will be treated the same here. *Ø* conjugation verbs that have open roots will have a long, high stem in the affirmative perfective. In the following example sets, the imperative form is given first to show that these are *Ø*-conjugation verbs (the imperative mode requires the conjugation prefix), followed by the perfective. Note the long vowels with high tone in the stems in the perfective.

(96a) *Kalachá!* 'Strain it!'
(96b) *akawlicháa* 's/he strained it'

(97a) *Idaná!* 'Drink it!'
(97b) *awdináa* 's/he drank it'

(98a) *X̲á!* 'Eat it!'
(98b) *aawax̲áa* 's/he ate it'

Na, ga, and *ga* conjugation verbs with open roots will have long, low stems in the affirmative perfective mode. Following are examples, again with the imperative mode first to show the verb's conjugation prefix.

(99a) *Kanas.á!* 'Grow it!'
(99b) *akawsi.aa* 's/he grew it'

(100a) *Gashí!* 'Sing it!'
(100b) *aawashee* 's/he sang it'

(101a) *Áx gatí!* 'Install it there!'
(101b) *áx aawatee* 's/he installed it there'

Now let's look at closed roots. Remember from Chapter 3 that there are three types of closed roots: CVVC, CV́VC, and CV́VC'. *Ø-* conjugation verbs for ALL closed roots will have short high stems in the affirmative perfective. Following is an example of each closed root type. The verb theme is given first in order to distinguish the root types, then the imperative, followed by the perfective.

(102a) *x'áan-t~ S-Ø-nook~* 'for S to be angry, mad'
(102b) *X'áant núk!* 'Get angry!'
(102c) *x'áant uwanúk* 's/he's angry; s/he got angry'

(103a) *kux tu-S-d-sháat~* 'for S to change one's mind'
(103b) *Kux teedashát!* 'Change your mind!'
(103c) *kux tuwdishát* 's/he changed his/her mind'

(104a) *O-ka-S- Ø-xéel'~* 'for S to bother, trouble O'
(104b) *Kaxíl'!* 'Bother him/her!'
(104c) *akaawaxíl'* 's/he bothered him/her'

Na, ga, and *ga* conjugation verbs with CVVC roots have long low stems in the affirmative perfective, while the other closed root types (CV́VC and CV́VC') will have long high stems. Remember that the latter two types never have long low stems, as they have only two stem variants: long high and short high. Following is an example of each closed root type in the perfective.

(105a) *O-S-l-k'oots~* 'for S to break O (rope-like object)
(105b) *Nalk'oots!* 'Break it!'
(105c) *awlik'oots* 's/he broke it'

(106a) *O-S- Ø-sháat~* 'for S to catch O'
(106b) *Gasháat!* 'Catch it!'
(106c) *aawasháat* 's/he caught it'

(107a) *O-S-l-l'éex'~* 'for S to break O (long object)'
(107b) *Nall'éex'!* 'Break it!'
(107c) *awlil'éex'* 's/he broke it'

Table 19 below summarizes the stem variation patterns in the affirmative perfective for all five root types, with examples for each.

Table 19. Stem Variation in the Affirmative Perfective

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́V aawaxáa 's/he ate it' O-S-Ø-xaa~ (Ø act) 'for S to eat O'	CVV akaawahaa 's/he planted it' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
CVV^{h}	CV́V awsitáa 's/he steamed it' O-S-s-taa^{h}~ (Ø act) 'for S to boil, steam O'	CVV wootaa 's/he slept' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
CVVC	CV́C awsixúk 's/he dried it' O-S-s-xook~ (Ø act) 'for S to dry O'	CVVC aawaxaash 's/he cut it' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
CV́VC	CV́C awsiwát 's/he raised it' O-S-s-wáat~ (Ø act) 'for S to raise O'	CV́VC awlisháat 's/he held it' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
CV́VC'	CV́C' awsi.át' 's/he chilled it' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́VC' aawa.óos' 's/he washed it' O-S-Ø-.óos'~ (na act) 'for S to wash O'

5.2 Negative Perfective

Now let's move on to the negative perfective. Like the affirmative perfective, the negative perfective requires the perfective prefix *wu-*. It does NOT however, require the irrealis prefix *u-* found in the negative imperfective. The perfective prefix *wu-* and the irrealis prefix *u-* do not co-occur. While the affirmative perfective uses the +I form of the classifier, the negative perfective uses the –I form of the classifier. Table 20 below (reproduced from Section 2.3) represents the classifiers organized into four groups of four, the +I forms in the left column of each group and the –I forms on the right. In order to determine the classifier used in the negative perfective for a given verb, find the form used in the affirmative perfective first and then locate the classifier to its direct right in the table. For example, in this

affirmative perfective form *xwasikóo* 'I know it; I knew it', the (+I) classifier is *si-*. To locate the classifier for the negative perfective, look at the form to the right of *si-* in the table in the –I column and you will find *sa-*. The negative perfective form of this verb is *tlél xwasakú* 'I don't know it; I didn't know it'. Another example is the affirmative perfective form *át axwdligén* 'I looked at it', which has the *dli-* classifier. (Also note that the 'no 3 open syllables in a row' constraint causes the vowel to drop from the subject prefix *xa-,* resulting in *axw-*). The breakdown of this verb is as follows: *a- + wu- + xa- + dli- + -gein*. This combination of thematic prefix plus the perfective prefix plus the subject prefix can be found in the prefix combination chart in Appendix C. Looking at Table 20 below, we know that the negative perfective form will have the corresponding –I classifier *l-*. The negative perfective form of this verb is *tlél át axwalgein* 'I didn't look at it'.

Table 20. Classifiers

	+I	-I		+I	-I		+I	-I		+I	-I
-D	***si-***	***sa-***		***shi-***	***sha-***		***li-***	***la-***		***ya-***	***Ø-***
+D	***dzi-***	***s-***		***ji-***	***sh-***		***dli-***	***l-***		***di-***	***da-***

Using the verbs in Tables 17 and 18 from above in the affirmative description, Tables 21-23 below give the affirmative and negative forms side by side. The only changes we will see between the affirmative and negative forms will be the classifier (from +I in the affirmative to –I in the negative) and the verb stem for some verbs. The verb stem will be discussed in detail below.

Table 21. Drink it (*Ø* conjugation)

Subject	Affirmative Perfective (+I clf = *di-*)	Negative Perfective (-I clf = *da-*)	Translation of Negative Perfective
1.sg.	*xwadináa*	*tlél xwadaná*	'I didn't drink it'
2.sg.	*yidináa*	*tlél yidaná*	'you didn't drink it'
3-3. (trans.)	*awdináa*	*tlél awdaná*	's/he didn't drink it'
3. (intrans.)	*at wudináa*	*tlél at wudaná*	's/he didn't drink'
1.pl.	*wutudináa*	*tlél wutudaná*	'we didn't drink it'
2.pl.	*yeeydináa*	*tlél yeeydaná*	'you all didn't drink it'
4.	*wuduwanáa*	*tlél wuduná*	'nobody drank it'

Table 22. Eat it (*Ø* conjugation)

Subject	Affirmative Perfective (+I clf = *ya-*)	Negative Perfective (-I clf = *Ø-*)	Translation of Negative Perfective
1.sg.	*xwaaxáa*	*tlél xwaxá*	'I didn't eat it'
2.sg.	*iyaxáa*	*tlél yixá*	'you didn't eat it'
3-3. (trans.)	*aawaxáa*	*tlél awuxá*	's/he didn't eat it'
3. (intrans.)	*at uwaxáa*	*tlél at wuxá*	's/he didn't eat'
1.pl.	*wutuwaxáa*	*tlél wutooxá*	'we didn't eat it'
2.pl.	*yeeyxáa*	*tlél yeeyxá*	'you all didn't eat it'
4.	*wuduwaxáa*	*tlél wuduxá*	'nobody ate it'

Table 23. Sing it (*ga* conjugation)

Subject	Affirmative Perfective (+I clf = *ya-*)	Negative Perfective (-I clf = *Ø-*)	Translation of Negative Perfective
1.sg.	*<u>x</u>waashee*	*tlél <u>x</u>washee*	'I didn't sing it'
2.sg.	*yeeshee*	*tlél yishee*	'you didn't sing it'
3-3. (trans.)	*aawashee*	*tlél awushee*	's/he didn't sing it'
3. (intrans.)	*at wooshee*	*tlél at wushee*	's/he didn't sing'
1.pl.	*wutuwashee*	*tlél wutooshee*	'we didn't sing it'
2.pl.	*yeeyshee*	*tlél yeeyshee*	'you all didn't sing it'
4.	*wuduwashee*	*tlél wudushee*	'nobody sang it'

One phenomenon not fully revealed in the tables above requires explanation. The topic is transitive verbs (that is, verbs with both a subject and an object) in the negative perfective that have third person subject and third person object. Under these conditions, the object prefix *a-*, the perfective prefix *wu-*, and the (–I) classifier render different contractions, depending on the classifier. Remember that the –I classifier set consists of: *sa-, s-, sha-, sh-, la-, l-, Ø-,* and *da-*. If the classifier is *Ø-*, the combinaion is simply *awu-*, as seen in the above tables for "eat it" and "sing it" in the row marked "3-3. (trans.)". Another example is given in (108), using the verb "cut it".

(108) *tlél awuxaash (a- + wu- + Ø- + -xaash)* 's/he didn't cut it'

If the classifier is *da-*, the contraction is *awda-*, as can be seen in the table above for "drink it". Another example is the verb "put them on (pants, shoes)", given in (109).

(109) *tlél <u>x</u>'oos<u>x</u> awdayee<u>k</u> (a- + wu- + da- + -yee<u>k</u>)* 's/he didn't put them on'

If the classifier is *sa-, s-, sha-, sh-, la-,* or *l-*, the contraction is *awu-* plus the consonant portion of the classifier only (*s-, sh-, or l-*), producing *awus-, awush-, and awul-* respectively. Note that the vowel *a-* drops out of the classifier in these contractions. Following are examples, giving both first person subject and third person subject for comparison. Note that for first person subject "I", the vowel does not drop out of the classifier.

(110a) *tlél <u>x</u>wasa.í (<u>x</u>a- + wu- + sa- + -.í)*	'I didn't cook it'
(110b) *tlél awus.í (a- + wu- + sa- + -.í)*	's/he didn't cook it'
(111a) *tlél <u>x</u>washak'aan (<u>x</u>a- + wu- + sha- + -k'aan)*	'I didn't hate him/her/it'
(111b) *tlél awushk'aan (a- + wu- + sha- + -k'aan)*	's/he didn't hate him/her/it'
(112a) *tlél <u>x</u>walasháat (<u>x</u>a- + wu- + la- + -sháat)*	'I didn't hold it'
(112b) *tlél awulsháat (a- + wu- + la- + -sháat)*	's/he didn't hold it'

5.2.1 Stem Variation in the Negative Perfective

Stem variation in the negative perfective is as follows. As is the case with the affirmative perfective, the two types of open roots behave the same and will be considered together here. *Ø* conjugation verbs with open roots have short high stems in the negative perfective. *Na, ga*, and *<u>g</u>a* conjugation verbs with open roots have long low stems in the negative perfective. Compare the examples below, where (113) and (114) are *Ø* conjugation verbs and (115), (116), and (117) are *na, ga*, and *<u>g</u>a* conjugation respectively. Imperative forms are included for evidence of the conjugation prefix.

(113a) *Idaná!* ‘Drink it!’
(113b) *tlél awdaná* ‘s/he didn’t drink it’

(114a) *X̲á!* ‘Eat it!’
(114b) *tlél awux̲á* ‘s/he didn’t eat it’

(115a) *Kanas.á!* ‘Grow it!’
(115b) *tlél akawus.aa* ‘s/he didn’t grow it’

(116a) *Gashí!* ‘Sing it!’
(116b) *tlél awushee* ‘s/he didn’t sing it’

(117a) *Áx̲ g̲atí!* ‘Install it there!’
(117b) *tlél áx̲ awutee* ‘s/he didn’t install it there’

Closed roots in the negative perfective are thus: regardless of conjugation prefix, CVVC roots have long low stems and both CV́VC and CV́VC’ roots have long high stems. Examples (118a-b) below illustrate a *Ø* conjugation CVVC verb while (119a-b) illustrate a *na* conjugation CVVC verb. Both have long low stems in the negative perfective.

(118a) *X’áant núk!* ‘Get angry!’
(118b) *tlél x’áant wunook* ‘s/he’s not angry; s/he didn’t get angry’

(119a) *Nalk’oots!* ‘Break it!’
(119b) *tlél awulk’oots* ‘s/he didn’t break it’

All CV́VC roots have long high stems in the negative perfective. (120a-b) below exemplify a *Ø* conjugation CV́VC verb and (121a-b) show a *ga* conjugation CV́VC verb. Both have long high stems in (b) of each set.

(120a) *Kux teedasháat!* 'Change your mind!'
(120b) *tlél kux tuwdasháat* 's/he didn't change his/her mind'

(121a) *Gasháat!* 'Catch it!'
(121b) *tlél awusháat* 's/he didn't catch it'

Similarly, all CV́VC' roots have long high stems in the negative perfective. The following examples are CV́VC' verbs, (122a-b) being *Ø* conjugation and (123a-b) *na* conjugation.

(122a) *Kaxíl'!* 'Bother him/her!'
(122b) *tlél akawuxéel'* 's/he didn't bother him/her'

(123a) *Nall'éex'!* 'Break it!'
(123b) *tlél awull'eex'* 's/he didn't break it'

Table 24 below summarizes stem variation in the negative perfective for each of the five root types.

Table 24. Stem Variation in the Negative Perfective

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́ tlél awuxá 's/he didn't eat it' O-S-Ø-xaa~ (Ø act) 'for S to eat O'	CVV tlél akawuhaa 's/he didn't plant it' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
CVV^{h}	CV́ tlél awustá 's/he didn't steam it' O-S-s-taa^{h}~ (Ø act) 'for S to boil, steam O'	CVV tlél wutaa 's/he didn't sleep' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
CVVC	CVVC tlél awusxook 's/he didn't dry it' O-S-s-xook~ (Ø act) 'for S to dry O'	CVVC tlél awuxaash 's/he didn't cut it' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
CV́VC	CV́VC tlél awuswáat 's/he didn't raise him' O-S-s-wáat~ (Ø act) 'for S to raise O'	CV́VC tlél awulsháat 's/he didn't hold it' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
CV́VC'	CV́VC' tlél awus.áat' 's/he didn't chill it' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́VC' tlél awu.óos' 's/he didn't wash it' O-S-Ø-.óos'~ (na act) 'for S to wash O'

5.3 Verbs that Lack the Perfective

Some verbs, especially stative verbs, lack a perfective form. Three examples (given in the imperfective) are *tuli.aan* 's/he is kind', *yéi tuwatee* 's/he feels like doing that', and *yawóol* 'it has holes in it'. To give these verbs a past tense meaning, the decessive form is used. The decessive gives the specific meaning 'used to, but not anymore'. These are the decessive forms of the verbs just given: *tula.aanín* 's/he used to be kind (but isn't anymore)'; *yéi tootéeyin* 's/he felt like doing that (but changed his/her mind)'; and *wóolin* 'it had holes in it (but has been repaired)'.

There are additionally a few active verbs that lack perfective forms. Three common examples are *yéi adaanéi* 's/he is working on it, doing it; s/he works on it, does it', *yéi adaayaǩá* 's/he is telling him/her that; s/he tells him/her that', and *ayatéen* 's/he can see it'. These active verbs, which primarily only occur in the imperfective, have 'partner' eventive verbs which lack imperfective forms but have perfective forms. The 'partner' eventive verbs have the same stem as the corresponding active verbs, but have different classifiers. To give a past tense meaning to the active verbs just given, these partner eventive verbs are used: *yéi awsinei* 's/he fixed it; s/he did it', *yóo ayawsiǩaa* 's/he told him/her', and *awsiteen* 's/he saw it'.

6. Imperative

The imperative is the command form of the verb, and translates into English as 'Do it!' The imperative occurs with second person singular and second person plural subjects only. Example imperative forms are: *X̲á!* 'Eat it!', and *Yeex̲á!* 'You all eat it!' Some verbs do not have imperative forms, due to their semantics. An example is *k̲ut aawataan* 's/he misplaced it'. Because under normal circumstances, you wouldn't command someone to misplace something, fluent Tlingit speakers reject imperative forms for this verb. In such cases, "[does not occur]" is indicated in the imperative field in the paradigms on the CD.

There are four things to discuss with respect to the structure of the imperative form: 1) the conjugation prefix; 2) the classifier; 3) the presence or absence of the second person singular subject prefix, and; 4) the verb stem.

Remember that all verbs use one of the four conjugation prefixes (*na-, ga-, g̲a-,* or *Ø-* (unmarked)). The imperative is one of the few forms that requires the conjugation prefix. The conjugation prefix occurs after any thematic prefixes (*x̲'a-, ka-, ya-, tu-,* and *ji-* are examples of thematic prefixes), and before the subject prefix. The imperative form always contains the –I form of the classifier (*Ø-, da-, sa-, s-, sha-, sh-, la-, or l-*). The classifier always occurs directly before the stem. Examples (124a-b) and (125a-b) below have the *Ø-* classifier, which is represented in the underlying forms in parentheses, but does not show up in the spoken form. Examples (124a-b) depict a *na* conjugation verb while (125a-b) show a *ga* conjugation verb. In (124b), note the position of the conjugation prefix *na-* after the thematic prefix *x̲'a-* and before the second person plural subject prefix *yi-*. Note also that the first example in each pair does not have an overt second person singular subject prefix, but that it is understood by virtue of the command being given directly to the listener (shown in the English translation by putting 'you' in parentheses). The conditions for an overt second person singular subject prefix will be discussed shortly. The second person plural subject prefix is always present.

(124a) *X'anawóos'! (x'a- + na- + Ø- + -wóos')* '(You) ask him/her!'
(124b) *X'anaywóos'! (x'a- + na- + yi- + Ø- + -wóos')* 'You all ask him/her!'

(125a) *Gasháat! (ga- + Ø- + -sháat)* '(You) catch it!'
(125b) *Gaysháat! (ga- + yi- + Ø- + -sháat)* 'You all catch it!'

Notice in (124b) and (125b) above the contraction that takes place with the conjugation prefixes *na-* and *ga-* and the second person plural subject prefix *yi-*, producing *nay-* and *gay-* respectively. This contraction is consistent throughout the language where any of the conjugation prefixes (*na-, ga-,* or *ga-*) occur next to the second person plural subject prefix *yi-*. It should be noted here that there is additionally another dialect variant for this contraction, used by two language consultants who are sisters. For these speakers, *na-* plus *yi-* becomes *neey-*, *ga-* plus *yi-* becomes *geey-,* and *ga-* plus *yi-* becomes *geey-*. At this time, it is unclear how widespread this variant is utilized, and whether it is regional or personal.

The verbs in the following examples (126a-b) and (127a-b) both contain the -I classifier *da-*. The first is a *ga* conjugation verb and the second a *Ø* conjugation verb. Note that both contain the second person singular subject prefix *ee-*, which becomes short (*i-*) when followed by a classifier containing a vowel. The presence of the second person singular subject prefix *ee-/i-* is contingent on the presence of one of the following classifiers: *da-, s-, sh-,* or *l-*. What these classifiers have in common is that they are of the –I form (lacking the vowel *i-*) and also have what is called the 'D component'. This label refers to an organization of the classifiers into groups which pattern together in the grammar, some of which contain the sound *d-*. Please refer to the discussion on classifiers to review this topic. The relevance of this to the imperative form is that the second person singular subject prefix is present in the imperative form for verbs which have –I classifiers with the D component. Again, these are: *da-, s-, sh-,* or *l-*.

In Example (126a), we see the contraction of the conjugation prefix *ga-*, the second person singular subject prefix *ee-* and the classifier *da-*, resulting in the loss of the conjugation prefix vowel (*a-*) and the shortening of the subject prefix to *i-*, producing *gida-*. The shortening of the subject prefix only takes place when follwed by a classifier with a vowel (*da-*).

(126a) *gidaxéet'! (ga- + ee- + da- + -xéet')* 'Sweep!'
(126b) *gaydaxéet'! (ga- + yi- + da- + -xéet')* 'You all sweep!'

(127a) *Idaná! (ee- + da- + -ná)* 'Drink it!'
(127b) *Yidaná! (yi- + da- + -ná)* 'You all drink it!'

The following example (128), a *na* conjugation verb, shows that the subject prefix remains long (*ee-*) when followed by a classifier that doesn't have a vowel (*s-*, *sh-*, or *l-*).

(128) *Aneest'eix! (a- + na- + ee- + s- + -t'eix)* 'Troll!'

As is discussed in Section 2.2, some Tlingit verbs require an object pronoun rather than a subject pronoun. These verbs are called objective verbs and use the object pronouns. One familiar example is *xat yak'éi* 'I am good', where the object pronoun *xat* 'me' is used rather than the subject prefix *xa-* 'I'. The second person singular object pronoun *i-* is a prefix and is written as part of the verb, while the second person plural object pronoun is *yee*, a word written separately from the verb. For example, *iyak'éi* 'you are good' and *yee yak'éi* 'you all are good'. Objective verbs always have the second person singular and second person plural object pronouns present in the imperative, regardless of the classifier. Note that the second person singular object prefix *i-* occurs before all other prefixes, as can be seen in the examples below.

(129a) *Igak'éi! (i- + ga- + -k'éi)* 'Be good!'
(129b) *Yee gak'éi! (ga- + -k'éi)* 'You all be good!'

(130a) *Yéi inatí! (i- + na- + -tí)* 'Be that way!'
(130b) *Yéi yee natí! (na- + -tí)* 'You all be that way!'

(131a) *A kát isax'ákw! (i- + sa- + -x'ákw)* 'Forget it!'
(131b) *A kát yee sax'ákw! (sa- + -x'ákw)* 'You all forget it!'

(132a) *Itukla.aan! (i- + tu- + ga- + la- + -.aan)* 'Be kind!'
(132b) *Yee tukla.aan! (tu- + ga- + la- + -.aan)* 'You all be kind!'

6.1 Stem Variation in the Imperative

For the most part, the verb stem in the imperative mode is predictable with respect to vowel length and tone. Open roots, regardless of conjugation prefix, will have short high stems in the imperative form. Examples (133) and (134) are CVV roots and are Ø and na conjugation respectively. Examples (135) and (136) are CVV^{h} roots and are Ø and ga conjugation respectively. All four examples have short high stems in the imperative.

(133) *Kalachá!* 'Strain it!'
(134) *Kanas.á!* 'Grow it!'
(135) *Satá!* 'Steam it!'
(136) *Aax gatí!* 'Pick it up off of it!'

There is a small class of open roots that are *Ø* conjugation that unexpectedly have long high stems in the imperative. These same verbs also have long high stems in the hortative and potential modes, where long low stems would be expected. This will be discussed in the chapters pertaining to these modes as well. There is no way

to predict which verbs have these unexpected stems, so they must be learned individually. These are notated in the verb theme in parentheses, following the verb's conjugation prefix and verb type as: *CV́V Imp/Hort/Pot*. For example, the theme for the first example given below is: *O-ya-S-s-haa~ (Ø act; CV́V Imp/Hort/Pot)*. This alerts the reader to the fact that this verb has the unexpected stem form in the imperative, hortative, and potential forms. Note that Leer (1991) and Crippen (2013) use the symbol *ÿ* to notate this phenomenon in the theme. The *ÿ* represents an abstract suffix that correlates with the stem form. Because my verb database is intended as a pedagogical resource, I use the more transparent *CV́V* here instead. The following list of examples includes the known verb themes that fall into this category, based on the present research and these references: Leer, 1991:269 fn. 9 and Crippen, 2013:39[2].

(137) *áx' kaháa* 'be there'
(138) *du toowú lat'áa* 'comfort him/her'
(139) *yasaháa* 'gather it'
(140) *shukajáa* 'instruct him/her'
(141) *sakóo* 'know it'
(142) *idusháa* 'get married'
(143) *sháa* 'marry him/her'
(144) *a<u>x</u>áa* 'paddle'
(145) *aa<u>g</u>áa awóo* 'send for it'
(146) *aadé kunanáa* 'send her there'
(147) *lal'áa* 'suck it'
(148) *sanáa* 'sun-dry it'
(149) *idawóo* 'take lunch'
(150) *x'áa* 'twist it (flexible part of a tree) to limber it'

[2] Leer (1991) and Crippen (2013) include in this list the theme *O-ka-a-S-Ø-haa~* 'for S to dig O', but speakers consulted for this project have the expected imperative form *kahá* 'dig it'.

(151) *idax'óo* 'wear it (blanket)'
(152) *idaláa* 'yell'

For the closed roots, the situation is a little more complicated, and varies depending on root type and conjugation prefix. Barring a few exceptions that will be discussed next, closed roots that are *Ø* conjugation have short high stems in the imperative. This applies to all three closed root types, and an example of each is given below, where (153) is a CVVC root, (154) a CV́VC root, and (155) a CV́VC' root.

(153) *Neil sa.ín!* 'Bring it inside!'
(154) *Kux teedasháat!* 'Change your mind!'
(155) *Kaxíl'!* 'Bother him/her!'

There are a handful of CVVC *Ø* conjugation verbs that have long low stems in the imperative. What these have in common is that they are all motion verbs, and all have preverbs (a directional word preceding the verb). The known examples are: *kei sataan* 'pick it up'; *gunéi koox* 'get going'; *aax kei yeesh* 'pull it out of there'; *kei jilatsaak* 'raise your hand', and; *kei sageet* 'wake him/her up'. More research is needed to explore the factors that affect membership to this group. Because this is such a small group, and due to space constraints, these are not indicated on Table 15 in Chapter 3, but are indicated in Table 25 below.

Closed roots that are *na, ga*, or *ga* conjugation fall into two groups regarding the imperative stem. CVVC roots have long low imperative stems, as exemplified by (156) and (157) below. CV́VC and CV́VC' roots have long high imperative stems, as exemplified by (158) and (159) respectively. Remember that the latter two root types never have long low stems.

(156) *Nalk'oots!* 'Break it!'

(157) *Gataan!* ‘Carry it!’

(158) *Gasháat!* ‘Catch it!’

(159) *Nall’éex’!* ‘Break it!’

Table 25 summarizes the discussion of verb stem variation in the imperative. Where more than one form is given in a cell, the second option given is the exception to the general pattern, as discussed above.

Table 25. Stem Variation in the Imperative

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́ X̲á! 'Eat it!' O-S-Ø-x̲aa~ (Ø act) 'for S to eat O'	CV́ Akanahá! 'Plant it!' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
	CV́V Idusháa! 'Get married!' O-du-Ø-shaa~ (Ø event; CV́V Imp/Hort/Pot) 'for O to get married'	
CVV^{h}	CV́ Satá! 'Steam it!' O-S-s-taa^{h}~ (Ø act) 'for S to boil, steam O'	CV́ Natá! 'Sleep!' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
	CV́V Sakóo! 'Know it!' O-S-s-koo^{h}~ (Ø event; CV́V Imp/Hort/Pot) 'for S to know O'	
CVVC	CV́C Saxúk! 'Dry it!' O-S-s-xook~ (Ø act) 'for S to dry O'	CVVC Naxaash! 'Cut it!' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
	CVVC Kei sataan! 'Pick it up!' kei O-S-s-taan~ (Ø motion) 'for S to bring out, unearth O'	
CV́VC	CV́C Sawát! 'Raise him/her!' O-S-s-wáat~ (Ø act) 'for S to raise O'	CV́VC galsháat! 'Hold it!' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
CV́VC'	CV́C' Sa.át'! 'Chill it!' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́VC' Na.óos'! 'Wash it!' O-S-Ø-.óos'~ (na act) 'for S to wash O'

7. Perfective Habitual

The perfective habitual form has different shades of meaning, depending on the context. One is to indicate a situation that happens frequently, and especially predictably in conjunction with another situation. An example is: *Tlákw <u>x</u>at wusteení, <u>x</u>at <u>x</u>'anawóos'ch*. 'He asks me every time he sees me.' The perfective habitual form in this sentence is *<u>x</u>at <u>x</u>'anawóos'ch* 's/he asks me (every time)'. The formula for this particular shade of meaning is every time A happens ('he sees me'), then B happens ('he asks me'). Often in conversation or oral narrative, the condition A is left out entirely, and all that is uttered is part B (he asks me (every time)). Because the presence of a particular condition A is optional, the perfective habitual form is translated into English with (every time) following in parentheses. This aims to capture that the verb given in this form is habitual, and sometimes dependent on another condition.

The perfective habitual form also appears frequently in oral narrative where it gives a slightly different connotation, indicating a habitual situation in the past. In this case, the translation 's/he'd do it (habitually, in the past)' is appropriate. The following example comes from a video recording of sisters Lena Farkas and Nellie Lord of Yakutat talking about their childhood: *A<u>x</u> tláach a<u>x</u> éesh du éet udashéeych wé tsaa.* 'My mother would help my father with the seal' (Farkas & Lord 2010:06:47). The perfective habitual form illustrated in the sentence is *du éet udashéeych* 'she would help him', indicating a situation in the past which occurred habitually. In this particular narrative, the speaker is describing a typical summer in her childhood, and the activities that her family would regularly engage in. This is the second shade of meaning of this form.

Throughout the paradigms on the CD, this form is translated into English using the first shade of meaning described above 's/he does it (every time)'. This saves giving two different translations for every perfective habitual form in the resource, but it is

important to remember that another very common connotation is the second shade of meaning described above, 's/he would do it (habitually, in the past)'.

There are five things to discuss with respect to the structure of the perfective habitual form: 1) the conjugation prefix, 2) the classifier, 3) the –*ch* suffix, 4) the irrealis prefix *u-*, and 5) the verb stem.

Remember that all verbs use one of the four conjugation prefixes (*na-, ga-, g̲a-,* or *Ø-* (unmarked)). The perfective habitual is one of the modes that requires the conjugation prefix. The conjugation prefix occurs after any thematic prefix (*x̲'a-, ka-, ya-, tu-, jí-,* etc.), and before the subject prefix. In addition to the conjugation prefix, the perfective habitual requires a suffix: *-ch*. A familiar phrase is given in Example (160).

(160) *Yéi nateech Yéil.* 'That's the way Raven is (every time)'.

Yéi nateech is the perfective habitual form of the verb *yéi yatee* 'he/she/it is that way'. By looking at (160), we see that this verb uses the *na-* conjugation prefix. The perfective habitual suffix –*ch* is also illustrated here.

The perfective habitual form always contains the –I form of the classifier (*Ø-, da-, sa-, s-, sha-, sh-, la-, or l-*). Remember that the classifier always occurs directly before the stem. In (160) above, the classifier is *Ø-,* which is the –I form of the *ya-/ Ø-* pair. In Example (161) below, note the conjugation prefix and the classifier:

(161) *gala.éil'ch* 'it gets salty (every time)'

The imperfective form of this verb is *li.éil'* 'it's salty'. From the perfective habitual form in (161), we can see that this verb uses the *ga-* conjugation prefix. The

classifier, which is *li-* in the imperfective form, changes to the –I form *la-* in the perfective habitual, as expected. Again, the *–ch* suffix is required.

A variety of contractions take place when combining the conjugation prefix with other verbal prefixes. Example perfective habitual forms using each of the conjugation prefixes are given below in Table 26. Things to take note of are the position of the conjugation prefix, the –I form of the classifier, and the *–ch* suffix. For each verb form, the underlying form is given below it in parentheses. This shows exactly what prefixes each verb form is made up of, and illustrates some of the contractions that take place. For complete charts of all prefix combinations, please see the appendices.

Another important feature of the perfective habitual form applies only to verbs using the *Ø-* conjugation prefix. All *Ø* conjugation verbs require the irrealis prefix *u-* in the perfective habitual form. The *u-* may change form depending on the neighboring prefixes. When following an open syllable ending in *a-*, the *a-* and *u-* combine to make *oo-*. This is illustrated in Table 26. You may also notice that open verb stems undergo changes in the perfective habitual (*aa* becomes *ei* for some and *y* is added to the stem for others). These changes will be discussed in Section 7.2.

Table 26. Contraction of Conjugation Prefixes and other Verbal Prefixes

***na* conjugation verbs:**	
1. *naxatóowch*	'I read it (every time)'
(na- + xa- + Ø- + tóow- + -ch)	
2. *kanxaníkch*	'I tell about it (every time)'
(ka- + na- + xa- + Ø- + ník- + -ch)	
3. *akanas.éich*	's/he grows it (every time)'
(a- + ka- + na- + sa- + .áa- + -ch)	
***ga* conjugation verbs:**	
4. *gaxahées'ch*	'I borrow it (every time)'
(ga- + xa- + Ø- + hées'- + -ch)	
5. *du toowú ksagwéich*	's/he gets happy (every time)'
(du toowu ga- + sa- + góo- + -ch)	
6. *kut gagútch*	's/he gets lost (every time)'
(kut ga- + Ø- + gút- + -ch)	
***ga* conjugation verbs:**	
7. *kasgáaxch*	'I ask for it (every time)'
(ga- + xa- + s- + gáax- + -ch)	
8. *axlashátch*	's/he holds it (every time)'
(a- + ga- + la- + shát- + -ch)	
9. *áx agateech*	's/he installs it there (every time)'
(áx a- + ga- + Ø- + tee- + -ch)	
***Ø* conjugation verbs:**	
10. *uxlayéxch*	'I make it (every time)'
(u- + xa- + la- + yéx- + -ch)	
11. *akooch'ák'wch*	's/he carves it (every time)'
(a- + ka- + u- + Ø- + ch'ák'w- + -ch)	
12. *oos.éeych*	's/he cooks it (every time)'
(a- + u- + sa- + .ée- + -ch)	

7.1 Negative Perfective Habitual

Now let's look at the negative perfective habitual. The negative perfective habitual translates as 's/he hasn't done it yet'. Like its affirmative counterpart, the negative perfective habitual requires the –I form of the classifier, the verb's conjugation prefix, and the *–ch* suffix. In addition, the negative perfective habitual requires the irrealis prefix *u-* regardless of the verb's conjugation prefix. In Table 7 below, compare the affirmative and negative perfective habitual forms, noting the addition of the irrealis prefix *u-* in the negative forms. Remember that *u-* can show up as *w-*, or *oo-*, depending on the neighboring prefixes that it contracts with. The examples in Table 27 are all either *na, ga, or ga* conjugation verbs.

Table 27. Affirmative and Negative Perfective Habitual Forms for *na*, *ga*, and *ga* Conjugation Verbs

Perfect. Hab (+)	**English**	**Perfect. Hab (-)**	**English**
naxatóowch	I read it (every time)	*tlél naxwatóowch*	I haven't read it yet
kanxaníkch	I tell about it (every time)	*tlél koonxaníkch*	I haven't told about it yet
akanas.éich	s/he grows it (every time)	*tlél akoonas.éich*	s/he hasn't grown it yet
gaxahées'ch	I borrow it (every time)	*tlél gooxahées'ch*	I haven't borrowed it yet
kut gagútch	s/he gets lost (every time)	*tlél kut googútch*	s/he hasn't gotten lost yet
kasgáaxch	I ask for it (every time)	*tlél kwasgáaxch*	I haven't asked for it yet
axlashátch	s/he holds it (every time)	*tlél oogalshátch*	s/he hasn't held it yet
áx agateech	s/he installs it there (every time)	*tlél áx oogateech*	s/he hasn't installed it there yet

Now look at the examples in Table 28, which are all *Ø* conjugation verbs. Note that because the positive form already has the irrealis prefix *u-*, there is no difference between the positive and negative perfective habitual forms for these particular verbs, except for, of course, the addition of *tlél*.

Table 28. Affirmative and Negative Perfective Habitual Forms for *Ø* Conjugation Verbs

Perf. Hab (+)	**English**	**Perf. Hab (-)**	**English**
uxlayéxch	I make it (every time)	*tlél uxlayéxch*	I haven't made it yet
oos.éeych	s/he cooks it (every time)	*tlél oos.éeych*	s/he hasn't cooked it yet

7.2 Stem Variation in the Perfective Habitual

The stem form of a given verb in the perfective habitual mode is dependent on the conjugation category of the verb as well as the root type. Let's consider *Ø* conjugation verbs with open roots first. Both CVV and CVV^{h} roots have long high stems in the perfective habitual. Additionally, the stem takes a *y* before the perfective habitual suffix *–ch*. In Table 8 above, the verb 'cook it' (root *-.ee*) serves to illustrate. The perfective form of this verb is *awsi.ée* 's/he cooked it'. Note the long high vowel followed by *y* in the perfective habitual *oos.éeych* 's/he cooks it (every time)'. Additional examples follow, giving the perfective form first to compare with the perfective habitual forms. The affirmative and negative have the same stem for this subgroup. The repetitive imperfective is also included to distinguish the CVV root in (162a-d) from the CVV^{h} root in (163a-d). As will be seen in Chapter 11, the repetitive form is the only mode in which these subtypes of open roots are distinguished for *Ø* conjugation verbs, where CVV roots have long high stems and CVV^{h} roots have long low stems.

(162a) *a káa akaawakáa*	's/he embroidered it on it'
(162b) *a káa akookáaych*	's/he embroiders it on it (every time)'
(162c) *tlél a káa akookáaych*	's/he hasn't embroidered it on it yet'
(162d) *a káa akakéix*	's/he embroiders it on it (regularly)'

(163a) *kei aawatée*	's/he brought it out'
(163b) *kei ootéeych*	's/he brings it out (every time)'
(163c) *tlél kei ootéeych*	's/he hasn't brought it out yet'
(163d) *kei ateech*	's/he brings it out (regularly)'

Ø conjugation verbs with closed roots on the other hand, are not predictable in the perfective habitual mode with respect to the verb stem. While some generalizations

can be made, this group would benefit from more research**.** We will return to this topic after discussing those which do follow a predictable pattern.

Let's look at the *na*, *ga* and *g̲a* verbs, beginning with open roots. For verbs belonging to this group, the two types of open roots differ in the perfective habitual, with CVV roots having long high stems and CVV^{h} roots having long low stems. For these *na, ga,* and *g̲a* conjugation verbs, the two types of open roots are distinguishable in forms that require a suffix (such as the perfective habitual and the repetitive imperfective), elsewhere they follow the same pattern. The affirmative and negative have the same stem in the perfective habitual for all *na, ga,* and *g̲a* verbs. Examples follow, where (164a-c) is a CVV root and (165a-c) a CVV^{h} root. In each set, the theme is given in (a), the affirmative form in (b), and the negative in (c).

(164a) *S-Ø-k̲ee~ (g̲a event)*	'for (plural) S to sit, sit down'
(164b) *has g̲ak̲éech*	'they sit down (every time)'
(164c) *tlél has g̲wak̲éech*	'they haven't sat down yet'

(165a) *P-g̲áa k̲u-S-Ø-shee^{h}~ (na act)*	'for S to search for, look for P'
(165b) *aag̲áa k̲unasheech*	's/he looks for it (every time)'
(165c) *tlél aag̲áa k̲unasheech*	's/he hasn't looked for it yet'

The habitual suffix *–ch* has an effect on *na, ga,* and *g̲a* verbs that have stems ending in *–aa* or *–oo*. The vowel becomes *–ei* in these verbs. Examples (166a-b) and (167a-b) below illustrate, where (a) gives the theme and (b) gives the perfective habitual form. Note that this change in vowel sound does not take place for *Ø* conjugation verbs. Other suffixes have the same effect on stems ending in *aa-* and *–oo,* regardless of conjugation prefix. These are the repetitive suffixes and the *–n* suffix associated with the progressive imperfective and conditional modes. This will be discussed in these respective chapters as well. Leer calls this phenomenon umlaut

(1991:165-166), which is a linguistic term referring to the shift in pronunciation of a vowel from the back of the mouth toward the front of the mouth in any language. Crippen prefers the term apophony (2013:182), which refers to internal vowel alternations that convey grammatical information among related words in a language (sing, sang, sung, for example). I follow Crippen here in using the term "apophony" as it more accurately captures the phenomenon.

(166a) *sha-S-d-s-yaa~ (na event)*	'for S to anchor, lower anchor'
(166b) *shanasyéich*	's/he anchors (every time)'

(167a) *O-S-Ø-.oo^{h} (na event)*	'for S to buy O'
(167b) *ana.eich*	's/he buys it (every time)'

Leer (1991:165) notes two roots which do not undergo umlaut (*-naa* 'die' and *–yaa* 'carry in pack'). Research conducted for this project finds that for some speakers the root *–yaa* does undergo umlaut and for others it doesn't. (168a) gives the theme for the verb 'carry it on one's back' and (168b) gives the two different perfective habitual forms documented for this theme on the CD.

(168a) *O-S-Ø-yaa~ (ga event)*	'for S to carry O on back'
(168b) *agayáach / agayéich*	's/he carries it on his/her back (every time)'

Na, ga and *ga* verbs with closed stems of any type (CVVC, CV́VC, or CV́VC') have short high stems in the perfective habitual. Examples follow for each type of closed root respectively. Note that the stem is the same in the affirmative and negative forms.

(169a) *yéi sh tundanúkch*	's/he feels that way (every time)'
(169b) *tlél yéi sh toondanúkch*	's/he hasn't felt that way yet'

(170a) *agashátch* ‘s/he catches it (every time)’
(170b) *tlél agooshátch* ‘s/he hasn’t caught it yet’

(171a) *akgas’él’ch* ‘s/he tears it (every time)’
(171b) *tlél akoogas’él’ch* ‘s/he hasn’t torn it yet’

Let’s now revisit *Ø* conjugation verbs with closed roots. As stated above, the stem is not predictable in the perfective habitual for this group. Leer (1991:393) states that these verbs either take the ÿ-stem (translating as short high stems) or the ‘-stem (translating as long low stems for CVVC roots and long high stems for CV́VC and CV́VC’ roots). The choice between these two options is not predictable, but for those included in the present research, about twice as many fall into the latter category than the former. Let’s look at examples to clarify. The following set of examples are closed roots that have short high stems (Leer’s ÿ-stem) in the perfective habitual, where (172a-b) is a CVVC root, (173a-b) a CV́VC root, and (174a-b) a CV́VC’ root. For these particular verbs, the affirmative and negative have the same stem form.

(172a) *shookúxch* ‘s/he gets thirsty (every time)’
(172b) *tlél shookúxch* ‘s/he hasn’t gotten thirsty yet’

(173a) *woodagílch* ‘it gets dull (every time)’
(173b) *tlél woodagílch* ‘it hasn’t gotten dull yet’

(174a) *ooxás’ch* ‘s/he scrapes it (every time)’
(174b) *tlél ooxás’ch* ‘s/he hasn’t scraped it yet’

The next set of examples are those that take Leer’s ‘-stem in the perfective habitual, which for CVVC roots means a long low stem, and for both CV́VC and CV́VC’ roots

means a long high stem. Examples follow for each closed root type respectively. Again, for these verbs, the affirmative and negative stems are the same.

(175a) *ooshook̲ch* 's/he laughs at it (every time)'
(175b) *tlél ooshook̲ch* 's/he hasn't laughed at it yet'

(176a) *ootáawch* 's/he steals it (every time)'
(176b) *tlél ootáawch* 's/he hasn't stolen it yet'

(177a) *ool̲x'éi̲x'ch* 's/he scalds it (every time)'
(177b) *tlél ool̲x'éi̲x'ch* 's/he hasn't scalded it yet'

While the above two stem patterns account for the majority of *Ø* conjugation verbs with closed roots, the present research finds that for at least one consultant (from Douglas), there are about 20 verbs that have short stems in the affirmative and long stems in the negative. For a different consultant (from Kake) these same verbs have short stems in both the affirmative and negative. A third consultant (from Angoon), is split between the two, where about half of these verbs have short stems in the affirmative and long stems in the negative, and the other half have short stems in both. Here are two examples, indicating the village of origin of each consultant after the form given.

(178a) *oosxúkch* 's/he dries it (every time)' (Douglas, Angoon, Kake)
(178b) *tlél oosxookch* 's/he hasn't dried it yet' (Douglas)
(178c) *tlél oosxúkch* 's/he hasn't dried it yet' (Angoon, Kake)

(179a) *shoohíkch* 'it gets full (every time)' (Douglas, Angoon, Kake)
(179b) *tlél shooheekch* 'it hasn't gotten full yet' (Douglas, Angoon)
(179c) *tlél shoohíkch* 'it hasn't gotten full yet' (Kake)

In exploring this issue, I met with each of the consultants individually. I provided the perfective form of the target verb in Tlingit (i.e. *akaawachák* 'he packed it'), then asked for a translation of the English phrase 'he hasn't packed it yet'. All three consultants were quick to provide these translations, seeming very comfortable with the Tlingit perfective habituals. After obtaining the perfective habitual form in Tlingit from the consultant, I would ask whether the alternate form might be considered acceptable by some speakers (the long form if given short, or the short form if given long). In some cases, the consultants conceded that the alternate form would be acceptable for some, but equally often consultants rejected the alternate forms altogether.

It is interesting to note the home villages of each consultant where the Douglas speaker (Northern dialect) has the long stem forms in the negative, the Kake speaker (Transitional Southern dialect) has short stem forms in the negative, and the Angoon speaker (considered Northern, but shares some features with the Kake dialect) has about half short and half long. However, with such a small sample group, it is not possible to draw any conclusions regarding isoglosses at this time. This is an area that would benefit from further research in consultation with a number of speakers from each dialect area. In the paradigms included with this dissertation on a CD, I indicate alternate negative perfective habitual forms by putting them side by side on the same line, separated by "/". I do not indicate the regional dialect represented by each form however, because at this point I am not confident that they correlate exactly as such.

Table 29 summarizes stem variation in the perfective habitual, providing examples for each root type and conjugation prefix combination. While all the forms in the table are in the affirmative, remember that the negative has the same stem form except in a handful of verbs for two consultants, as just described above.

Table 29. Stem Variation in the Perfective Habitual

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́Vych ooxáaych ‘he eats it (every time)’ O-S-Ø-xaa~ (Ø act) ‘for S to eat O’	CV́Vch akanahéich ‘she plants it (every time)’ O-ka-S- Ø-haa~ (na act) ‘for S to plant O’
CVV^{h}	CV́Vych oostáaych ‘she steams it (every time)’ O-S-s-taa^{h}~ (Ø act) ‘for S to boil, steam O’	CVVch nateich ‘he sleeps (every time)’ S-Ø-taa^{h}~ (na act) ‘for (singular) S to sleep’
CVVC	CVVCch oosxookch ‘he dries it (every time)’ O-S-s-xook~ (Ø act) ‘for S to dry O’	CV́Cch anaxáshch ‘she cuts it (every time)’ O-S-Ø-xaash~ (na act) ‘for S to cut O with knife’
	CV́Cch ooltsíkch ‘she barbecues it (every time)’ O-S-l-tseek~ (Ø act; CV́C Hort/Pot) ‘for S to broil O slowly’	
CV́VC	CV́VCch ooswáatch ‘he raises it (every time)’ O-S-s-wáat~ (Ø act) ‘for S to raise O’	CV́Cch axlashátch ‘he holds it (every time)’ O-S-l-sháat~ (ga act) ‘for S to hold, retain O’
	CV́Cch akoochákch ‘she packs it (every time)’ O-ka-S-Ø-cháak~ (Ø act; CV́C Hort/Pot) ‘for S to pack O’	
CV́VC’	CV́VC’ch akooldáal’ch ‘he types it (every time)’ O-ka-S-l-dáal’~ (Ø act) ‘for S to type O’	CV́C’ch ana.ús’ch ‘she washes it (every time)’ O-S-Ø-.óos’~ (na act) ‘for S to wash O’
	CV́C’ch ooxás’ch ‘she scrapes it (every time)’ O-S-Ø-xáas’~ (Ø act; CV́C’ Hort/Pot) ‘for S to scrape O’	

8. Progressive Imperfective

The progressive imperfective form describes a present and continuous situation, translating as 's/he is (in the process of) doing it' or 'it's in progress'. An example progressive imperfective form is *yaa nagút* 's/he is walking along'. As compared to the basic imperfective form, which usually states a general truth about a situation, the progressive tends to emphasize that the situation is currently in progress. It can also mean 's/he is trying to do it', 's/he is beginning to do it', or 's/he is still doing it', depending on the verb. We will begin by looking at the structure of the progressive imperfective form and will then look at the variety of meanings this form can convey.

The progressive imperfective has four distinctive features. The first is a preverb (a required word which precedes the verb). The choice of preverb depends on the conjugation prefix *(Ø-*, *na-, ga-,* or *g̲a-)* used by the verb. The preverb options are *yaa, kei,* and *yei.* Verbs which use the *Ø-* and *na-* conjugation prefixes use the preverb *yaa* in the progressive; *ga* conjugation verbs use the preverb *kei,* and; *g̲a* conjugation verbs use the preverb *yei*. There are a few cases where *ga* conjugation verbs use the *yaa* preverb, but these generalizations hold true most of the time. Table 30 below summarizes the first feature of the progressive imperfective by giving examples of one verb from each of the conjugation prefix (CP) groups. Each verb is given in the imperative and progressive imperfective forms. The imperative form serves to show the conjugation prefix of the verb. Note which preverb each verb uses in the progressive imperfective.

Table 30. Progressive Imperfective Forms from each Conjugation Category

CP	Preverb	Imperative	Progr. Imperf
Ø-	*yaa*	*Shalahík!* 'Fill it!'	*yaa ashanalhík* 's/he's filling it'
na-	*yaa*	*Aadé nakoox!* 'Drive there!'	*aadé yaa nakúx* 's/he's driving there'
ga-	*kei*	*Galk'éi!* 'Improve it!'	*kei analk'éin* 's/he's improving it'
ga-	*yei*	*Káx gidatí!* 'Put it on!'	*káx yei ndatéen* 's/he's putting it on'

The second feature of the progressive imperfective is the presence of the *na-* conjugation prefix (regardless of the verb's regular conjugation prefix). Whether a verb belongs to the *Ø*, *na, ga,* or *ga* conjugation category, *na-* will always be present in the progressive imperfective form. The *na-* prefix occurs after any thematic prefixes and before the subject prefix. Note in the table above, the *na-* present in each of the forms in the progressive imperfective column, and where it occurs in relation to other prefixes. Due to regular contractions, the *na-* will sometimes drop its vowel, surfacing as *n-*, as in the final example in Table 17 above.

The third feature of the progressive imperfective is the classifier, which is always –I. The –I classifiers are: *sa-, s-, sha-, sh-, la-, l-, Ø-,* and *da-*. Sometimes the classifiers with vowels drop their vowels as a result of a contraction with a neighboring prefix. In the progressive imperfective, the classifier only drops its vowel under these conditions: 1) if the verb has the 3rd person object prefix *a-* 'him/her/it' OR the 4th person subject prefix *du-* 'someone'; AND 2) if the classifier is one of the following: *sa-, sha-* or *la-*. Two examples from the above table, both of which have the third person object prefix *a-* 'him/her/it' and the classifier *la-*, will serve to clarify. The

examples from Table 30 above are given in (180) and (181) with hyphens between their component parts. The vowel that drops out is given with a line through it.

(180) *yaa a-sha-na-l~~a~~-hík → yaa ashanalhík* 's/he's filling it'
(181) *kei a-na-l~~a~~-k'éin → kei analk'éin* 's/he's improving it'

We know the underlying form of the classifier in these verbs is *la-* by comparing them to the same verbs with a first person subject *x̲a-* 'I'. In the case of a first person subject, the subject prefix *x̲a-* drops a vowel in this context, while the classifier *la-* retains its vowel. Compare the following examples with the ones just given above.

(182) *yaa sha-na-x̲~~a~~-la-hík → yaa shanax̲lahík* 'I am filling it'
(183) *kei na-x̲~~a~~-la-k'éin → kei nax̲lak'éin* 'I am improving it'

The myriad contractions that take place in Tlingit could constitute a dissertation of their own. Please see the prefix combination chart for the prefix string *na-* in Appendix E for a complete list of all contractions involving the prefix *na-*, and therefore relating to the progressive imperfective form.

8.1 Stem Variation in the Progressive Imperfective

The fourth and final feature of the progressive imperfective applies to the verb stem. All closed roots have short vowels with high tone in the progressive imperfective stem. In the examples below, (a) gives the theme and (b) gives the progressive imperfective form. Example (184a-b) is CVVC *na* conjugation ; (185a-b) is CV́VC *na* conjugation, and; (186a-b) is CV́VC' *Ø* conjugation. All have short high stems in the progressive imperfective.

(184a) *ka-l-koox~ (na event)*` 'for a container etc. to drain out, go dry'
(184b) *yaa kanalkúx* 'it's draining out'

(185a) *d-l-.óok~ (Ø event; CV́C Hort/Pot)* 'for something to boil'
(185b) *yaa nal.úk* 'it's starting to boil'

(186a) *s-.áat'~ (Ø state)* 'for S to make O cold, cool'
(186b) *yaa nas.át'* 'it's getting cold'

The exception to the rule is verbs with invariable stems. Invariable stems never change, regardless of mode. Note however, there are three verb themes with invariable stems that have irregular progressive imperfective stem forms. These are illustrated in Section 15.2. The majority of verbs with invariable stems in Tlingit belong to the *ga* conjugation category (Leer, 1991). Following in (187a-189b) are a few examples of verbs with invariable stems, the theme given in (a) and both the progressive imperfective in (b).

(187a) *O-s-.áax'w (ga state)* 'for O to be bitter; for O to be spicy hot'
(187b) *kei nas.áax'w* 'it's getting bitter'

(188a) *ku-l-góos' (ga state)* 'for the sky to be cloudy'
(188b) *kei kunalgóos'* 'it's getting cloudy'

(189a) *O-Ø-néekw (ga state)* 'for O to be sick; for O to hurt, be in pain'
(189b) *kei nanéekw* 's/he is getting sick'

Verbs with open roots require what is called the *n-stem* (Leer 1991) in the progressive imperfective. The *n-stem* has a long vowel with a high tone and has the suffix –*n*. For example, let's consider two of the verbs given in Table 30 above. In the imperative, we have *Galk'éi!* 'Improve it!' and *Káx gidatí!* 'Put it on!' Both of these verbs have open roots. In the progressive imperfective form, these are *kei analk'éin* and *káx yei ndatéen*, respectively. As was discussed in Chapter 7 for the perfective

habitual, stems ending in –*aa* or -*oo* undergo apophony, changing their sound to *ei* with the addition of the –*n* suffix. (190a-193b) are a few examples, the theme given in (a), followed by the progressive imperfective in (b). (Note that the *CV́V Imp/Hort/Pot* that belongs in the theme in (190a) has been omitted to save space). Note also the rounding of the consonants in the stems of (190b) and (191b) (*kw* and *x'w* respectively). Stems that end in –*oo* preserve the rounding of the vowel on the preceding consonant if the consonant is one which has a rounded counterpart in the consonant inventory (*k/kw, x/xw, g/gw* etc.) (Leer, 1991:167). (See Table 1 for the consonant inventory).

(190a) *O-S-s-koo^{h}~ (Ø event)*	'for S to know O'
(190b) *yaa anaskwéin*	's/he is beginning to know him/her, learn it'
(191a) *O-ka-S-s-x'oo~ (Ø act)*	'for S to nail O'
(191b) *aadé yaa akanasx'wéin*	's/he is nailing it on it'
(192a) *P-t~ <u>k</u>u-Ø-haa~ (Ø motion)*	'for the time to come for P'
(192b) *du eedé yaa <u>k</u>unahéin*	'his/her time is coming'
(193a) *yan~ O-ka-l-gaa~ (Ø motion)*	's/he put up food'
(193b) *yánde yaa kanalgéin*	's/he is putting up food'

In Section 2.5 the variable postposition –*t~/-Ø~* is described in detail. The relevance of this to the present topic is that this postposition will always be –*dé(i)* in the progressive imperfective form. The vowel length in the postposition is dependent upon speaker dialect. The examples given just above illustrate this point. Note that in each of the final three pairs, a transformation takes place in the postpositional

phrase from the perfective to the progressive imperfective: *át* becomes *aadé; du éet* becomes *du eedé;* and *yan* becomes *yánde*.

Table 31 below summarizes stem variation in the progressive imperfective where all open roots have the *n-stem* and all closed roots have short high stems.

Table 31. Stem Variation in the Progressive Imperfective

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́Vn yaa anaxéin 'he is going along eating it' O-S-Ø-xaa~ (Ø act) 'for S to eat O'	CV́Vn yaa akanahéin 'she is going along planting it' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
CVV^{h}	CV́Vn yaa anaskwéin 'she is beginning to learn it' O-S-s-koo^{h}~ (Ø event; CV́V Imp/Hort/Pot) 'for S to know O'	CV́Vn yaa natéin 'he's forever sleeping' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
CVVC	CV́C yaa anasxúk 'he is drying it' O-S-s-xook~ (Ø act) 'for S to dry O'	CV́C yaa anaxásh 'she is cutting it' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
CV́VC	CV́C kei anaswát 'she is raising him' O-S-s-wáat~ (Ø act) 'for S to raise O'	CV́C yei analshát 'he is holding onto it' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
CV́VC'	CV́C' yaa anas.át' 'he is chilling it' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́C' yaa ana.ús' 'she is going along washing it' O-S-Ø-.óos'~ (na act) 'for S to wash O'

To summarize our discussion of the structural aspects of the progressive imperfective, another example verb from each conjugation prefix group is given below in Table 32. The verbs are given first in the perfective form and then in the progressive, for comparison. Note the four features we have discussed: 1) the preverb *yaa, kei,* or *yei*; 2) the presence of *na-* in all verbs, regardless of regular conjugation category; 3) the –I classifiers (*Ø-* and *da-* respectively), and; 4) the verb stem.

Table 32. Progressive Imperfective forms in each Conjugation Category

CP:	Perfective:	Progressive imperfective:
Ø-	*át has uwa.át*	*aadé yaa has na.át*
	'they walked there'	'they are walking along there'
na-	*aagáa koowashee*	*aagáa yaa kunashéen*
	's/he searched for it'	's/he is going along searching for it'
ga-	*wudihaan*	*kei ndahán*
	's/he stood up'	's/he is (in the process of) standing up'
ga-	*awdigaan*	*yei andagán*
	'it's sunny'	'it's getting sunny'

8.2 Semantics of the Progressive Imperfective

To better understand the possible range of meanings that the progressive imperfective can convey, some discussion of verb types is necessary. Remember that there are four main verb types in Tlingit: active, stative, eventive, and motion. Each verb type and its relationship to the progressive imperfective will be discussed in turn.

8.2.1 Active Verbs

One of the defining characteristics of active verbs is that they have basic imperfective forms, which provide the present tense meaning. A few examples are: *a<u>x</u>'awóos'* 's/he is asking him/her; s/he asks him/her'; *dashóoch* 's/he is bathing; s/he bathes'; *ahées'* 's/he is borrowing it; s/he borrows it'; and *at sa.ée* 's/he is cooking; s/he cooks'. Because the present tense meaning is supplied by the basic imperfective form, many active verbs, including the ones just given, do not have progressive imperfective forms. Remember that the progressive imperfective emphasizes that the situation described by the verb is 'in progress'. Pragmatically speaking, for some verbs, this emphasis is not useful or necessary, since the basic imperfective form adequately conveys the situation. In these cases, the progressive imperfective form sounds awkward and unacceptable to fluent Tlingit speakers. An equivalent in English might be to say 'she's in the process of asking him', rather than simply saying 'she's asking him' or 'he's in the process of bathing', rather than 'he's bathing'. Although using English to guess at which Tlingit active verbs will have progressive imperfective forms is a bad idea because all languages are categorized differently.

When both the imperfective and progressive imperfective forms are acceptable for a given active verb, there sometimes seems to be overlap in meaning between the two. Some examples follow, with the imperfective given first and the progressive imperfective second: *aswáat/kei anaswát* 's/he is raising him/her/it'; *asxook/yaa anasxúk* 's/he is drying it'; and *aksakei/yei akanaskéin* 's/he is untangling it'. These verbs describe activities which require a significant amount of time, which may be the logic behind the use of the progressive imperfective as an equivalent to the basic imperfective.

A few other active verbs have progressive imperfective forms. These tend to give the meaning '(verbing) along' or 'going along (verbing)', and usually pertain to verbs

which can be carried out while moving from one place to the next. Examples are given in the basic imperfective first, followed by the progressive imperfective: *al'eix* 's/he is dancing; s/he dances'/*yaa anal'éx* 's/he is dancing along'; *ast'eix* 's/he is trolling; s/he trolls'/*yaa anast'éx* 's/he is trolling along'; *aagáa kushée* 's/he is searching for it; s/he searches for it'/*aagáa yaa kunashéen* 's/he is going along searching for it'.

At least two active verbs in the progressive imperfective are preferred with the adverb *yeisú* and give the meaning 'still (verbing)'. These are: *yoo has x'ali.átk* 'they are conversing' as compared to the progressive imperfective: *(yeisú) yaa has x'anal.át* 'they are still conversing'; and *sh kalneek* 's/he is telling a story' as compared to: *(yeisú) aadé yaa sh kanalník* 's/he is still getting to the point'.

And finally, for another active verb, the progressive form gives the meaning 'beginning to (verb)': *gáax* 's/he is crying' and *kei nagáx* 's/he is beginning to cry'.

8.2.2 Stative Verbs

Stative verbs in Tlingit also have basic imperfective forms, and most, but not all, describe a particular state of being. Given that general meaning, these verbs in the progressive imperfective form produce the meaning 'getting to be (that way)'. Examples are given in Table 33.

Table 33. Stative Verbs in the Progressive Imperfective

Imperfective		Progressive Imperfective	
kayagéi	'it's big'	*yaa kanagéin*	'it's getting big'
si.áax'w	'it's sour'	*kei nas.áax'w*	'it's getting sour'
kuligóos'	'it's cloudy'	*kei kunalgóos'*	'it's getting cloudy'
si.áat'	'it's cold'	*yaa nas.át'*	'it's getting cold'
lidzée	'it's difficult'	*kei naldzéen*	'it's getting difficult'
yak'éi	'it's good'	*kei nak'éin*	'it's getting better'
linálx	's/he's rich'	*kei nalnálx*	's/he's getting rich'
yanéekw	's/he's sick'	*kei nanéekw*	's/he's getting sick'

Not all stative verbs have progressive imperfective forms. A few examples of stative verbs without progressive imperfective forms are: *tuli.aan* 's/he is kind'; *yéi kwdzigéi* 'they're small'; and *yéi aya.óo* 's/he is wearing it'.

8.2.3 Motion Verbs

The progressive imperfective is used most widely with verbs that describe motion. Since motion verbs as a category do not have basic imperfective forms, most use the progressive imperfective form to describe a motion in progress. For example: *yaa nagút* 's/he is walking along' and *yánde yaa nahú* 's/he is wading ashore'. Examples from this category are endless as most motion verbs have a progressive imperfective form. A select few are given below, first in the perfective and then in the progressive imperfective.

(194a) *át kuwatín* 's/he traveled there'
(194b) *aadé yaa kunatín* 's/he's traveling there'

(195a) *yan akawligáa* 's/he put up food'
(195b) *yánde yaa akanalgéin* 's/he is putting up food'

(196a) *<u>k</u>ut wujixeex* 's/he ran away'
(196b) *<u>k</u>ut kei nashíx* 's/he is running away'.

8.2.4 Eventive Verbs

Many eventive verbs in Tlingit describe an event that takes place instantaneously. For the most part, it is not useful to discuss the process of the event. In these cases, no progressive imperfective form exists. Here are a few examples, given in the perfective: *aawa.oo* 's/he bought it'; *aawasháat* 's/he caught it'; and *aawat'ei* 's/he found it'. There are however, some eventive verbs which don't describe instantaneous events, and for which it may be useful to discuss the process of the occurrence. In this case, the progressive imperfective form is used. A few examples are: *iwlich'é<u>x</u>'w* 'you're dirty'/*yaa inalch'é<u>x</u>'w* 'you're getting dirty'; *ashawlihík* 's/he filled it'/*yaa ashanalhík* 's/he's filling it'; and *wudishán* 's/he's old'/*yaa ndashán* 's/he's getting old'. A few other eventive verbs in the progressive imperfective give the meaning 'starting to (verb)'. Two examples are: *wuduwanúk* 'it blew; it's blowing (of wind)'/*yaa ndunúk* 'it's starting to blow'; and *wudli.úk* 'it's boiling; it boiled'/*yaa nal.úk* 'it's starting to boil'.

8.3 Negative Progressive Imperfective

The negative progressive imperfective is much less common than the affirmative. It is a relatively cumbersome thing to say, with little practicality – in few contexts does one need to say 's/he is not in the process of doing it' (as opposed to the simple negative imperfective 's/he's not doing it'). In attempting to collect the negative progressive form for verbs in this resource at the outset of my research, it quickly became evident that this is not a form that speakers use with any frequency. While there may be isolated incidents in which one would require the negative progressive

imperfective form, the overall utility of this form seems very low, and thus was not collected for this project.

9. Future

The future form has a range of possible meanings. Among them are these translations: 's/he will do it; s/he is going to do it', or 'it will happen'. Examples are *akgwaxáa* 's/he will eat it' and *kukahóon* 'I will sell it'. Especially in the second person, but also in the third and fourth person, the future can be used prescriptively (as a command or suggestion to do something), as in *gageetóow* 'you are to read it' or 'you should read it'; and *gaxduxáa* 'it should be eaten'. The prescriptive use of the future is found in instructions for making something (recipes, for example), or explanations of how something should be done (such as performing rites) (Leer 1991). The future can also be a way to translate the English 'can'. For example, *I tuwáa ksagwéini kgeetóow* 'you can read it if you like'. In order to give the meaning 'can', the future is usually accompanied by some kind of conditional phrase such as *I tuwáa ksagwéini* 'if you like' (Leer 1991).

The future form is characterized by the future prefix string *ga-u-ga-* and the –I form of the classifier (*sa-, s-, sha-, sh-, la-, l-, Ø-, or da-)*. The future prefix string contracts with the different subject prefixes in different ways. To illustrate, look at the future paradigm in (197a-f) below, where the contractions produced by combining the future prefix string with each of the subject prefixes are given in bold type. Note also the –I classifier *da-*.

(197a)	***kuka****dashóoch*	'I will strength-train (by bathing in cold water)'
(197b)	***gagi****dashóoch*	'you will strength-train'
(197c)	***gux****dashóoch*	's/he will strength-train'
(197d)	***gaxtu****dashóoch*	'we will strength-train'
(197e)	***gaxyi****dashóoch*	'you all will strength-train'
(197f)	***gaxdu****shóoch*	'someone will strength-train'

It is important to know that there are variations for most of the subject prefix plus future prefix combinations. For example, sometimes the first person singular future subject prefix is *ku<u>k</u>a-* and sometimes it is *k<u>k</u>wa-*. Factors that influence the shape of the contractions are: 1) the presence of a vowel-final thematic prefix (*ka-, tu-, ji-,* etc.) or a preverb ending in a vowel (*kei, yei, yoo,* etc.), and 2) the shape of the classifier, specifically whether or not the classifier has a vowel. For comparison with the paradigm above, another is given below, again with the subject prefix plus future prefix combinations in bold. The verb given in (198a-f) below has the thematic prefix *<u>x</u>'a-* and the (-I) classifier *Ø-* while the above paradigm has no thematic prefix and the (-I) classifier *da-*. Note the differences between the subject prefix plus future prefix combinations between the two paradigms.

(198a) *<u>x</u>'a**<u>k</u>kwa**wóos'* 'I will ask him/her'
(198b) *<u>x</u>'a**k<u>g</u>ee**wóos'* 'you will ask him/her'
(198c) *a<u>x</u>'a**k<u>g</u>wa**wóos'* 's/he will ask him/her'
(198d) *<u>x</u>'a**ga<u>x</u>too**wóos'* 'we will ask him/her'
(198e) *<u>x</u>'a**ga<u>x</u>yee**wóos'* 'you all will ask him/her'
(198f) *<u>x</u>'a**ga<u>x</u>du**wóos'* 'someone will ask him/her'

Please refer to the future prefix combination chart in Appendix D to see the full range of combinations of the future prefix string and each of the subject prefixes with different thematic prefixes and classifiers.

In addition to the future prefix string *ga-u-<u>g</u>a*, some verbs require another element in the future tense. All *ga* conjugation verbs require the preverb *kei* and *<u>g</u>a* conjugation verbs require the preverb *yei* in the future tense. Examples are given in (199a-200b). The imperative form is given in (a) of each set below to show the conjugation prefix of the verb.

(199a) *Igak'éi!* 'Be good!'
(199b) *kei kg̲wak'éi* 'he/she/it will be good'

(200a) *g̲a.éex'!* 'Invite him/her!'
(200b) *yei akg̲wa.éex'* 's/he will invite him/her'

9.1 Stem Variation in the Affirmative Future

The affirmative future is among the easiest to conjugate in Tlingit, with respect the verb stem. With the exception of invariable roots, all verbs have long high stems in the affirmative future. Verbs with invariable roots have the same stem in the future mode as in the perfective, imperfective, imperative, and so on. Below are examples of two verbs with invariable roots. Note that in the first, the stem is consistently short and high –*núkts* throughout the paradigm, and in the second, the stem is always long and low –*tseen*. Neither verb has a long, high stem in the future form and this is because the roots are invariable.

(201a)	*linúkts*	'he/she/it is sweet'	(imperfective)
(201b)	*wulinúkts*	'he/she/it was sweet'	(perfective)
(201c)	*kei gux̲lanúkts*	'he/she/it will be sweet'	(future)

(202a)	*litseen*	'he/she/it is strong'	(imperfective)
(202b)	*wulitseen*	'he/she/it was strong'	(perfective)
(202c)	*kei gux̲latseen*	´he/she/it will be strong'	(future)

Table 34 below illustrates that regardless of root shape or conjugation prefix, all variable roots have long high stems in the affirmative future.

Table 34. Stem Variation in the Affirmative Future

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́V akgwaxáa 's/he will eat it' O-S-Ø-xaa~ (Ø act) 'for S to eat O'	CV́V akakgwaháa 's/he will plant it' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
CVV^{h}	CV́V aguxsatáa 's/he will steam it' O-S-s-taa^{h}~ (Ø act) 'for S to boil, steam O'	CV́V gugatáa 's/he will sleep' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
CVVC	CV́VC aguxsaxóok 's/he will dry it' O-S-s-xook~ (Ø act) 'for S to dry O'	CV́VC akgwaxáash 's/he will cut it' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
CV́VC	CV́VC aguxsawáat 's/he will raise him/her' O-S-s-wáat~ (Ø act) 'for S to raise O'	CV́VC yei aguxlasháat 's/he will hold it' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
CV́VC'	CV́VC' aguxsa.áat' 's/he will chill it' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́VC' akgwa.óos' 's/he will wash it' O-S-Ø-.óos'~ (na act) 'for S to wash O'

9.2 Negative Future

Now let's look at the negative future. The negative future translates as 's/he won't do it; s/he isn't going to do it' or 'it's not going to happen'. The negative future is formed by adding the negative particle *tlél/tléil*, and like the affirmative future, requires the –I form of the classifier. The only difference between the affirmative and negative future (besides the presence of the negative particle *tlél/tléil*), will be the tone on the verb stem for some verbs. For other verbs, the two forms are identical.

9.2.1 Stem Variation in the Negative Future

Verbs with variable roots always have the basic stem form in the negative future. For all open roots, this means long low stems. For closed roots, there are two possibilities. CVVC roots have long low stems. CV́VC and CV́VC' roots have long high stems, as these never have long low stems. An easy way to determine what the stem will be in the negative future then, is to look at the form given in the theme at the top of each verb entry on the CD. Remember that the form given in the theme is always the basic stem form. (See Chapter 3 for a review of this topic). In the table below, notice that the stem of each verb in the negative future is the same as that given in the basic stem shape column. The future prefix combination chart in the appendix will help you determine the rest of the verb word for any given subject prefix. Table 35 below summarizes stem variation in the negative future for each basic stem type.

Table 35. Stem Variation in the Negative Future

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CVV tlél akgwaxaa ‘s/he won’t eat it’ O-S-Ø-xaa~ (Ø act) ‘for S to eat O’	CVV tlél akakgwahaa ‘s/he won’t plant it’ O-ka-S- Ø-haa~ (na act) ‘for S to plant O’
CVV^{h}	CVV tlél aguxsataa ‘s/he won’t steam it’ O-S-s-taa^{h}~ (Ø act) ‘for S to boil, steam O’	CVV tlél gugataa ‘s/he won’t sleep’ S-Ø-taa^{h}~ (na act) ‘for (singular) S to sleep’
CVVC	CVVC tlél aguxsaxook ‘s/he won’t dry it’ O-S-s-xook~ (Ø act) ‘for S to dry O’	CVVC tlél akgwaxaash ‘s/he won’t cut it’ O-S-Ø-xaash~ (na act) ‘for S to cut O with knife’
CV́VC	CV́VC tlél aguxsawáat ‘s/he won’t raise him/her’ O-S-s-wáat~ (Ø act) ‘for S to raise O’	CV́VC tlél yei aguxlasháat ‘s/he won’t hold it’ O-S-l-sháat~ (ga act) ‘for S to hold, retain O’
CV́VC’	CV́VC’ tlél aguxsa.áat’ ‘s/he won’t chill it’ O-S-s-.áat’~ (Ø act) ‘for S to make O cold’	CV́VC’ tlél akgwa.óos’ ‘s/he won’t wash it’ O-S-Ø-.óos’~ (na act) ‘for S to wash O’

10. Hortative

The hortative is the semantic equivalent to the imperative 'do it', but only occurs with 1st and 3rd person subjects, translating as 'let me/us do it' or 'let him/her/them do it'. A common example is *na<u>x</u>too.aat* 'let's go'.

There are five elements to discuss regarding the structure of the hortative: 1) the classifier; 2) the conjugation prefix; 3) the aspect prefix *<u>g</u>a-*; 4) the verb stem, and; 5) an optional suffix. Each of these topics will be covered below in turn.

10.1 Classifier

The hortative always requires the –I form of the classifier. Remember that –I classifiers are: *sa-, s-, sha-, sh-, la-, l-, Ø-,* and *da-*. In the forms given in Table 36 below, we see the classifiers (from top to bottom, given in bold): *da-, sa-, Ø-,* and *l-*.

Table 36. Classifiers in the Hortative.

Clf	Hortative	English
da-	*a<u>x</u>**da**naa*	'let him drink it'
sa-	*a<u>x</u>**sa**xook*	'let him dry it'
Ø-	*a<u>g</u>a<u>x</u>aa*	'let him eat it'
l-	*an<u>g</u>a**l**<u>k</u>áa*	'let him gamble'

10.2 Conjugation Prefix and Aspect Prefix *<u>g</u>a-*

The hortative is one of the forms that reveal which of the conjugation prefixes *(Ø-, na-, ga-,* or *<u>g</u>a-)* a verb uses. The hortative requires the verb's conjugation prefix as well as the aspect prefix *<u>g</u>a-*. Verbs that use the *na-* conjugation prefix then, will have both *na-* and *<u>g</u>a-* in the hortative; verbs that use the *<u>g</u>a-* conjugation prefix will have both *<u>g</u>a-* and *<u>g</u>a-* in the hortative, and so on. Because the hortative form requires both the verb's regular conjugation prefix AND the aspect prefix *<u>g</u>a-*, there are a lot of prefix combinations to be aware of. Table 37 contains an example verb for each

conjugation prefix, given first in the imperative (which will demonstrate the conjugation prefix belonging with the verb), and then in the hortative, (which will show the combination of conjugation prefix (CP) and aspect prefix (AP) *ga-)*.

Table 37. Conjugation Prefixes and Aspect Prefix in the Hortative

CP	Imperative	English	CP + AP	Hortative	English
Ø-	*Idashúch!*	'Bathe!'	*Ø-ga-*	*gadashooch*	'let him bathe'
na-	*Yéi inatí!*	'Be that way!'	*na-ga-*	*yéi ngatee*	'let him be that way'
ga-	*Gagaax!*	'Cry!'	*ga-ga-*	*gagagaax*	'let him cry'
ga-	*Galsháat!*	'Hold it!'	*ga-ga-*	*agaaxlasháat*	'let him hold it'

The combination of the aspect prefix *ga-* and each of the conjugation prefixes results in a number of different contractions, all influenced by the subject prefix and/or classifier which follow them. While some of these combinations will be highlighted here, please see the prefix combination charts in the appendices for a complete list of possible contractions in each given environment. The prefix combination charts relevant to the hortative form will be *ga-* plus the conjugation prefix of the verb, since these are the prefixes required by the hortative. Specifically, the prefix combination charts that will display information for the hortative are: *ga-* (for *Ø* conjugation verbs); *na-ga-* (for *na* conjugation verbs); *ga-ga-* (for *ga* conjugation verbs); and *ga-ga-* (for *ga* conjugation verbs).

10.2.1 First Person Singular Prefix Combinations

The common denominator for hortatives with a first person singular subject *xa-* 'I' is the presence of *ka-* which results from the combination of the aspect prefix *ga-* and the subject prefix *xa-.* Let's look at example verbs for each of the conjugation prefixes. In Table 38, CP stands for the verb's conjugation prefix; AP represents the aspect prefix *ga-* which is required in the hortative; Subj stands for the subject

prefix (in this case *xa-* 'I'); the Combo column gives the result of combining the preceding prefixes; the Example column provides a concrete example of a Tlingit verb; and the English column gives the translation of the Tlingit verb form.

Table 38. First Person Singular Prefix Combinations in the Hortative

CP	AP	Subj	Combo	Example	English
Ø- +	*ga- +*	*xa- + =*	*ka-*	*Kaxaa.*	'Let me eat it.'
na- +	*ga- +*	*xa- + =*	*naka-*	*Nakagoot.*	'Let me go.'
ga- +	*ga- +*	*xa- + =*	*gaka-*	*Gakagwaal.*	'Let me beat it.'
ga- +	*ga- +*	*xa- + =*	*kaaka-*	*Kaakaxoox.*	'Let me call him.'

The first person singular subject prefix combinations in the hortative are fairly straightforward in that they are not affected by the classifiers. In other words, the above given combinations are consistent despite the rest of the verb word. This is not the case, however, for the other subject prefixes.

10.2.2 First Person Plural Prefix Combinations

The first person plural prefix combinations in the hortative are additionally influenced by the classifier. If the classifier has no vowel, then the subject prefix is *too-*; if the classifier has a vowel, then the subject prefix is shortened to *tu-*. In Table 39 below, also note that the aspect prefix *ga-* becomes *x-* when adjacent to the subject prefix *too-/tu-*.

Table 39. First Person Plural Prefix Combinations in the Hortative

CP	AP	Subj	Clf	Combo	Example	English
Ø-	*ga-*	*too-*	*no vowel*	*gatoo-*	*At gatooxaa.*	'Let's eat.'
			vowel	*gatu-*	*Gatulatsík.*	'Let's barbecue it.'
na-	*ga-*	*too-*	*no vowel*	*naxtoo-*	*Naxtoo.aat.*	'Let's go.'
			vowel	*naxtu-*	*Naxtudatóow.*	'Let's read.'
ga-	*ga-*	*too-*	*no vowel*	*gaxtoo-*	*Gaxtoogwaal.*	'Let's beat it.'
			vowel	*gaxtu-*	*Gaxtulak'ei.*	'Let's improve it.'
ga-	*ga-*	*too-*	*no vowel*	*gaaxtoo-*	*Gaaxtoo.éex'.*	'Let's invite him.'
			vowel	*gaaxtu-*	*Gaaxtulagoo.*	'Let's wipe it.'

10.2.3 Third Person Prefix Combinations – Intransitive Verbs

A discussion of third person prefix combinations in the hortative must be divided into intransitive and transitive verbs. Let's look at intransitive verbs (verbs with no object) first. As we saw above with the first person plural prefix combinations, the third person prefix combinations in the hortative are also influenced by the verb's classifier. In Table 40 below, notice that when the aspect prefix *ga-* is the middle of three open syllables, the vowel drops out of *ga-* and the *g-* becomes *x-*.

Table 40. Third Person Prefix Combinations in the Hortative – Intransitive Verbs

CP	AP	Subj	Clf	Combo	Example	English
Ø-	*ga-*	*Ø-*	*no vowel*	*ga-*	*At gaxaa.*	'Let him eat.'
			vowel	*ga-*	*At gadanaa.*	'Let him drink.'
na-	*ga-*	*Ø-*	*no vowel*	*naga-*	*Nagagoot.*	'Let him go.'
			vowel	*nax-*	*Naxdatóow.*	'Let him read.'
ga-	*ga-*	*Ø-*	*no vowel*	*gaga-*	*Gagagaax.*	'Let him cry.'
			vowel	*gax-*	*Gaxla.éil'.*	'Let it be salty.'
ga-	*ga-*	*Ø-*	*no vowel*	*gaaga-*	*Gaagasháash.*	'Let it wear out.'
			vowel	*gaax-*	*Gaaxdaxéet'.*	'Let him sweep.'

10.2.4 Third Person Prefix Combinations – Transitive Verbs with Third Person Object

Remember that when both the subject and object of a transitive verb are third person 'him/her/it/them', the third person object pronoun *a-* is present. This object pronoun influences the prefix combinations, changing them from the above. Table 41 below shows these prefix combinations. Note that again, the verb's classifier influences the outcome. As seen above, the *ga-* aspect prefix becomes *x-* when it's the middle of three open syllables (exclusive of the root). Similarly, the conjugation prefix *ga-*, when the middle of three open syllables, drops its vowel and becomes *k-*, as can be seen in the example *akgagwaal* in Table 41 below. Note however that in the event of four open syllables in a row, as in *agaxlak'ei* in Table 41, the *ga-* undergoes contraction becoming *x-*, and leaving *ga-* intact.

Table 41. Third Person Prefix Combinations in the Hortative – Transitive Verbs

Obj	CP	AP	Subj	Clf	Combo	Example	English
a-	*Ø-*	*ga-*	*Ø-*	*no vowel*	*aga-*	*Agaxaa.*	'Let him eat it.'
				vowel	*ax-*	*Axdanaa.*	'Let him drink it.'
a-	*na-*	*ga-*	*Ø-*	*no vowel*	*anga-*	*Angaxaash.*	'Let him cut it.'
				vowel	*anax-*	*Anaxsanook.*	'Let him carry her.'
a-	*ga-*	*ga-*	*Ø-*	*no vowel*	*akga-*	*Akgagwaal.*	'Let him beat it.'
				vowel	*agax-*	*Agaxlak'ei.*	'Let him improve it.'
a-	*ga-*	*ga-*	*Ø-*	*no vowel*	*agaaga-*	*Agaaga.éex'.*	'Let him invite her.'
				vowel	*agaax-*	*Agaaxlagoo.*	'Let him wipe it.'

None of the above tables address the presence of a thematic prefix (*ka-, tu-, ji-, etc.*) in the hortative prefix combinations, although for some combinations, the thematic prefix does influence the outcome. However, these combinations follow the same logic as those discussed above and will not be described in detail here. Please see the relevant prefix combination charts for the effect of thematic prefixes on these contractions.

10.3 Stem Variation in the Hortative

Like the negative future, verbs in the hortative have the basic stem form, barring a few exceptions. Before continuing the discussion of verb stem variation in the hortative, it is important to mention that everything that follows applies to the potential mode as well. The verb stem will be the same in the hortative and potential modes for all verbs. Verbs with open roots in the hortative mode, regardless of conjugation prefix, have long low stems. Examples (203) and (204) are CVV roots and are *Ø* and *na* conjugation respectively. Examples (205) and (206) are CVV^{h} roots and are *Ø* and *ga* conjugation respectively. All four examples have long low stems in the hortative.

(203) *aka<u>x</u>lachaa* 'let him strain it'
(204) *akana<u>x</u>sa.aa* 'let her grow it'
(205) *a<u>x</u>sataa* 'let him steam it'
(206) *aa<u>x</u> ak<u>g</u>atee* 'let her pick it up off of it'

As was mentioned in Chapter 6 on the imperative mode, there is a handful of verbs with open roots which unexpectedly have long high stems in the imperative, hortative, and potential modes. Note that this only occurs with *Ø* conjugation verbs, and never with *na, ga*, or *<u>g</u>a* conjugation verbs. These are notated in the verb theme in parentheses, following the verb's conjugation prefix and verb type as: *CV́V Imp/Hort/Pot*. For example, the theme for the first example given below is: *O-ya-S-s-*

haa~ (Ø act; CV́V Imp/Hort/Pot). This alerts the reader to the fact that this verb has the unexpected stem form in the imperative, hortative, and potential forms. The list of known examples is repeated here in the hortative mode.

(207) *áx' kagaháa* 'let it be there'
(208) *du toowú axlat'áa* 'let him comfort her'
(209) *ayaxsaháa* 'let him gather it'
(210) *ashukagajáa* 'let her instruct him'
(211) *axsakóo* 'let him know it'
(212) *gadusháa* 'let her get married'
(213) *agasháa* 'let him marry her'
(214) *agaxáa* 'let her paddle'
(215) *aagáa agawóo* 'let her send for it'
(216) *aadé akunganáa* 'let her send him there'
(217) *axsanáa* 'sun-dry it'
(218) *axlal'áa* 'let him suck it'
(219) *axdawóo* 'let him take lunch'
(220) *agax'áa* 'twist it (flexible part of a tree) to limber it'
(221) *axdax'óo* 'wear it (blanket)'
(222) *gadaláa* 'yell'

Now let's look at closed roots, beginning with CVVC roots. Verbs with roots having the basic shape CVVC (regardless of conjugation prefix) have long low stems in the hortative. Examples follow, where (223) is a *Ø* conjugation verb and (224) a *ga* conjugation verb.

(223) *séew daak gasataan* 'let it rain'
(224) *gagagaax* 'let him cry'

The other two subtypes of closed roots, CV́VC and CV́VC', have long high stems in the hortative. Remember that these verbs only have two stem variants (long high and short high), and therefore never have long low stems. Example (225) is a CV́VC *Ø* conjugation verb; (226) is a CV́VC *na* conjugation verb; (227) is a CV́VC' *Ø* conjugation verb, and; (228) is a CV́VC' *na* conjugation verb.

(225) *át ka<u>g</u>agwáatl* 'let it roll to it'
(226) *an<u>g</u>as'óow* 'let him chop it'
(227) *ayaka<u>x</u>lakées'* 'let her put it out (fire, light)'
(228) *na<u>g</u>atáa<u>x</u>'w* 'let it sink'

Similar to the exceptions noted for the open roots above, there are a number of verbs with closed roots that unexpectedly have short high stems in the hortative and potential modes. I have not found anywhere in the literature where these exceptions have been discussed thus far. The exceptions are all *Ø* conjugation verbs. These are notated in the verb theme as *CV́C Hort/Pot*. For example, the theme for the first example given below is: *O-ka-S-Ø-s'eet~ (Ø act; CV́C Hort/Pot)*. Although there are many, it is worth listing them here for the sake of thoroughness. Note that the current corpus of data represents only about one quarter of the stems in Tlingit, so this list is not exhaustive, but gives the known exceptions to date. We will begin with CVVC roots.

(229) *ash <u>g</u>asa<u>x</u>é<u>k</u>* 'let her keep him awake'
(230) *aka<u>g</u>as'ít* 'let her bandage it'
(231) *a<u>x</u>latsík* 'let him barbecue it'
(232) *a<u>x</u>layé<u>x</u>* 'let her build it'
(233) *asha<u>x</u>lahík* 'let him fill it'
(234) *aka<u>x</u>las'úk* 'let him fry it, toast it'
(235) *a<u>g</u>alsín* 'let him hide himself'

(236) *a<u>x</u>lasín* ‘let her hide it’

(237) *ak<u>g</u>achúx* ‘let her knead it’

(238) *a yá<u>x</u> ka<u>g</u>axát* ‘let it look like it’

(239) *ak<u>g</u>a<u>g</u>útl* ‘let him mash it’

(240) *a<u>g</u>a.ín* ‘let her pick them’

(241) *k’idéin aka<u>x</u>saxát* ‘let him pull it tight’

(242) *a<u>x</u>laxwách* ‘let her scrape it (a hide, in order to soften it)’

(243) *aka<u>x</u>la.ísh* ‘let him string them together’

(244) *<u>k</u>oon a<u>g</u>atlákw* ‘let her tell people a legend’

(245) *át<u>x</u> a<u>x</u>layé<u>x</u>* ‘let him use it for it’

(246) *a<u>x</u>latín* ‘let her watch it’

(247) *ak<u>g</u>ayé<u>x</u>* ‘let him whittle it’

(248) *aka<u>x</u>shaxít* ‘let her write it’

The next set of exceptions are CV́VC roots.

(249) *a<u>x</u>la.úk* ‘let him boil it’

(250) *ak<u>g</u>achák* ‘let him pack it’

(251) *aya<u>g</u>ax’át* ‘let her sharpen it’

The final set of examples are CV́VC’ roots.

(252) *ak<u>g</u>axíl’* ‘let her bother him’

(253) *ak<u>g</u>ach’ák’w* ‘let her carve it’

(254) *aka<u>x</u>sha<u>x</u>’ál’* ‘let her cook herring eggs’

(255) *<u>g</u>al<u>k</u>ít’* ‘let it get infected’

(256) *an<u>g</u>alk’wát’* ‘let it lay an egg’

(257) *ka<u>x</u>sha<u>k</u>útl’* ‘let him get muddy’

(258) *<u>k</u>u<u>g</u>ak’ít’* ‘let her pick berries’

(259) *akgat'íx'* 'let him pound it'

(260) *sh káa x'axdagáx'* 'let her pray'

(261) *xaat axlas'él'* 'let him pull up spruce roots'

(262) *agaxás'* 'let her scrape it'

(263) *akgadúx'* 'let him tie it'

Table 42 below summarizes the discussion of verb stem variation in the hortative mode. Note that where two forms are given in a single cell, the second is the exception to the general rule, and applies to a limited number of verbs, all given in the examples above.

Table 42. Stem Variation in the Hortative

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CVV agaxaa 'let him eat it' O-S-Ø-xaa~ (Ø act) 'for S to eat O'	CVV akangahaa 'let her plant it' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
	CV́V gadusháa 'let her get married' O-du-Ø-shaa~ (Ø event; CV́V Imp/Hort/Pot) 'for O to get married'	
CVV^{h}	CVV axsataa 'let her steam it' O-S-s-taa^{h}~ (Ø act) 'for S to boil, steam O'	CVV nagataa 'let him sleep' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
	CV́V axsakóo 'let him know' O-S-s-koo^{h}~ (Ø event; CV́V Imp/Hort/Pot) 'for S to know O'	
CVVC	CVVC axsaxook 'let him dry it' O-S-s-xook~ (Ø act) 'for S to dry O'	CVVC angaxaash 'let her cut it' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
	CV́C axlatsík 'let her bbq it' O-S-l-tseek~ (Ø act; CV́C Hort/Pot) 'for S to broil O slowly'	
CV́VC	CV́VC axsawáat 'let her raise him' O-S-s-wáat~ (Ø act) 'for S to raise O'	CV́VC agaaxlasháat 'let her hold it' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
	CV́C akgachák 'let him pack it' O-ka-S-Ø-cháak~ (Ø act; CV́C Hort/Pot) 'for S to pack O'	
CV́VC'	CV́VC' axsa.áat' 'let him chill it' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́VC' anga.óos' 'let him wash it' O-S-Ø-.óos'~ (na act) 'for S to wash O'
	CV́C' agaxás' 'let her scrape it' O-S-Ø-xáas'~ (Ø act; CV́C' Hort/Pot) 'for S to scrape O'	

10.4 Hortative Suffix

Hortative forms take an optional suffix –*(y)i* or-*u*. The presence or absence of this suffix seems to be based on speaker preference and/or style. For example, either of these forms would be considered correct: *yangaxeex / yangaxeexí* 'let it happen', as would either of these: *yéi kunganook / yéi kunganoogú* 'let him/her do it'. The suffix is –*i* following most consonants**.** If the verb stem ends in an unrounded vowel (*a, e, i)*, then *y* is inserted before the suffix –*i,* as in *aadé akanaxsaxaayí* 'let him pour it out there.' The –*u* suffix is used for all verbs ending in –*w* preceded by a vowel, words ending in any form of –*k* or –*x* preceeded by –*oo* or –*u,* and verbs ending in any form of –*k* or –*x* followed by –*w*. In this last case, drop the *w*- before adding the –*u* suffix. For example, *axlach'éix'w / axlach'éix'u* 'let him get it dirty'. Whether –*i* or –*u*, the suffix will take the opposite tone as that of the verb stem. The rules for this suffix largely follow the same rules as the possessive suffix, as described in Unit 2 of Dauenhauer et al (2010). Please see this reference for an exhaustive description of the rules pertaining to this suffix.

It is important to note that for some verbs, speakers do not accept the suffix on the hortative form. A couple of examples follow. The asterisk (*) preceding the forms in (264b) and (265b) below indicate that those forms are not acceptable to native speakers of the language.

(264a) *kadashooch* 'let me bathe'
(264b) **kadashoojí*

(265a) *aga.óon* 'let him shoot it'
(265b) **aga.óoni*

Further research is necessary in order to determine any constraints governing acceptability of the hortative suffix on a given verb.

Finally, it should be noted that in natural speech, the hortative is often preceded by *ch'a* 'just' and followed by *de(i)* 'now', translating as 'just let him (verb) now'. These additional words often make the hortative form sound much more natural. Examples (266) and (267) follow.

(266) *Ch'a yéi yangakaa dei.* 'Just let him say it now.'

(267) *Ch'a ngagoot dei.* 'Just let him go now.'

11. Repetitive Imperfective

The repetitive imperfective in Tlingit is used to describe something which occurs regularly or repeatedly. This form is translated into English as 's/he does it (regularly)'. The purpose of the parenthetical (regularly) as part of the definition is to distinguish it from the English translations of the basic imperfective 's/he does it', and the perfective habitual 's/he does it (every time)'. The semantic differences between these three forms can be subtle. The imperfective form indicates a situation in the present tense, or a situation which is generally true, as in: *at sa.ée* 's/he is cooking (presently)' or 's/he cooks (generally)'. The perfective habitual indicates a situation which occurs every time another situation is true (every time X happens, every Sunday, every evening, etc.), as in: *at us.éeych* 's/he cooks (every time)'. This form might be used in the context 'she cooks every time her grandmother comes over' or 'he cooks every Saturday'. The repetitive imperfective indicates a situation that occurs regularly, but without being contingent on another event, or a specific time, as in: *at is.éex* 's/he cooks (regularly)'. This form might be used to indicate that he does the cooking in his household, for example. Additional examples of repetitive imperfective forms are: *Du taayí yoo x'ayatánk*. 'She talks in her sleep (regularly).' and; *X'aan gookx' áwé yéi akéech.* 'People sit around the fire (regularly).'

The structure of the repetitive imperfective form is tied to each verb theme's conjugation prefix. Remember from Section 2.10 that the conjugation prefix of motion themes is determined by the direction word/phrase that accompanies it, and thus a given verb stem (such as *–goot* 'go on foot (singular subject)') may occur in multiple themes in all four conjugation categories. Motion themes belonging to the *na, ga,* and *ga* conjugation categories behave the same as active, stative, and eventive verbs in each of these categories with respect to the repetitive imperfective form. It's the *Ø* conjugation motion themes that present a more complex situation. There are six subgoups of *Ø* conjugation motion themes, distinguished by their

repetitive imperfective morphology. Each group has a specific combination of preverb, prefix, and/or suffix required by the repetitive imperfective form. Please refer to the appendix of Edwards (2009a) for a full description of motion themes and their repetitive imperfective forms. The following discussion applies to all active, stative, and eventive verb themes, and motion themes that use the *na-*, *ga-,* or *ga-* conjugation prefixes.

Although the conjugation prefix is not present in the repetitive imperfective, it determines a verb's repetitive imperfective form. Table 43 below illustrates the relationship between the conjugation prefix (CP) and the repetitive imperfective form of the verb. For each CP, the table shows the preverb (a word which occurs to the left of the verb), the form of the classifier, and the suffix used in the repetitive imperfective form, along with an example.

Table 43. Repetitive Imperfective Forms for Each Conjugation Category

CP	**Preverb**	**Classifier**	**Suffix**	**Example**
Ø-, na-*	---	*-I*	*-x*	*as.éex* 'he cooks it (regularly)'
na-	*yoo*	*+I*	*-k*	*yoo ayal'óonk* 'he hunts it (regularly)'
ga-	*kei*	*-I*	*-ch*	*kei latseench* 'he gets strong (regularly)'
ga-	*yei*	*-I*	*-ch*	*yei adagánch* 'it gets sunny (regularly)'

*Note that a few *na* conjugation verbs use this repetitive imperfective form, but the majority uses the one listed in the following row.

Each of the repetitive imperfective types listed in the table above will be discussed in turn. In each of the tables below the imperative forms are given to illustrate the verb's conjugation prefix, and the imperfective forms are given for comparison with their repetitive imperfective counterparts.

11.1 Ø Conjugation Verbs

In the repetitive imperfective form, *Ø* conjugation verbs use the –I form of the classifier (*la-, s-, Ø-, and da-* respectively in Table 44 below) and require the repetitive suffix *–x*. Note that open verb stems (those that end in a vowel) such as *awsit'áa* 's/he warmed it up' will always have a long vowel when a suffix is added, as in *ast'eix* 's/he warms it up (regularly)'. Note also the apophony taking place, where the sound of the vowel changes from *–aa* to *-ei* in this particular verb stem. As with the *–ch* suffix used in the perfective habitual and the *–n* suffix used in the progressive imperfective and conditional, this is a requirement of the repetitive suffixes for verbs ending in *–aa* and *–oo*. In Tlingit, an open verb stem ending in *–aa* or *-oo* becomes *–ei* with the addition of a repetitive suffix (there seem to be exceptions for the repetitive suffix *–ch* and these will be discussed in Section 11.3).

Table 44. Repetitive Imperfective Forms for *Ø* Conjugation Verbs

CP	Imperative	Imperfective	Repetitive Imperfective
Ø-	*Kalas'úk!* Fry it!	*aklas'úk* s/he is frying it	*aklas'úkx* s/he fries it (regularly)
Ø-	*Sat'á!* Warm it up!	*ast'eix* s/he is warming it up	*ast'eix* s/he warms it up (regularly)
Ø-	*Kuk'ít'!* Pick berries!	*kuk'éet'* s/he is picking berries	*kuk'ít'x* s/he picks berries (regularly)
Ø-	*Yeedanákw!* Bait hooks!	*yadanákws'* s/he is baiting hooks	*yadanákwx* s/he baits hooks (regularly)

One more point regarding the example *ast'eix* in Table 44 above must be made. For a handful of verbs, the imperfective form is identical to the repetitive imperfective form. These are verbs that have no basic imperfective form (one without a repetitive suffix *–x, -k, -ch*), but whose repetitive imperfective form serves both purposes semantically. In other words, the form, which looks like a repetitive imperfective

form can have both of the following meanings: 's/he is doing it (presently)' and 's/he does it (regularly)'. In these instances, we consider the form to be both a basic imperfective (because it serves this purpose semantically) and repetitive imperfective. A familiar verb which serves as another example is *yoo x'ayatánk* 's/he is talking; s/he talks (regularly)'. This is a *na* conjugation verb, which is the next topic.

11.2 *Na* Conjugation Verbs

Most *na* conjugation verbs require the preverb *yoo/yóo* (the tone dependent on speaker dialect), the +I form of the classifier, and the suffix –*k*. Examples of these are given in the first four rows of the table below. The imperative forms are given to illustrate the conjugation prefix, but note that this prefix is not present in the repetitive imperfective.

There are some *na* conjugation verbs that use the repetitive imperfective form described above for *Ø* conjugation verbs (examples given in the final three rows in Table 45 below). A few *na* conjugation verbs have both repetitive imperfective forms, as shown in the 5th and 6th rows below. There doesn't seem to be any predictability as to which type of repetitive imperfective a *na* conjugation verb will take, however the majority fall into the first category (*yoo* preverb, +I classifier, *-k* suffix).

Table 45. Repetitive Imperfective Forms for *na* Conjugation Verbs

CP	Imperative	English	Repetitive Imperfective	English
na-	*Naxaash!*	Cut it!	*yoo ayaxáshk*	s/he cuts it (regularly)
na-	*Anal'eix!*	Dance!	*yoo ayal'éxk*	s/he dances (regularly)
na-	*Aneest'eix!*	Troll!	*yoo adzit'eixk*	s/he trolls (regularly)
na-	*Kanas.á!*	Grow it!	*yoo aksi.éik*	s/he grows it (regularly)
na-	*Yéi inatí!*	Be that way!	*yéi yoo yateek* OR *yéi teex*	that's the way he/she/it is (regularly)
na-	*Natóow!*	Read it!	*yoo ayatóowk* OR *atúwx*	s/he reads it (regularly)
na-	*A daa yanees.á!*	Examine it!	*a daa yas.éix*	s/he examines it (regularly)
na-	*Natá!*	Go to sleep!	*teix*	s/he sleeps (regularly)
na-	*Shaneesyá!*	Anchor!	*shasyéix*	s/he anchors (regularly)

11.3 *Ga* and *Ga* Conjugation Verbs

In the repetitive imperfective, as we have seen for the future tense, *ga* conjugation verbs use the preverb *kei* while *ga* verbs use the preverb *yei*. This is the only difference between these two groups in the repetitive imperfective form. Both use the –I form of the classifier and the repetitive suffix –*ch*. The first four rows in Table 46 below provide examples of *ga* verbs and the final four rows *ga* verbs. Again, although the conjugation prefix is not present in the repetitive imperfective form, all of the examples here serve to show the correlation between conjugation category and this form.

Table 46. Repetitive Imperfective Forms for *ga* and *ga* Conjugation Verbs

CP	Imperative	English	Repetitive Imperfective	English
ga-	*Igak'éi!*	Be good!	*kei k'éich*	he/she/it gets better (regularly)
ga-	*Gahées'!*	Borrow it!	*kei ahées'ch*	s/he borrows it (regularly)
ga-	*Gagaax!*	Cry!	*kei gáxch*	s/he cries (regularly)
ga-	*Gashgóok!*	Learn how to do it!	*kei ashgóokch*	s/he learns (fast) how to do it
ga-	*Geesgáax!*	Ask for it!	*yei asgáaxch*	s/he asks for it (regularly)
ga-	*Gaxoox!*	Summon him/her!	*yei axooxch*	s/he summons him/her (regularly)
ga-	*Galsháat!*	Hold it!	*yei alshátch*	s/he holds it (regularly)
ga-	*Galgú!*	Wipe it!	*yei algwéich*	s/he wipes it (regularly)

We've seen several examples so far of the repetitive suffixes causing apophony in verb stems ending in –*aa* and –*oo*. With respect to the repetitive suffix –*ch* (distinct from the habitual suffix –*ch*), there are three apparent exceptions. Already noted in Chapter 7 is the stem –*yaa* 'pack on one's back', given in (268a-b) below. Another exception is the stem –*goo* found in the themes for 'fun', 'happy', and 'want'. This is illustrated in Examples (269a-b) below, using the theme for 'want'. And finally, the stem –*ts'áa* 'fragrant' is given in (270a-b).

(268a) *O-S-Ø-yaa~ (ga event)* 'for S to carry O on back'
(268b) *kei ayáach* 's/he carries it on his/her back (regularly)'

(269a) *N tuwáa S-s-góo (ga sate)* 'for N to want, like, desire S'
(269b) *du tuwáa kei sagóoch* 's/he wants it (regularly)'

(270a) *O-l-ts'áa (ga state)* 'for O to be fragrant, sweet-smelling'
(270b) *kei lats'áaych* 'he/she/it becomes fragrant (regularly)'

11.4 Stem Variation in the Repetitive Imperfective

Stem variation in the repetitive imperfective mode is determined solely by the verb root type. Let's look at open roots first. Remember that there are two types of open roots: CVV and CVV^{h}, these being distinct in the repetitive imperfective mode. CVV roots have long high stems in the repetitive imperfective while CVV^{h} roots have long low stems. Example (271a-b) have a CVV root while (272a-b) have a CVV^{h} root. (Note that in (272a), the *CV́V Imp/Hort/Pot* that is part of the verb theme has been omitted here to save space).

(271a) *ka-s-.aa~ (na act)* 'for a plant to grow'
(271b) *yoo ksi.éik* 'it grows (regularly)'

(272a) *O-shu-ka-S-ø-jaa^{h}~ (ø act)* 'for S to instruct, show O'
(272b) *ashukajei<u>x</u>* 's/he instructs him/her (regularly)'

All closed roots have short high stems in the repetitive imperfective mode. Following is an example of each closed root type: CVVC, CV́VC, and CV́VC' respectively. (Note that in (275a) the *CV́C' Hort/Pot* that is part of the verb theme has been omitted here to save space).

(273a) *O-sha-S-ø-<u>x</u>eech~ (ø event)* 'for S to club, hit O on the head'
(273b) *asha<u>x</u>ích<u>x</u>* 's/he clubs it (regularly)'

(274a) *ku-ka-j-géet~ (ø event)* ‘for the sky to be dark’
(274b) *kukashgítx* ‘it gets dark (regularly)’

(275a) *O-ka-S-ø-xéel'~ (ø event)* ‘for S to bother, trouble O’
(275b) *akaxíl'x* ‘s/he bothers him/her (regularly)’

The exception to these stem variation patterns of course, is invariable verbs, which will have the same stem form throughout the paradigm. There are several examples in Table 46 above, including *kei ahées'ch* ‘s/he borrows it (regularly), *kei ashgóokch* ‘s/he learns (quickly) how to do it’, *yei asgáaxch* ‘s/he asks for it (regularly)’, and *yei axooxch* ‘s/he calls him/her (regularly)’, all of which have long high invariable stems. Note that there are four verb themes with invariable stems documented in the paradigms on the CD that have irregular stems in the repetitive imperfective mode. These are illustrated in Section 15.3.

Table 47 below provides an example repetitive form for each root type. Note that the –X in the table represents any suffix. As was discussed above, the repetitive suffix will be either *–x, -ch,* or *–k*. The negative repetitive imperfective was not regularly documented in this research, however according to the few negative repetitive imperfective forms I did document, and according to Leer (1991), it has the same stem form as the affirmative repetitive imperfective. The only difference between the affirmative and negative repetitive imperfective forms then, will be the negative particle *tlél* and, for first and third person subjects, the irrealis prefix *u-* (the irrealis prefix only occurs with first and third person subjects).

Table 47. Stem Variation in the Repetitive Imperfective

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́V-X a<u>x</u>éi<u>x</u> 'she eats it (regularly)' O-S-Ø-<u>x</u>aa~ (Ø act) 'for S to eat O'	CV́V-X yoo akayahéi<u>x</u>k 'he plants it (regularly)' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
CVV^{h}	CVV-X astei<u>x</u> 'he steams it (regularly)' O-S-s-taa^{h}~ (Ø act) 'for S to boil, steam O'	CVV-X tei<u>x</u> 'she sleeps (regularly)' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
CVVC	CV́C-X asxúk<u>x</u> 'she dries it (regularly)' O-S-s-xook~ (Ø act) 'for S to dry O'	CV́C-X yoo ayaxáshk 'he cuts it (regularly)' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
CV́VC	CV́C-X akachák<u>x</u> 'he packs it (regularly)' O-ka-S-Ø-cháak~ (Ø act; CV́C Hort/Pot) 'for S to pack O'	CV́C-X yei alshátch 'she holds it (regularly)' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
CV́VC'	CV́C'-X as.át'<u>x</u> 'she chills it (regularly)' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́C'-X yoo aya.ús'k 'he washes it (regularly)' O-S-Ø-.óos'~ (na act) 'for S to wash O'

12. Prohibitive

The prohibitive is the negative command form of the verb, and translates into English as 'Don't do it!' Example prohibitive forms are: *Líl ee<u>x</u>áa<u>k</u>!* 'Don't eat it!', and *Líl yi<u>x</u>áa<u>k</u>!* 'Don't you all eat it!' As with the imperative forms, there are some verbs that are semantically awkward in the prohibitive form, in which case '[does not occur]' is indicated in the prohibitive field in the paradigms on the CD.

Structurally, the prohibitive form is based on the negative imperfective, the negative repetitive imperfective, and/or the negative perfective forms. In other words, there are three varieties of prohibitive: the imperfective prohibitive, the repetitive imperfective prohibitive, and the perfective prohibitive. For some verbs, all three types of prohibitive exist, but for most, there is a preferred one among the three. It is not clear whether there is much of a semantic distinction between the three, but Leer (1991) has posited that the imperfective prohibitive and perfective prohibitive both mean 'don't do it' while the repetitive imperfective prohibitive means 'don't ever do it'. Active and stative verbs (which have basic imperfective forms) tend to use the imperfective prohibitive while eventive and motion verbs (which lack basic imperfective forms) use either (or both of) the perfective prohibitive and repetitive imperfective prohibitive.

Like all negative forms, the prohibitive requires a choice of negative particles: *líl, tlél/tléil*, or *hél* meaning 'not', 'don't' or 'no'. The choice of particle seems to be based on individual speaker preference and not regional dialect and therefore any of these are correct for any region. In this resource, *líl* is used with all prohibitive forms, simply for consistency. The prohibitive form is exactly like the corresponding negative imperfective, negative repetitive imperfective, or negative perfective form plus the addition of the prohibitive suffix *-(i)<u>k</u>* or *–(u)<u>k</u>*. The vowel *–i/-u* in the suffix is present only when the verb stem ends in a consonant. (The choice of the vowel is discussed a little later). When the stem ends in a vowel, the suffix is simply *–<u>k</u>*. As

can be seen in Examples (276a-b) below, verbs with a stem ending in a consonant such as: *-gwaal* take the suffix *–ik*. Examples (277a-b) show a verb stem ending in a vowel *–xá*, which takes the suffix *–k*. Note also that open verb stems (those ending in a vowel) with a short vowel (*a, e, i,* u) become long when the suffix *–k* is added. As you can see, the stem goes from *-xá* to *–xáak* when the prohibitive suffix is added. As a side note, in each set below (a) is the negative imperfective form and (b) is the imperfective prohibitive form.

(276a) *Tlél eegwaal.* 'You're not beating it.'
(276b) *Líl eegwaalík!* 'Don't beat it!'

(277a) *Tlél eexá.* 'You're not eating it.'
(277b) *Líl eexáak!* 'Don't eat it!'

Verb stems ending in aspirated consonants undergo a change when the prohibitive suffix is added. Specifically, the following aspirated consonants become unaspirated before the prohibitive suffix: *t --> d, tl --> dl, ts --> dz, ch --> j, k --> g, k --> g*. The change from an aspirated consonant to unaspirated between vowels is a natural phenomenon in speech and occurs in English all the time, as well as many other languages of the world. Let's look at a few examples to clarify. In Table 48 below, we see the verb stem *–shát*, ending in *t*, become *–shádik* in the prohibitive. The *t* on the verb stem becomes *d* before the prohibitive suffix *-ik*. Similarly, the verb stem *–xook* ending in *k* becomes *–xoogúk* in the prohibitive, the *k* becoming *g* when the prohibitive suffix is added. Finally, the verb stem *–x'aakw* ending in *kw,* becomes *–x'aagúk* in the prohibitive. Here the *k* becomes *g* in the prohibitive.

Table 48. Aspirated Consonants Become Unaspirated before Prohibitive Suffix

t --> d		
	Tlél ilashát.	'You're not holding it.'
	Líl ilashádi<u>k</u>!	'Don't hold it!'
k --> g		
	Tlél isaxook.	'You're not drying it.'
	Líl isaxoogú<u>k</u>!	'Don't dry it!'
<u>k</u> --> g		
	Tlél a ká<u>x</u> iseix'aa<u>k</u>w.	'You don't forget it.'
	Líl a ká<u>x</u> iseix'aa<u>g</u>ú<u>k</u>!	'Don't forget it!'

Notice also that the tone on the prohibitive suffix is always the opposite of the tone on the stem. If the stem has a low tone, the suffix takes a high tone. If the stem has a high tone, the suffix takes a low tone. Two examples in Table 48 above lead us to another topic. When is the prohibitive suffix –*i<u>k</u>* and when is it –*u<u>k</u>*? The rules governing the choice of vowel in the prohibitive suffix are the same as for the possessive suffix, described in detail in Dauenhauer et al (2010:23). They are as follows. The suffix will be –*i<u>k</u>* unless: 1) the stem ends in *w* preceded by a vowel (as in *líl isalagaawú<u>k</u>*! 'Don't be loud-voiced!'); 2) the stem ends in any form of *k* or *x* preceded by *oo* or *u* (as in *líl isaxoogú<u>k</u>!* 'Don't dry it'), or; 3) the stem ends in any form of *k* or *x* followed by *w* (as in *líl a ká<u>x</u> iseix'aa<u>g</u>ú<u>k</u>!* 'Don't forget it!'). Note that the *w* drops off when the suffix –*u<u>k</u>* is added in this final scenario. This phenomenon is called rounding spread, where a sound that requires protrusion (rounding) of the lips spreads this effect onto a neighboring sound. Also note that in the final two examples just given, the stems end in *k* and *<u>k</u>w* respectively (as illustrated by the negative perfective forms in Table 48 above). These aspirated consonants become unaspirated (*g* and *<u>g</u>* respectively) with the addition of the suffix, since they are

between two vowels. Stems falling into any of these three categories take the suffix –*u<u>k</u>*.

To summarize, the verb stem in the prohibitive is predictable, based on its partner form. If you know the second person negative imperfective, perfective, or repetitive imperfective form, it should be easy to construct the associated prohibitive form from there, simply by adding the prohibitive suffix with the appropriate vowel and tone. For this reason, the prohibitive is excluded from Tables 14 and 15 in Chapter 3, since the verb stem form is determined based on the partner modes. As a reminder, stem variation for the negative repetitive imperfective is the same as for the affirmative repetitive imperfective. Note that there are four verb themes with invariable stems documented in the present research that have irregular stem forms in the prohibitive. These are illusrated in Section 15.4.

13. Potential

Semantically, the potential mode in Tlingit has future tense reference, translating as 's/he might/could do it'. An example is *Gwál kwaakasiteen* 'I might see it' (Leer, 1991:387). Two sub-types of the potential mode were documented in *575+ Tlingit Verbs*: the potential attributive and the potential decessive. These will be the topic of discussion here.

13.1 Potential Attributive

The potential mode in Tlingit most often occurs in relative clause constructions (Leer, 1991:385). Using our example potential verb above, a very common construction is: *tlél aadé kwaakasiteeni yé (koostí)* 'there's no way I can see it' or 'I can't see it'. A word-for-word break down of this construction follows in (278):

(278)	*tlél*	*aadé*	*kwaakasiteeni*	*yé*	*(koostí)*
	no	way	I might/could see it	place	(is/exists)

In this construction, the negative particle *tlél* refers to the main verb of the sentence *koostí*, which is in the negative form, and means 'doesn't exist'. The potential attributive form *kwaakasiteeni* is in a relative (dependent) clause. Although *koostí* is the main verb, it is almost never actually stated, but is understood, which is why it is in parentheses above.

The potential attributive mode in Tlingit is characterized by the following: 1) irrealis prefix *u-*; 2) the verb's regular conjugation prefix *(Ø-, na-, ga-, or ga-)*; 3) aspect prefix *ga-*; 4) the +I form of the classifier (*si-, dzi-, shi-, ji-, li-, dli-, ya-,* or *di-,* and; 5) the attributive suffix *–i/-u*. The choice of vowel follows the same rules as the prohibitive and possessive suffixes (see Chapter 12 of this dissertation and Dauenhauer et al (2010)). The verb stem in the potential is the same as in the hortative for a given verb.

Note that the realis (affirmative) potential and irrealis (negative) potential forms are identical, both requiring the irrealis prefix –*u* and having identical verb stem forms. (279a-b) are examples from Leer (1991:387). *Gwál* translates as 'maybe' and is not required by the verb, but is a particle that is often used by speakers along with the potential.

(279a)	*Gwál <u>k</u>waa<u>k</u>asiteen*	'I might see it'	Realis Potential
(279b)	*Gwál tléil <u>k</u>waa<u>k</u>asiteen*	'I might not see it'	Irrealis Potential

Because the potential mode requires the verb's regular conjugation prefix along with the aspect prefix *<u>g</u>a-*, and the irrealis prefix *u-*, a variety of contractions take place, making the prefix combination charts especially handy for this form. It will be helpful to discuss each of the four conjugation prefixes separately. Let's look at some examples, beginning with *Ø-* conjugation verbs.

13.1.1 *Ø* Conjugation Verbs

Below each example, a schematic representation of each verbal component is given for comparison with the contracted, spoken form. Let's walk through Example (280) together. The potential attributive form *oo<u>x</u>litséegi* is made up of each of the parts given in parentheses below the example. These are: 1) object prefix *a-* 'it'; 2) irrealis prefix *u-*; 3) this verb's conjugation prefix, which is *Ø-*; 4) aspect prefix *<u>g</u>a-* which is required by the potential mode; 5) classifier *li-*; 6) verb stem *–tséek* 'barbecue' and; 7) attributive suffix *–i*, which makes this a dependent (as opposed to main) verb. A couple of contractions have taken place to produce the spoken form of the verb. First, the object prefix *a-* contracts with the irrealis prefix *u-*, producing *oo-*. Second, due to the '3 open syllable rule' in Tlingit, which drops the vowel of the middle of 3 open syllables in a row, the vowel drops out of the aspect prefix *<u>g</u>a-*. This leaves a *<u>g</u>-* next to the classifier *li-*, an unacceptable consonant cluster in Tlingit. The *<u>g</u>-*

therefore becomes *x̲-*, thus producing *ooxli-*. Note that this change from *g̲-* to *x̲-* occurs everywhere where *g̲-* directly precedes any classifier beginning with a consonant. Examples (280-282) further illustrate what we've discussed so far.

(280) *tlél aadé ooxlitséegi yé* 'no way can s/he barbecue it'
(a- + u- + Ø- + g̲a- + li- + -tséek + -i)

(281) *tlél aadé ooxsi.eeyi yé* 'no way can s/he cook it'
(a- + u- + Ø- + g̲a- + si- + -.ee + -i)

(282) *tlél aadé ooxdinaayi yé* 'no way can s/he drink it'
(a- + u- + Ø- + g̲a- + di- + -naa + -i)

Verbs with the *ya-* classifier undergo different contractions. Here, the aspect prefix *g̲a-* doesn't drop its vowel and the consonant *g̲* remains unchanged. Example (283) below illustrates the contraction of the aspect prefix *g̲a-* with the classifier *ya-*, which results in *g̲aa-*.

(283) *tlél aadé oogaa.aaxi yé* 'no way can s/he hear it'
(a- + u- + Ø- + g̲a- + ya- + -.aax̲ + -i)

In (284) below, the verb has the thematic prefix *sha-*. Following this, we see the contraction of the irrealis prefix *u-*, the aspect prefix *g̲a-*, and the classifier *ya-*, all together producing *g̲waa-*. The same contraction takes place in (285), except here, there is the object prefix *a-* followed by the thematic prefix *ka-*, which drops its vowel since it's the middle of three open syllables in a row.

(284) *tlél aadé shag̲waaheegi yé* 'no way can he/she/it get full'
(sha- + u- + Ø- + g̲a- + ya- + -heek + -i)

(285) *tlél aadé akg̲waachuxu yé* 'no way can s/he knead it'
(a- + ka- + u- + Ø- + g̲a- + ya- + -chux + -i)

Example (286) below has no object prefix, and here, the irrealis prefix contracts with the thematic prefix *ka-,* producing *koo-*. Here again, the *g̲a-* aspect prefix has dropped its vowel and become *x̲-* because it's the middle of three open syllables and is followed by the classifier *dzi-*.

(286) *tlél aadé koox̲dzinéiyi yé* 'no way can s/he knit'
(ka- + u- + Ø- + g̲a- + dzi- + -néi + -i)

As seen by the above examples, the irrealis prefix *u-* may surface in a variety of possible locations in the prefix string, based on which other prefixes are present, and with which it contracts. For example, the irrealis prefix *u-* may contract with the following prefixes: 1) at the beginning of the word with the object prefix *a-*, producing *oo-*, as seen in examples (280-283) above; 2) with a thematic prefix such as *ka-*, producing *koo-* as seen in (286) or; 3) with the aspect prefix *g̲a-*, in which case it surfaces as rounding on the consonant, producing *–g̲w-* or *-x̲w-* depending on the following classifier. Examples (284) and (285) above illustrate this option. For some verbs, this results in alternate pronunciations of the potential attributive form. For example, revisiting (283) above, either of the following would be acceptable: *tlél aadé oog̲aa.aax̲i yé* OR *tlél aadé ag̲waa.aax̲i yé*. Most fluent speakers would accept either of these forms. In this resource, most of the time only one of the options is documented for each verb, with the understanding that either would be acceptable (as illustrated in the prefix combination charts in the appendices).

For a complete table of contractions involving *Ø* conjugation verbs in the potential mode, see the *g̲a-* prefix combination chart in Appendix G.

Next, we'll look at verbs that use the *na-*, *ga-*, or *g̲a-* conjugation prefixes. The addition of these conjugation prefixes to the mix makes for a variety of different resulting prefix combinations.

13.1.2 *Na* Conjugation Verbs

The following are examples of *na* conjugation verbs in the potential attributive form. Compare (287), (288) and (289) below for another example of the irrealis prefix contracting with alternate prefixes (contracting with the object prefix *a-* in (287) and (288), producing *oo-*, and with the aspect prefix *g̲a-* in (289), resulting in *x̲w-*).

(287) *tlél aadé oong̲aas'óowu yé* 'no way can s/he chop it'
(a- + u- + na- + g̲a- + ya- + -s'óow + -u)

(288) *tlél aadé oonax̲lixaashi yé* 'no way can s/he cut it'
(a- + u- + na- + g̲a- + li- + -xaash + -i)

(289) *tlél aadé anax̲wdzit'eix̲i yé* 'no way can s/he troll'
(a- + u- + na- + g̲a- + dzi- + -t'eix̲ + -i)

For a complete table of contractions involving *na* conjugation verbs in the potential mode, see the *na-g̲a-* prefix combination chart in Appendix H.

13.1.3 *Ga* Conjugation Verbs

The following are example potential attributive forms for *ga* conjugation verbs. Where the classifier is *ya-* the prefix combination will be *gug̲aa-* (coming from *u-ga-g̲a-ya-*) as in (290) below. However, if the verb has an object prefix *a-*, or a thematic prefix (such as *ka-*), then the contraction changes. The vowel drops out of *g̲a-* because of the "3 open syllable" rule, and the *g-*, being next to *g̲a-* becomes *k-*. Thus, *a-u-ga-g̲a-ya-* becomes *akg̲waa-*, as in (291) below.

(290) *tlél aadé at gu<u>g</u>aasheeyi yé* 'no way can s/he sing'
(u- + ga- + <u>g</u>a- + ya- + -shee + -i)

(291) *tlél aadé ak<u>g</u>waasheeyi yé* 'no way can s/he sing it'
(a- + u- + ga- + <u>g</u>a- + ya- + -shee + -i)

For verbs with classifiers other than *ya-*, the prefix combination will render *gu<u>x</u>-(clf)-*. This is a result of the aspect prefix *<u>g</u>a-* dropping its vowel and becoming *<u>x</u>-* next to a consonant-vowel classifier (such as *li-, si-, shi-,* etc.). For example, see (292) below. Example (293) shows that the contraction will be the same in the presence of a thematic prefix (*<u>x</u>'a-* in this case).

(292) *tlél aadé gu<u>x</u>lidzéeyi yé* 'no way can it be difficult'
(u- + ga- + <u>g</u>a- + li- + -dzee + -i)

(293) *tlél aadé <u>x</u>'agu<u>x</u>litseeni yé* 'no way can it be expensive'
(<u>x</u>'a- + u- + ga- + <u>g</u>a- + li- + -tseen + -i)

For a complete table of contractions involving *ga* conjugation verbs in the potential mode, see the *ga-<u>g</u>a-* prefix combination chart in Appendix I.

13.1.4 *<u>G</u>a* Conjugation Verbs

When the conjugation prefix *<u>g</u>a-* is combined with the aspect prefix *<u>g</u>a-*, the first *<u>g</u>a-* gets a long vowel: *<u>g</u>aa-*. What happens to the second *<u>g</u>a-* depends on which classifier follows. If it's *ya-*, then the result is: *<u>g</u>aa<u>g</u>aa-* (*<u>g</u>a- + <u>g</u>a- + ya-*). Add the irrealis prefix *u-* and you get *<u>g</u>aa<u>g</u>waa-*. Example (294) below illustrates this combination, with the additional object prefix *a-*.

(294) *tlél aadé agaagwaaxooxu yé* 'no way can s/he summon him'
(a- + u- + ga- + ga- + ya- + -xoox + -u)

If there's a thematic prefix present (such as *ka-*), the irrealis prefix *u-* usually contracts with it, producing *koo-*. For example, in (295) below we see the string: *a-ka-u-ga-ga-ya-* contract to produce: *akoogaagaa*.

(295) *tlél aadé akoogaagaas'éil'i yé* 'no way can s/he tear it'
(a- + ka- + u- + ga- + ga- + ya- + -s'éil' + -i)

If the prefix string includes a classifier other than *ya-*, the resulting combination is *gaaxw-(clf)-*. Here, the second *ga-* becomes *x-*, and the *x-* becomes rounded (*xw-*) because of the irrealis prefix *u-*. Examples (296) and (297) below illustrate this combination.

(296) *tlél aadé gaaxwdixéet'i yé* 'no way can s/he sweep'
(u- + ga- + ga- + di- + -xéet' + -i)

(297) *tlél aadé agaaxwdzigáaxi yé* 'no way can s/he ask for it'
(a- + u- + ga- + ga- + dzi- + -gáax+ -i)

Again, if there's a thematic prefix present, the tendency is for the irrealis prefix to contract with it. In (298) below, the string *a-ka-u-ga-ga-si-* becomes *akoogaaxsi-*.

(298) *tlél aadé akoogaaxsikeiyi yé* 'no way can s/he untangle it'
(a- + ka- + u- + ga- + ga- + si- + -kei + -i)

For a complete table of contractions involving *ga* conjugation verbs in the potential mode, see the *ga-ga-* prefix combination chart in Appendix J.

13.2 Potential Decessive

The potential decessive form translates as 's/he would have done it (but didn't)'. The potential decessive is usually used as the main verb in conjunction with a dependent clause. Here's an example: Xwasateeni kát kwaaka.éex'in. 'If I had seen him, I would have invited him.' Here, the potential decessive form kwaaka.éex'in 'I would have invited him' is the main verb in the sentence, while xwasateeni 'if I had seen him' is in the dependent clause.

Structurally, the potential decessive is similar to the potential attributive with two differences: the –I form of the classifier is used and the decessive suffix *–in/-un* is used instead of the attributive suffix. Note that the decessive suffix takes the opposite tone of the verb stem. The potential decessive then, requires the following: 1) irrealis prefix *u-*; 2) the verb's conjugation prefix (*Ø-, na-, ga-,* or *ga-*); 3) the aspect prefix *ga-*; 4) the –I form of the classifier (*sa-, s-, sha-, sh-, la-, l-, Ø-,* or *da-*) and; 5) the decessive suffix *–in/-un*. The choice of vowel in the decessive suffix follows the same rules for the attributive suffix, prohibitive suffix, and the possessive suffix (see Chapter 12 of this dissertation and Dauenhauer et al (2010)). The verb stem in the potential decessive is the same as in the potential attributive.

As mentioned above, the shape of the verb stem is not predictable in the potential however, for a given verb, it will be the same in the potential attributive and potential decessive forms. Compare the potential attributive form in (299a) below with the potential decessive form in (299b).

(299a) *tlél aadé ooxsi.eeyi yé* 's/he cook it'
(299b) *ooxsa.eeyín* 's/he would have cooked it'

For the most part, the prefix combinations will be the same in the potential decessive as were discussed for the potential attributive. The main difference will be

for verbs that use the classifier pair *ya-/Ø-*. Because the potential attributive form requires the +I classifier (*ya-*) while the potential decessive form requires the –I classifier (*Ø-*), the decessive forms won't have the long vowel on the aspect prefix *ga-* as seen in the attributive forms. For example, in (300a) the aspect prefix *ga-* combines with the +I form of the classifier *ya-*, producing *gaa-*. In (300b), the –I classifier *Ø-* is used, as required by the decessive form, and so the aspect prefix remains unchanged, *ga-*. As a side note, 'hear it' is a *Ø* conjugation verb.

(300a) *tlél aadé oogaa.aaxi yé* 'no way can s/he hear it'
(a- + u- + Ø- + ga- + ya- + -.aax + -i)
(300b) *oogaa.aaxín* 's/he would have heard it'
(a- + u- + Ø- + ga- + Ø- + -.aax + -ín)

This next pair of examples contains a *na* conjugation verb, and illustrates the same point. The attributive form in (301a) has a long vowel on the aspect prefix *gaa-* due to the contraction with the classifier *ya-*, while the decessive form in (301b) has a short vowel *ga-* because the classifier is *Ø-*.

(301a) *tlél aadé oongaal'eixi yé* 'no way can s/he dance'
(a- + u- + na- + ga- + ya- + -l'eix + -i)
(301b) *oongal'eixín* 's/he would have danced'
(a- + u- + na- + ga- + Ø- + -l'eix + -in)

Since all other relevant prefix combinations are discussed above for the potential attributive form, there will be no surprises in the example potential decessive forms given below. Examples will be given for each of the conjugation prefixes, beginning with *Ø-*.

13.2.1 *Ø* Conjugation Verbs

In (302) the irrealis prefix *u-* has contracted with the aspect prefix *ga-*, producing *gwa-*. In (303) however, the irrealis prefix has contracted with the object prefix *a-*, resulting in *oo-*. The aspect prefix *ga-* drops its vowel and becomes *x-* next to the classifier *da-*. The result is *ooxda-*.

(302) *shagwaheegín* 'he/she/it would have gotten full'
(sha- + u- + Ø- + ga- + Ø- + -heek + -ín)

(303) *ooxdanaayín* 's/he would have drunk it'
(a- + u- + Ø- + ga- + da- + -naa + -in)

13.2.2 *Na* Conjugation Verbs

Examples (304) and (305) below have the *na-* conjugation prefix. In both, the irrealis prefix *u-* has contracted with the object prefix *a-*, producing *oo-.* The difference between the two prefix strings is the classifier, which in (304) is *Ø-*, and in (305) is *la-*. In (304), the *na-* drops its vowel and the result is *oonga-*. In (305) however, as we saw in several examples above, the *ga-* aspect prefix has dropped its vowel and, being next to a consonant-initial classifier (*la-*), has become *x-*. The result here is *oonaxla-*. Notice also that the suffix vowel takes the opposite tone of the verb stem.

(304) *oongas'óowun* 's/he would have chopped it'
(a- + u- + na- + ga- + Ø- + -s'óow + -un)

(305) *oonaxlaxaashín* 's/he would have cut it'
(a- + u- + na- + ga- + la- + -xaash + -in)

13.2.3 *Ga* Conjugation Verbs

As we saw in the *ga* conjugation potential attributive forms above, the preference is for the irrealis prefix *u-* to contract with the conjugation prefix *ga-*, producing *gu-*. In (306) below, this is the only contraction that has taken place, since the classifier is *Ø-*. In (307), the aspect prefix *g̲a-* has become *x̲-* before the classifier *la-*, producing *gux̲la-*.

(306) *gug̲ag̲aax̲ín* 's/he would have cried'
(u- + ga- + g̲a- + Ø- + -g̲aax̲ + -ín)

(307) *gux̲ladzéeyin* 'it would have been difficult'
(u- + ga- + g̲a- + la- + -dzée + -in)

13.2.4 *G̲a* Conjugation Verbs

Verbs that use the conjugation marker *g̲a-* are the most complex in terms of the prefix combinations. Combining *g̲a-* and *g̲a-* always results in a long vowel on the first *g̲a,* becoming *g̲aag̲a-*. The classifier that follows these determines the rest. In (308) the classifier is *Ø-* and the result is *ag̲aag̲wa-*. Note here that the irrealis prefix has contracted with the second *g̲a-*, producing *g̲wa-*. An alternate pronunciation for this form is *oog̲aag̲ax̲oox̲ún*, where the irrealis prefix *u-* contracts with the object prefix *a-* instead, producing *oo-* (with no rounding on the aspect prefix *g̲a-* this time). In (309) we see a similar situation, except here the classifier is *la-*, and the aspect prefix *g̲a-* becomes *x̲-*, resulting all together in *ag̲aax̲wla-*. Again, an alternate pronunciation would be *oog̲aax̲lag̲oowún*, where the irrealis prefix contracts with the object prefix at the beginning of the word instead of the aspect prefix in the middle. Either form is acceptable to most speakers.

(308) *ag̲aag̲wax̲oox̲ún* 's/he would have summoned him'
(a- + u- + g̲a- + g̲a- + Ø- + -x̲oox̲ + -ún)

(309) *agaaxwlagoowún* 's/he would have wiped it'
(a- + u- + ga- + ga- + la- + -goo + -ún)

Finally, in (310) below we have the added element of the thematic prefix *ka-*. In this example, the irrealis prefix has contracted with *ka-*, producing *koo-.* When the thematic prefix *ka-* specifically is present, the preference tends to be for the irrealis prefix to contract with *ka-*, as opposed to the object prefix *a-* or the aspect prefix *ga-*.

(310) *akoogaaxsakeiyín* 's/he would have untangled it'
(a- + ka- + u- + ga- + ga- + sa- + -kei + -ín)

13.3 Stem Variation in the Potential

As was noted in Chapter 10, the potential and hortative modes share the same verb stem form. For this reason, the details on verb stem variation will not be repeated here. Table 49 below summarizes the verb stem patterns in the potential, giving an example for each basic stem shape. Note that the examples here are given in the potential mode (and not the potential attributive or potential decessive) for simplicity.

Table 49. Stem Variation in the Potential

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CVV agwaaxaa ‘she might eat it’ O-S-Ø-xaa~ (Ø act) ‘for S to eat O’	CVV akoongaahaa ‘he might plant it’ O-ka-S- Ø-haa~ (na act) ‘for S to plant O’
	CV́V gaduwasháa ‘he might get married’ O-du-Ø-shaa~ (Ø event; CV́V Imp/Hort/Pot) ‘for O to get married’	
CVV^{h}	CVV ooxsitaa ‘he might steam it’ O-S-s-taa^{h}~ (Ø act) ‘for S to boil, steam O’	CVV ungaataa ‘she might sleep’ S-Ø-taa^{h}~ (na act) ‘for (singular) S to sleep’
	CV́V ooxsikóo ‘she might know it’ O-S-s-koo^{h}~ (Ø event; CV́V Imp/Hort/Pot) ‘for S to know O’	
CVVC	CVVC uxsixook ‘she might dry it’ O-S-s-xook~ (Ø act) ‘for S to dry O’	CVVC oongaaxaash ‘he might cut it’ O-S-Ø-xaash~ (na act) ‘for S to cut O with knife’
	CV́C ooxlitsík ‘he might bbq it’ O-S-l-tseek~ (Ø act; CV́C Hort/Pot) ‘for S to broil O slowly’	
CV́VC	CV́VC uxsiwáat ‘he might raise her’ O-S-s-wáat~ (Ø act) ‘for S to raise O’	CV́VC agaaxwlisháat ‘she might hold it’ O-S-l-sháat~ (ga act) ‘for S to hold, retain O’
	CV́C ookgaachák ‘she might pack it’ O-ka-S-Ø-cháak~ (Ø act; CV́C Hort/Pot) ‘for S to pack O’	
CV́VC’	CV́VC’ ooxsi.áat’ ‘she might chill it’ O-S-s-.áat’~ (Ø act) ‘for S to make O cold’	CV́VC’ oongaa.óos’ ‘he might wash it’ O-S-Ø-.óos’~ (na act) ‘for S to wash O’
	CV́C’ oogaaxás’ ‘he might scrape it’ O-S-Ø-xáas’~ (Ø act; CV́C’ Hort/Pot) ‘for S to scrape O’	

14. Conditional

The Tlingit conditional translates into English as 'if' or 'when (in the future) s/he does it'. The following is an example conditional form taken from an audio recording of George Davis and Anita Lafferty, two elders conversing in Tlingit. *Ch'a wáa sá haa naneiní* 'if anything happens to us' (Davis & Lafferty, 2009:27:58). Here, the verb *naneiní* 'if it happens' is in the conditional form. Another example taken from Edwards (2009b) is *ganúkni du x'éix at gaxtootée.* 'When he sits down, we'll serve him.' The conditional form in this sentence is *ganúkni* 'when he sits down'.

The conditional form in Tlingit is characterized by having the verb's conjugation prefix (*Ø-, na-, ga-, or ga-*), the *–I* form of the classifier, the *n-stem*, and the suffix *–i*.

14.1 The *n-stem*

As stated above, verbs in the conditional form have what is called the "*n-stem"* (Leer 1991). The *n-stem* is the addition of *–n* to the end of the verb. Depending on whether the stem is open or closed, the *n-stem* differs with respect to vowel length.

14.1.1 Closed Stems

Let's consider (variable) closed stems first. Verbs that end in a consonant have short, high vowels in the *n-stem*. Part (a) of the following examples are given in the imperfective, and Part (b) in the conditional, for comparison. In (311a), the imperfective stem is long and high *(-k'éet')* and in (311b) the conditional *(n-stem)* is short and high *(-k'ít'n)*. The next two sets of examples follow the same pattern, where the imperfective stem is long *(-ch'áak'w* and *-.éen* respectively), and the conditional stem is short *(-ch'ák'wn* and *-.ínn* respectively). This is a very predictable pattern in Tlingit. Closed stems will have short, high vowels in the *n-stem*, regardless of conjugation prefix.

(311a) *kuk'éet'* 's/he is picking berries'
(311b) *kuk'ít'ni* 'if/when s/he picks berries'

(312a) *akach'áak'w* 's/he is carving it'
(312b) *akach'ák'wni* 'if/when s/he carves it'

(313a) *a.éen* 's/he is picking them'
(313b) *a.ínni* 'if/when s/he picks them'

Note as shown in the final example above *(a.ínni)* that a verb ending in –*n* ends up with a double –*nn* in the conditional. The –*n* is geminated (lengthened), pronounced at the end of the first syllable and the beginning of the second syllable.

The exception to the rule "closed verb stems will have short, high vowels in the *n-stem*", of course, are invariable stems (those which remain the same no matter the verb mode). Here are a few examples. Again, the imperfective form is given first for comparison with the conditional form.

(314a) *yanéekw* 's/he is sick, hurt'
(314b) *ganéekwni* 'if/when she is sick, hurt'

(315a) *ashigóok* 's/he knows how to do it'
(315b) *agashgóokni* 'if/when s/he learns how to do it'

In the above two examples, you can see that the vowel length in the verb stem does not change from one form to the next *(-néekw/-néekwn* and *–góok/góokn*). These are verbs with invariable stems, and in this case, both are always long and high. As a second language learner, it is very helpful to learn which verbs have invariable stems. These tend to be *ga* conjugation, stative verbs (Leer, 1991:254). Two verb

themes with invariable stems have been documented in the present research that have irregular stem forms in the conditional mode. These are illustrated in Section 15.5.

14.1.2 Open Stems

Now let's consider open stems. As was illustrated in Chapter 8 for the progressive imperfective, verbs with open roots have long, high vowels in the *n-stem*. Part (a) of the example sets below are given in the imperfective and Part (b) in the conditional. Note that in these three example sets, in the imperfective form, the verbs have long, low vowel
(-tee); short, high vowel *(-shí)*, and; long, high vowel *(-géi)* respectively. In the conditional form however, all have long, high vowels in the *n- stem (-téen, -shéen, -géin)*.

(316a) *yéi yatee* 'that's the way he/she/it is'
(316b) *yéi natéeni* 'if/when he/she/it is that way'

(317a) *at shí* 's/he is singing'
(317b) *at shéeni* 'if/when s/he sings'

(318a) *kayagéi* 'it's big'
(318b) *kanagéini* 'if/when it's big'

As was discussed in Chapter 8 for the progressive imperfective, stems ending in *–aa* or *–oo* undergo apophony, becoming *–éin* in the *–n stem*. In the first set of examples below (319a-b), *-xa* becomes *–xéin* and in the second (320a-b), *-t'áa* becomes *–t'éin*.

(319a) *at xá* 's/he is eating'
(319b) *at xéini* 'if/when s/he eats'

(320a) *kuyat'áa* 'the weather is hot'
(320b) *kut'éini* 'if/when the weather is hot'

The next two sets of examples illustrate verbs with stems ending in *–oo.* The first, (321a-b) is as we saw above, the stem *-.óo* becomes *-éin* in the conditional. In (322a-b) however, there is rounding on the stem consonant, by way of *–w* , where *–góo* becomes *–gwéin*. This is a regular pattern in Tlingit where a consonant which has a rounded counterpart (*k/kw, x'/x'w, g/gw*, etc.) followed by a round vowel (*-oo, -u*) becomes rounded in the *n-stem*. Think of the *w* as a remnant of the stem which was once round *(–oo)* but becomes unround *–éin* in the *n-stem*. For a reminder of which consonants have rounded counterparts, see Table 1 in Chapter 1.

(321a) *áa kuya.óo* 's/he lives there'
(321b) *áa kuna.éini* 'if/when s/he lives there'

(322a) *k'asigóo* 'it's fun'
(322b) *k'aksagwéini* 'if/when it's fun'

Below are two more examples of rounding of the stem consonant. In (323a-b), the verb stem is *–x'oo*, becoming *–x'wéin* in the conditional form. The consonant *x'* is followed by a rounded vowel *(-oo)* (requiring a protrusion, or rounding of the lips) and so the consonant preserves the rounding of the vowel (by way of *w*) when the stem vowel becomes *ei* in the *n-stem*. Likewise, in (324a-b) *-koo* becomes *–kwéin* in the conditional. This only takes place for consonants which have rounded counterparts in the language.

(323a) *át akawsix'óo* 's/he nailed it on it'
(323b) *át aksax'wéini* 'if/when s/he nails it on it'

(324a) *awsikóo* 's/he knows it'

(324b) *askwéini* 'if/when s/he knows it'

Table 50 below summarizes verb stem variation in the conditional mode, giving an example for each root type. Note that what counts in the conditional mode is simply whether the root is open or closed.

Table 50. Stem Variation in the Conditional

Basic Stem Shape ↓	**Ø**	**na, ga, ga**
CVV	CV́Vni axéini 'if/when he eats it' O-S-Ø-xaa~ (Ø act) 'for S to eat O'	CV́Vni akanahéini 'if/when she plants it' O-ka-S- Ø-haa~ (na act) 'for S to plant O'
CVV^{h}	CV́Vni askwéini 'if/when she knows it' O-S-s-koo^{h}~ (Ø event; CV́V Imp/Hort/Pot) 'for S to know O'	CV́Vni natéini 'if/when he sleeps' S-Ø-taa^{h}~ (na act) 'for (singular) S to sleep'
CVVC	CV́Cni asxúkni 'if/when he dries it' O-S-s-xook~ (Ø act) 'for S to dry O'	CV́Cni anaxáshni 'if/when she cuts it' O-S-Ø-xaash~ (na act) 'for S to cut O with knife'
CV́VC	CV́Cni aswátni 'if/when she raises him' O-S-s-wáat~ (Ø act) 'for S to raise O'	CV́Cni agalshátni 'if/when he holds it' O-S-l-sháat~ (ga act) 'for S to hold, retain O'
CV́VC'	CV́C'ni as.át'ni 'if/when he chills it' O-S-s-.áat'~ (Ø act) 'for S to make O cold'	CV́C'ni ana.ús'ni 'if/when she washes it' O-S-Ø-.óos'~ (na act) 'for S to wash O'

Having summarized the *n-stem*, which is one of the characteristics of the conditional form in Tlingit, we'll now move on to the other properties: the conjugation prefix,

the *-I* form of the classifier, and the suffix *–i*, by looking at some examples, beginning with *Ø* conjugation verbs.

14.2 Ø Conjugation Verbs

Part (a) of each example set below is given in the imperative form, Part (b) in the imperfective, Part (c) in the perfective, and Part (d) in the conditional, for comparison. We know that the imperative form requires the verb's conjugation prefix, and it serves to illustrate that these are all *Ø* conjugation verbs. The imperfective form illustrates that these are verbs with variable stems. The perfective shows us the *+I* classifier form, contrasting with the *–I* form found in the conditional. Note the conditional form in each set: *asníx'ni*, *akachákni,* and *dak̲éini*. Since these are all *Ø* conjugation verbs, we see no conjugation prefix. The classifier in each is *–I (s-, Ø-, and da-* respectively*)*. They all have the *n-stem*, which for (325d) and (326d), which are closed roots, means short, high vowel followed by *–n*, and for (327d), which is an open root, means a long high vowel followed by *–n*, (and because the stem is *–aa*, it becomes *–éin*, as discussed above). Finally, each has the suffix *–i*, which is required by the conditional form. Note that this suffix will take the opposite tone of that of the verb stem. Because all variable stems will have a high tone in the conditional, the suffix will be low. However, for stems which are invariable **and** low tone, this suffix will take a high tone. We will see an example of this in Section 14.4 below.

(325a)	*Isníx'!*	'Smell it!'
(325b)	*asinéex'*	's/he smells it'
(325c)	*awsiníx'*	's/he smelled it'
(325d)	*asníx'ni*	'if/when s/he smells it'

(326a) *Kachák!* 'Pack it!'
(326b) *akacháak* 's/he is packing it'
(326c) *akaawachák* 's/he packed it'
(326d) *akachákni* 'if/when s/he packs it'

(327a) *Idaḵá!* 'Sew!'
(327b) *daḵéis'* 's/he is sewing'
(327c) *wudiḵáa* 's/he sewed'
(327d) *daḵéini* 'if/when s/he sews'

14.3 *Na* Conjugation Verbs

The examples in this section are all *na* conjugation verbs, as can be seen by looking at the imperative forms and the conditional forms, both of which require the verb's conjugation prefix. The perfective form is also given to show stem variation where it occurs. Examples (328a-c) show a verb with an invariable stem. The stem is long and high *(-wóos')* no matter the verb tense. Notice the long and high stem in the conditional form, where we would expect a short high vowel in variable stems. In the perfective, the classifier is *ya- (+I)* and in the conditional it's *Ø-* (the *–I* counterpart). The *n-stem* and suffix *–i* are the main clues that the last form is a conditional.

(328a) *X'anawóos'!* 'Ask him/her!'
(328b) *ax'eiwawóos'* 's/he asked him/her'
(328c) *ax'anawóos'ni* 'if/when s/he asks him/her'

The following Example set (329) illustrates a verb with an open stem *(-.áa)* and as expected, the stem is *–éin* in the conditional *(akanas.éini)*. Note also the presence of the *na-* conjugation prefix, the *–I* classifier *(s-)* and the suffix *–i*.

(329a) *Kanas.á!* 'Grow it!'
(329b) *akawsi.aa* 's/he grew it'
(329c) *akanas.éini* 'if/when s/he grows it'

Example set (330) shows another open stem verb *(-shee).* Here, the *n-stem* is *–shéen*. Remember that the quality of the vowel only changes in the *n-stem* for those ending in *–oo* or *–aa*. Again, the conditional form has the *na-* conjugation prefix, the *–I* classifier *(Ø-)*, and the suffix *–i*.

(330a) *Aagáa kunashí!* 'Look for it!'
(330b) *aagáa koowashee* 's/he looked for it'
(330c) *aagáa kunashéeni* 'if/when s/he looks for it'

14.4 *Ga* Conjugation Verbs

Example sets (331) and (332) are both *ga* conjugation verbs. The first, (331) 'borrow it' offers no surprises. It is a verb with a closed stem *(-hées')* and a variable stem, having the short, high vowel in the conditional form as expected. In (332), the verb 'be noisy' is our first example of a verb with an invariable stem with a low tone. Note in the conditional form *gala.oosní*, the suffix *–í* has a high tone. Remember that the suffix takes the opposite tone of the verb stem.

(331a) *Gahées'!* 'Borrow it!'
(331b) *aawahées'* 's/he borrowed it'
(331c) *agahís'ni* 'if/when s/he borrows it'

(332a) *Ikla.oos!* 'Be noisy!'
(332b) *wuli.oos* 's/he was noisy'
(332c) *gala.oosní* 'if/when s/he is noisy'

14.5 *G̲a* Conjugation Verbs

The final two sets of examples are *g̲a* conjugation verbs. In (333) 'hold it', we see in the conditional form *ag̲alshátni* the *g̲a-* conjugation prefix, the *–I* classifier *(l-)*, the *n-stem (-shátn)*, and the suffix *–i.* In (334), the verb 'ask for it' has an invariable stem which is long and high *(-g̲áax̲)*, and so the conditional form too has a long and high vowel in the *n-stem (-g̲áax̲n)*. Again, we find in the conditional form the *–I* classifier *(s-)*, the conjugation prefix *(g̲a-)*, and the suffix *–i,* which is low because the stem has a high tone.

(333a)	*g̲alsháat!*	'Hold it!'
(333b)	*awlisháat*	's/he held it'
(333c)	*ag̲alshátni*	'if/when s/he holds it'

(334a)	*g̲eesg̲áax̲!*	'Ask for it!'
(334b)	*awdzig̲áax̲*	's/he asked for it'
(334c)	*ag̲asg̲áax̲ni*	'if/when s/he asks for it'

To summarize, the conditional is one of the more straightforward forms to learn in Tlingit because the verb stem is based solely on whether the root is open or closed. If you know which conjugation category a verb belongs to and whether the verb stem is variable or not, you can easily create the conditional form by using the verb's conjugation prefix, the *–I* form of the classifier, the *n-stem*, and the suffix *–i.* To get this information about each verb, it helps to think of the forms of that verb that you already know and see if you can glean from them the necessary information such as the conjugation prefix and the classifier. This information is also given in the theme at the top of each verb entry on the CD.

15. Invariable Verb Themes with Irregular Forms

There are fifteen verb themes in my database that have invariable stems except for one or two modes. In the modes in which they are irregular (variable), they follow the stem variation patterns expected of their variable counterparts, based on their basic stem shape and conjugation prefix. The themes in question will be listed below along with the modes in which they are irregular for reference, followed by a discussion of the irregularities by mode.

The irregular forms discussed in this chapter were documented in consultation with a group of native speakers. In order to confirm these unexpected forms, they were revisited on different occasions and with different individuals, always with the same result. With the exception of the stem *–k'éi*, I have not seen reference to the irregularities illustrated here elsewhere in the literature.

(335) *O-ø-k'éi (ga state)* neg. imperf., prohib.
'for O to be good, fine, pretty'

(336) *N toowú ø-k'éi (ga state)* neg. imperf.
'for N to be glad, happy, feel fine'

(337) *tlél O-sh-k'éi (ga state)* neg. imperf.
'for O to be bad, evil, no good'

(338) *N toowú s-góo (ga state)* neg. imperf.
'for N to be happy, glad'

(339) *tlél O-tu-sh-góo (ga state)* neg. imperf.
'for O to be unhappy, lonesome'

(340) *N tuwáa S-s-góo (ga state)* neg. imperf.
'for N to want, like, desire S'

(341) *s-.áat' (Ø state)* progr. imperf.
'for an inanimate object to be cold'

(342)	*a-S-d-s-t'eix (na act)*	progr. imperf.
	'for S to fish with hooks, troll'	
(343)	*a-S-ø-l'eix (na act)*	progr. imperf., rep. imperf.
	'for S to dance'	
(344)	*O-S-ø-tóow (na act)*	rep. imperf.
	'for S to read O'	
(345)	*sha-S-d-l-xóot' (na act)*	rep. imperf.
	'for S to fish with rod, sportfish'	
(346)	*O-ka-S-l-neek (na act)*	rep. imperf.
	'for S to tell the story of O'	
(347)	*O-S-ø-xoox (ga act)*	prohib.
	'for S to call, summon O'	
(348)	*O-S-ø-hées' (ga act)*	prohib., cond.
	'for S to borrow O'	
(349)	*O-ka-S-l-xóot' (ga act)*	prohib., cond.
	'for S to chop up O'	

15.1 Invariable Themes that are Irregular in the Imperfective

The themes given in (335-340) above all have long high stems in all modes except for the negative imperfective, where they have short high stems. Among these six themes are two stems: *-k'éi* and *–góo*, and the semantic relationship between the themes sharing a common stem is obvious. An additional unexpected feature for the themes 'happy' (with stem *–góo*) and 'want' in the negative imperfective form is that they both use the classifier *sh-*, instead of the expected *s-*, which is used in all other modes. Crippen (2012:305) notes that the stem *–k'éi* has the irregular form *–k'é*, but while he asserts that this irregular form occurs in any irrealis marked verb, the present research finds it to only occur in the negative imperfective form. The negative imperfective forms follow for each of these themes.

(350) *tlél uk'é* 'he/she/it is not good'
(351) *tlél du toowú uk'é* 's/he isn't happy'
(352) *tlél ushk'é* 'he/she/it is bad'
(353) *tlél du tooshgú* 's/he is not happy'
(354) *tlél tooshgú* 's/he is unhappy'
(355) *tlél du tuwáa ushgú* 's/he doesn't want it'

15.2 Invariable Themes that are Irregular in the Progressive Imperfective

The progressive imperfective is a mode in which verb stem variation is based entirely on whether the stem is open or closed: open stems have long high vowels and closed stems have short high vowels. Three verb themes with closed stems (given in (356a-358b) below which are otherwise invariable (except for 'dance' which also has an unexpected stem in the repetitive imperfective), have short high stems in the progressive.

(356a) *s-.áat' (Ø state)* 'for an inanimate object to be cold'
(356b) *yaa nas.át'* 'it's getting cold'

(357a) *a-S-ø-l'eix (na act)* 'for S to dance'
(357b) *yaa anal'éx* 's/he is dancing along'

(358a) *a-S-d-s-t'eix (na act)* 'for S to fish with hooks, troll'
(358b) *yaa anast'éx* 's/he is trolling along'

15.3 Invariable Themes that are Irregular in the Repetitive Imperfective

The four examples in (359a-362b) below are all *na* conjugation, active themes, with either long low or long high invariable stems, as given in their themes in (a) of each set. The repetitive forms given in (b) however, show that they have short high stems

in this mode. Note that short high stems would be expected in the repetitve imperfective form for *na* conjugation themes with closed (variable) stems.

(359a) *a-S-ø-l'ei<u>x</u> (na act)*	'for S to dance'
(359b) *yoo ayal'é<u>x</u>k*	's/he dances (regularly)

(360a) *O-S-ø-tóow (na act)*	'for S to read O'
(360b) *atúw<u>x</u>*	's/he reads it (regularly)

(361a) *sha-S-d-l-<u>x</u>óot' (na act)*	'for S to fish with rod, sportfish'
(361b) *yoo shadli<u>x</u>út'k*	's/he sportfishes (regularly)'

(362a) *O-ka-S-l-neek (na act)*	'for S to tell the story of O'
(362b) *yoo akliníkk*	's/he tells the story of it (regularly)'

15.4 Invariable Themes that are Irregular in the Prohibitive

The first example of an irregular verb in the prohibitive is given in (363) below. This is an imperfective prohibitive, and we would expect the verb stem to be the same here as in the negative imperfective form, which in this case, is also irregular for this verb: *tlél uk'é* 'he/she/it is not good'. Remember from Section 15.1 that this verb is considered invariable, with a long high stem everywhere except the negative imperfective (with a short high stem), and as we see now, the imperfective prohibitive (with a long low stem).

(363) *Líl eek'eiyí<u>k</u>!*	'Don't be good!'

The themes given in (364a), (365a), and (366a) below show an invariable long high stem, long high stem, and long low stem respectively. In the repetitive imperfective prohibitive forms given in (b) of each set below however, they all have short high

stems. Note that short high stems would be expected for themes with variable closed stems in the *na, ga, ga* conjugation category. As was discussed in Chapter 12, the verb stem in each of the three types of prohibitive modes is the same as the verb stem in the "partner" mode (imperfective, perfective, or repetitive imperfective). However, the four verbs given below all have long stems in the repetitive imperfective, so these irregular repetitive imperfective prohibitive forms are not based on the repetitive imperfective forms.

(364a) *O-S-ø-hées' (ga act)* 'for S to borrow O'
(364b) *Líl kei eehís'jik* 'Don't borrow it!'

(365a) *O-ka-S-l-x óot' (ga act)* 'for S to chop up O'
(365b) *Líl yei keelaxút'jik!* 'Don't chop it up!'

(366a) *O-S-ø-xoox (ga act)* 'for S to call, summon O'
(366b) *Líl yei eexúxjik!* 'Don't summon him/her!'

15.5 Invariable Themes that are Irregular in the Conditional

Two themes have invariably long high stems everywhere but the prohibitive and conditional, where they have short high stems. They are given in the conditional in (367b) and (368b) below. Again, their stems in the conditional, though unexpected for these themes, is what we would expect for themes with variable stems with this basic stem shape (CV́VC') and conjugation prefix (*ga-, ga-*).

(367a) *O-S-ø-hées' (ga act)* 'for S to borrow O'
(367b) *agahís'ni* 'if/when s/he borrows it'

(368a) *O-ka-S-l-xóot' (ga act)* 'for S to chop up O'
(368b) *akagalxút'ni* 'if/when s/he chops it'

The intention of this chapter is not to explain the origin or reason for the irregularities, which remain enigmatic, but to draw the reader's attention to them, and to point out that, in Tlingit, even "invariable" stems have exceptions.

16. Conclusion

There remains much to do in documenting Tlingit verbs. Currently having just over 575 Tlingit verb paradigms, my Toolbox database from which the paradigms on the accompanying CD were exported is very incomplete in terms of the number of entries. A more complete documentation would include paradigms for the (roughly) 2,200 verb themes listed in Story & Naish (1973). At the time of this writing, four of the nine primary consultants to this project have passed on. Given the advanced ages of the remaining speakers, there is probably a five to ten year window to complete this research.

For a given verb theme, there are up to seven critical forms that must be documented in order to predict the rest of the paradigm. The actual number depends on the theme's basic stem shape and conjugation prefix. However, since there are some irregular verbs, it is preferable to document as many of the modes as possible in consultation with fluent speakers, since once cannot predict which verbs are going to be irregular, and in which modes. In conducting the research for this project, I have found that it is reasonable to collect two verb paradigms per hour of consultation with speakers. It takes about an equal amount of time to enter the data and prepare for the next meeting. If meeting with speakers for four hours per week year round (this is a reasonable number given the numerous cancellations due to illness, medical appointments, and energy levels), it could take four years to complete this research.

Future research should address some of the questions raised in this dissertation. For example, which verb themes can take the (optional) hortative suffix *–i/-u*, and what are the determining factors? What determines the choice of verb stem (long low or short high) in the perfective habitual mode among *Ø* conjugation themes with closed stems? Is there a determining factor causing some *Ø* conjugation motion verbs to have (unexpected) long low stems in the imperative mode? The research

presented here also discovered some exceptions to the general patterns of verb stem variation, including a number of invariable stems that have variant stems in one or two modes, and a group of closed stems that have unexpected short high variants in the hortative and potential modes. These discoveries would benefit from special attention in future research.

Although the Toolbox software by SIL was not designed with Tlingit verb paradigms in mind, it was the current standard in lexical data management at the time I started this research, and I have managed to make it work, although with some persistent challenges. Most importantly, using Toolbox in the manner that I have presents problems in sharing data with the language community. Because I am (necessarily) using the software in a non-traditional way, the export process is cumbersome and requires the use of code that is tailored to my database setup in order to export the data to a user-friendly print format. I have had to rely on the extremely gracious help of SIL support staff in order to accomplish this for the dissertation.

For future research, it would be worth looking into LingSync, an open-source app designed to collect, search, and share data both online and offline, developed by field linguists and software developers, and launched in August, 2012. I tested the app in July, 2012, and although it didn't have the dictionary module at the time (and wasn't importing my data correctly), the developers were working on some promising new features that may very well solve many of the challenges presented by organizing and displaying Tlingit verbs.

Lexique Pro by SIL is an interactive lexicon viewer and editor, designed to display data in a user-friendly format and to easily share the data with others. This is the obvious choice for making one's Toolbox database available to the language community electronically. However, without special programming, it is not capable of organizing certain critical features of Tlingit such as the relationships between

related verb themes and alphabetizing according to verb root in the Tlingit index. After exhausting this option, the decision was made to have an online database tailor-made using Drupal (an open-source content management framework). As mentioned in the Introduction, this was made possible by funding from the Administration for Native Americans to the Goldbelt Heritage Foundation in 2009. This online database is titled *575+ Tlingit Verbs*, and can be found on the Goldbelt Heritage Foundation website at http://www.goldbeltheritage.org/verbs/verbs/tlingit/1. The database is searchable in both English and Tlingit, has a Tlingit index (in which verb entries are listed under a common root, and are alphabetized according to verb stem) and an English Index. The information contained within was exported from my Toolbox database and has been maintained since the 2009 export. At the time of this writing, the only difference between the information on the CD and the online database is that the online database lacks some of the notation in the verb theme of some entries. Specifically, I have not yet tackled the problem of typing a superscript ^{h} or V́ (V with an acute accent) in the online database. Currently, the online database isn't set up to handle these special characters. This means that verb themes with CVV^{h} stems are lacking the ^{h} in the theme, and themes with unexpected imperative, hortative, and potential forms are not indicated in the online database. For example, the theme for *awsikóo* 's/he knows it' is given on the CD (and in my Toolbox database) as: *O-S-s-koo^{h}~ (Ø event; C V́V Imp/Hort/Pot)*, but in the online database as: *O-S-s-koo~ (Ø event)*, since the superscript ^{h} and the *V́* cannot yet be typed in the online database.

The decision to include the verb paradigms on a CD rather than in print for this dissertation was based on the fact that, as formatted, the paradigms are over a thousand pages long, and would require being bound in multiple volumes. The reader can choose to have them printed from the CD if a print version is desired.

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APPENDIX A

How to Use the Prefix Combination Charts

A1. Introduction

Tlingit verbs are made up of a root plus prefixes. When the various prefixes combine, they often contract, changing their original form. Taking an example from English, "cannot" often contracts to "can't". The difference is that the contractions that take place in Tlingit are not optional. The prefix combination charts in the following appendices show the contractions of all possible combinations of prefixes. The prefix combinations are a predictable element of Tlingit verbs. These charts will answer questions like, "What do you get when you combine *ka-, wu-, u-, x̲a-,* and *sha-*?" Answer: *kax̲wsha-* as in *tlél kax̲wshaxeet* 'I didn't write it'.

Some verbal prefixes in Tlingit convey information such as verb tense and subject, while others are an inherent property of the verb. The inventory of verbal prefixes in Tlingit includes (but is not limited to) the following:

1) Classifiers *(Ø-, da-, ya-, di, sa-, s-, si-, dzi-, sha-, sh-, shi-, ji-, la- l- li-, and dli-)*
2) Subject prefixes (*x̲a-, ee-, Ø-, too-, yi-, and du-)*
3) Conjugation prefixes *(na-, ga-, g̲a-,* and *Ø-)*
4) Aspect prefix *(g̲a-)*
5) Thematic prefixes (*ka-, tu-, ji-, ya-, k̲u-, x̲'a-, etc.)*
6) Perfective (past tense) prefix *(wu-)*
7) Irrealis (negative) prefix *(u-)*

All Tlingit verbs, in addition to a stem, minimally have a classifier and subject prefix. Accordingly, the prefix combination charts are organized by subject prefix on the y-axis and classifier on the x-axis, as shown in Table A-1 below. Because there are too many classifiers to fit across one page, the tables are divided into two sections, with

the first 8 classifiers given across the top of the first section and the second 8 given in the second section. The label 3-3 among the subject prefixes indicates a third person subject with a third person object (in which case the third person object prefix *a-* is present). Note also the labels Irr.-1.sg., Irr.-3., and Irr.-4. These rows give the combination of the 1st, 3rd, and 4th person subject prefixes along with the irrealis (negative) prefix *u-.* This irrealis prefix does not occur with the other subject prefixes, so it is only necessary to show the negative prefix with the 1st, 3rd, and 4th person subjects. Every prefix combination chart has at a minimum the combinations given in Table A-1.

Table A-1. Basic Components of the Prefix Combination Charts

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
1.sg.	xa-								
2.sg.	ee-								
3.	Ø-								
3-3.	a-								
1.pl.	too-								
2.pl.	yi-								
4.	du-								
Irr.-1.sg.	u-xa-								
Irr.-3.	u-Ø-								
Irr.-4.	u-du-								
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
1.sg.	xa-								
2.sg.	ee-								
3.	Ø-								
3-3.	a-								
1.pl.	too-								
2.pl.	yi-								
4.	du-								
Irr.-1.sg.	u-xa-								
Irr.-3.	u-Ø-								
Irr.-4.	u-du-								

Some verbs, in addition to a classifier and subject prefix, have a thematic prefix such as *ka-,* illustrated by the verb *kaxashxeet* 'I am writing'. This verb consists of the

thematic prefix *ka-,* subject prefix *xa-,* classifier *sh-,* and the verb root *–xeet*. Sometimes the thematic prefixes contract with the subject prefix and classifier. In order to show the results of all of these possible combinations, each chart gives tables showing the combination of the above subject and classifier prefixes with each of three thematic prefixes: *ka-, ji-, and tu-*. The different vowels in these thematic prefixes result in different contractions, which is why these three prefixes were chosen as representative samples. Each of these represents all other thematic prefixes containing the same vowel. If you are wondering about a verb that contains a thematic prefix different from one of these, refer to the table whose thematic prefix has the same vowel as the one in question. For example, if you want to determine the prefix combinations for the verb *kuwak'éi* 'the weather is good', which has the thematic prefix *ku-*, you would refer to the table containing the thematic prefix *tu-*, (since both contain the vowel *u*) and replace the *t* with a *k* throughout. Likewise, if you want to look up prefix combinations for the verb *yaawat'áa* 'it's hot', which contains the thematic prefix *ya-,* you should refer to the tables containing the thematic prefix *ka-*, since *ka-* has the same vowel as *ya-*.

A1.1 Prefix String Ø-

What has been described so far is the most basic prefix combination chart: **Ø-**. The chart titled "Prefix String **Ø**" lists all subject plus classifier plus thematic prefix combinations, without any additional prefixes. This chart is useful for determining the prefix combinations in the imperfective, since this mode requires no other prefixes. From here, all other charts build on this foundation, and add prefixes related to different verb modes.

A1.2 Prefix String *wu-* (perfective)

The *wu-* prefix chart applies to perfective forms only. This chart lists the combinations of the perfective prefix *wu-* plus all subject, classifier, and thematic prefix combinations. Note that the perfective prefix *wu-* and the irrealis (negative)

prefix *u-* do not co-occur, so in the negative perfective, the irrealis marker is dropped. For this reason, there are no rows showing combinations with the irrealis marker in the perfective chart.

A1.3 Prefix String *ga-u-g̲a-* (future)

The future prefix chart applies to future forms only. This chart lists the combinations of the future prefixes *(ga-u-g̲a-)* along with all subject, classifier, and thematic prefix combinations. Note that future forms always use the –I form of the classifier, so the future chart only contains prefix combinations with –I classifiers.

A1.4 Prefix String *na-*, Prefix String *ga-*, and Prefix string *g̲a-*

Certain verb forms require the use of a conjugation prefix. The modes included in this dissertation which require a conjugation prefix (and not the aspect prefix *g̲a-*) are the imperative, perfective habitual, and conditional. There are a total of four conjugation prefix options (*na-, ga-, g̲a-, and Ø-* (no prefix)). Every Tlingit verb uses one of these four options. For example, in the imperative, *na* conjugation verbs use the *na-* prefix (*Nagú!* Go!'); *ga* conjugation verbs use the *ga* prefix *(Gagwáal!* 'Beat it (drum)!'; *g̲a* conjugation verbs use the *g̲a-* prefix *(G̲a.éex'!* 'Invite him/her!'); and *Ø* conjugation verbs use no conjugation prefix *(La.áx̲!* 'Play it (musical instrument)!').

The *na-, ga-,* and *g̲a-* charts will be useful in determining the prefix combinations for verbs belonging in each of these categories for the imperative, perfective habitual, and conditional modes. Note however that some verbs do not use the second person singular subject prefix in the imperative form, this described in Chapter 6. Note also that *Ø* conjugation verbs use the irrealis prefix *u-* in the perfective habitual form, this described in Chapter 7.

Note that the *g̲a-* chart additionally applies to any *Ø* conjugation verb in the hortative, potential attributive, or potential decessive modes because these three

forms require the *ga-* aspect prefix in addition to the verb's regular conjugation prefix.

A1.5 Prefix String *na-ga-,* Prefix String *ga-ga-*, and Prefix stgring *ga-ga-*

As mentioned above, there are three modes included in this dissertation that require both the *ga-* aspect prefix and the verb's regular conjugation prefix (*na-, ga-, ga-,* or *Ø-*). These are the hortative, potential attributive, and potential decessive. These charts give the combination of the *ga-* aspect prefix plus the verb's regular conjugation prefix along with the subject, classifier, and thematic prefixes.

The prefix combination charts in Appendices B-J are an expansion of those found in Leer (1991:185-202). Leer lists the classifiers in his chart as Ø-, ya-, C- (any classifier that consists only of a consonant), Ca- (any classifier that consists of a consonant plus the vowel a), and Ci- (any classifier that consists of a consonant plus the vowel i). Leer represents all thematic prefixes as CV. In the charts in the following appendices, each classifier is given in its actual form, and an actual thematic prefix with each vowel is used to represent other thematic prefixes with the same vowel. In this way, the charts are more user-friendly for second language learners. Additionally, the tables presented here give a row not found in Leer (1991), that being the third person subject plus third person object. This is an important addition as the presence of the object prefix *a* affects the resulting combinations. Appendix J reveals some alternate prefix combinations for the *ga-ga-* prefix string with the irrealis prefix *u-* that are not documented in Leer (1991).

APPENDIX B

Prefix String Ø-

Table B-1. Prefix String Ø-

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	xa-	xada-	xaa-	xadi-	xasa-	xas-	xasi-	xadzi-
2.sg.	ee-	ee-	ida-	iya-	idi-	isa-	ees-	isi-	idzi-
3.	Ø-	Ø-	da-	ya-	di-	sa-	is-	si-	dzi-
3-3.	a-	a-	---	aya-	---	as-	as-	asi-	adzi-
1.pl.	too-	too-	tuda-	tuwa-	tudi-	tusa-	toos-	tusi-	tudzi-
2.pl.	yi-	yi-	yida-	yeey-	yeeydi-	yisa-	yis-	yeeysi-	yeeydzi-
4.	du-	du-	du-	duwa-	duwa-	dus-	dus-	dudzi-	dudzi-
Irr.-1.sg.	u-xa-	xwa-/ uxa-	xwada-/ uxda-	xwaa-/ uxaa-	xwadi-/ uxdi-	xwasa-/ uxsa-	xwas-	xwasi-/ uxsi-	xwadzi-/ uxdzi-
Irr.-3.	u-Ø-	u-	uda-	uwa-	udi-	us-	us-	usi-	udzi-
Irr.-3-3	a-u-	oo-	ooda-	oowa-	oodi-	oos-	oos-	oosi-	oodzi-
Irr.-4.	u-du-	du-	du-	duwa-	duwa-	dus-	dus-	dudzi-	dudzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	xasha-	xash-	xashi-	xaji-	xala-	xal-	xali-	xadli-
2.sg.	ee-	isha-	eesh-	ishi-	iji-	ila-	eel-	ili-	idli-
3.	Ø-	sha-	ish-	shi-	ji-	la-	il-	li-	dli-
3-3.	a-	ash-	ash-	ashi-	aji-	al-	al-	ali-	adli-
1.pl.	too-	tusha-	toosh-	tushi-	tuji-	tula-	tool-	tuli-	tudli-
2.pl.	yi-	yisha-	yish-	yeeyshi-	yeeyji-	yila-	yil-	yeeyli-	yeeydli-
4.	du-	dush-	dush-	duji-	duji-	dul-	dul-	dudli-	dudli-
Irr-1.sg.	u-xa-	xwasha-/ uxsha-	xwash-	xwashi-/ uxshi-	xwaji-/ uxji-	xwala-/ uxla-	xwal-	xwali-/ uxli-	xwadli-/ uxdli-
Irr-3.	u-Ø-	ush-	ush-	ushi-	uji-	ul-	ul-	uli-	udli-
Irr.-3-3	a-u-	oosh-	oosh-	ooshi-	ooji-	ool-	ool-	ooli-	oodli-
Irr.-4.	u-du-	dush-	dush-	duji-	duji-	dul-	dul-	dudli-	dudli-

Table B-2. Prefix String *Ø-* with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	kaxa-	kaxda-	kaxaa-	kaxdi-	kaxsa-	kaxas-	kaxsi-	kaxdzi-
2.sg.	ee-	kee-	keeda-	keeya-	keedi-	keesa-	kees-	keesi-	keedzi-
3.	Ø-	ka-	kada-	kaya-	kadi-	kasa-	kas-	kasi-	kadzi-
3-3.	a-	aka-	akda-	akaya-	akdi-	aksa-	akas-	aksi-	akdzi-
1.pl.	too-	katoo-	katuda-	katuwa-	katudi-	katusa-	katoos-	katusi-	katudzi-
2.pl.	yi-	kay-	kayda-	kayeey-	kaydi-	kaysa-	kayis-	kaysi-	kaydzi-
4.	du-	kadu-	kadu-	kaduwa-	kaduwa-	kadus-	kadus-	kadudzi-	kadudzi-
Irr.-1.sg.	u-xa-	kooxa-	kooxda-	kooxaa-	kooxdi-	kooxsa-	kooxas-	kooxsi-	kooxdzi-
Irr.-3.	u-Ø-	koo-	kooda-	koowa-	koodi-	koos-	koos-	koosi-	koodzi-
Irr.-3-3	a-u-	akoo-	akooda-	akoowa-	akoodi-	akoos-	akoos-	akoosi-	akoodzi-
Irr.-4.	u-du-	koodu-/ kudu-	---	---	---	---	koodus-/ kudus-	---	---
Thm.-1.sg.	u·-xa-	kuxa-	kuxda-	kuxaa-	kuxdi-	kuxsa-	kuxas-	kuxsi-	kuxdzi-
Thm.-3.	u·-Ø-	ku-	kuda-	kuwa-	kudi-	kusa-	kus-	kusi-	kudzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	kaxsha-	kaxash-	kaxshi-	kaxji-	kaxla-	kaxal-	kaxli-	kaxdli-
2.sg.	ee-	keesha-	keesh-	keeshi-	keeji-	keela-	keel-	keeli-	keedli-
3.	Ø-	kasha-	kash-	kashi-	kaji-	kala-	kal-	kali-	kadli-
3-3.	a-	aksha-	akash-	akshi-	akji-	akla-	akal-	akli-	akdli-
1.pl.	too-	katusha-	katoosh-	katushi-	katuji-	katula-	katool-	katuli-	katudli-
2.pl.	yi-	kaysha-	kayish-	kayshi-	kayji-	kayla-	kayil-	kayli-	kaydli-
4.	du-	kadush-	kadush-	kaduji-	kaduji-	kadul-	kadul-	kadudli-	kadudli-
Irr-1.sg.	u-xa-	kooxsha-	kooxash-	kooxshi-	kooxji-	kooxla-	kooxal-	kooxli-	kooxdli-
Irr-3.	u-Ø-	koosh-	koosh-	kooshi-	kooji-	kool-	kool-	kooli-	koodli-
Irr.-3-3	a-u-	akoosh-	akoosh-	akooshi-	akooji-	akool-	akool-	akooli-	akoodli-
Irr.-4.	u-du-	---	koodush-/ kudush-	---	---	---	---	koodul-/ kudul-	---
Thm.-1.sg.	u·-xa-	kuxsha-	kuxash-	kuxshi-	kuxji-	kuxla-	kuxal-	kuxli-	kuxdli-
Thm.-3.	u·-Ø-	kusha-	kush-	kushi-	kuji-	kula-	kul-	kuli-	kudli-

Table B-3. Prefix String *Ø-* with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	jixa-	jixda-	jixaa-	jixdi-	jixsa-	jixas-	jixsi-	jixdzi-
2.sg.	ee-	jee-	jeeda-	jeeya-	jeedi-	jeesa-	jees-	jeesi-	jeedzi-
3.	Ø-	ji-	jida-	jiya-	jidi-	jisa-	jis-	jisi-	jidzi-
3-3.	a-	aji-	ajida-	ajiya-	ajidi-	ajisa-	ajis-	ajisi-	ajidzi-
1.pl.	too-	jitoo-	jituda-	jituwa-	jitudi-	jitusa-	jitoos-	jitusi-	jitudzi-
2.pl.	yi-	jiy-	jiyda-	jiyeey-	jiydi-	jiysa-	jiyis-	jiysi-	jiydzi-
4.	du-	jidu-	jidu-	jiduwa-	jiduwa-	jidus-	jidus-	jidudzi-	jidudzi-
Irr.-1.sg.	u-xa-	jeexa-	jeexda-	jeexaa-	jeexdi-	jeexsa-	jeexas-	jeexsi-	jeexdzi-
Irr.-3.	u-Ø-	jee-	jeeda-	jeeya-	jeedi-	jees-	jees-	jeesi-	jeedzi-
Irr.-3-3	a-u-	ajee-	ajeeda-	ajeeya-	ajeedi-	ajees-	ajees-	ajeesi-	ajeedzi-
Irr.-4.	u-du-	jeedu-/ judu-	---	---	---	---	jeedus-/ judus-	---	---
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	jixsha-	jixash-	jixshi-	jixji-	jixla-	jixal-	jixli-	jixdli-
2.sg.	ee-	jeesha-	jeesh-	jeeshi-	jeeji-	jeela-	jeel-	jeeli-	jeedli-
3.	Ø-	jisha-	jish-	jishi-	jiji-	jila-	jil-	jili-	jidli-
3-3.	a-	ajisha-	ajish-	ajishi-	ajiji-	ajila-	ajil-	ajili-	ajidli-
1.pl.	too-	jitusha-	jitoosh-	jitushi-	jituji-	jitula-	jitool-	jituli-	jitudli-
2.pl.	yi-	jiysha-	jiyish-	jiyshi-	jiyji-	jiyla-	jiyil-	jiyli-	jiydli-
4.	du-	jidush-	jidush-	jiduji-	jiduji-	jidul-	jidul-	jidudli-	jidudli-
Irr-1.sg.	u-xa-	jeexsha-	jeexash-	jeexshi-	jeexji-	jeexla-	jeexal-	jeexli-	jeexdli-
Irr-3.	u-Ø-	jeesh-	jeesh-	jeeshi-	jeeji-	jeel-	jeel-	jeeli-	jeedli-
Irr.-3-3	a-u-	ajeesh-	ajeesh-	ajeeshi-	ajeeji-	ajeel-	ajeel-	ajeeli-	ajeedli-
Irr.-4.	u-du-	---	jeedush-/ judush-	---	---	---	jeedul-/ judul-	---	---

Table B-4. Prefix String *Ø-* with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	tuxa-	tuxda-	tuxaa-	tuxdi-	tuxsa-	tuxas-	tuxsi-	tuxdzi-
2.sg.	ee-	tee-	teeda-	teeya-	teedi-	teesa-	tees-	teesi-	teedzi-
3.	Ø-	tu-	tuda-	tuya-	tudi-	tusa-	tus-	tusi-	tudzi-
3-3.	a-	atu-	atuda-	atuwa-	atudi-	atusa-	atus-	atusi-	atudzi-
1.pl.	too-	tutoo-	tutuda-	tutuwa-	tutudi-	tutusa-	tutoos-	tutusi-	tutudzi-
2.pl.	yi-	tuy-	tuyda-	tuyeey-	tuydi-	tuysa-	tuyis-	tuysi-	tuydzi-
4.	du-	tudu-	tudu-	tuduwa-	tuduwa-	tudus-	tudus-	tududzi-	tududzi-
Irr.-1.sg.	u-xa-	tooxa-	tooxda-	tooxaa-	tooxdi-	tooxsa-	tooxas-	tooxsi-	tooxdzi-
Irr.-3.	u-Ø-	too-	tooda-	tooya-	toodi-	toos-	toos-	toosi-	toodzi-
Irr.-3-3	a-u-	atoo-	atooda-	atooya-	atoodi-	atoos-	atoos-	atoosi-	atoodzi-
Irr.-4.	u-du-	toodu-/ tudu-	---	---	---	---	toodus-/ tudus-	---	---
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	tuxsha-	tuxash-	tuxshi-	tuxji-	tuxla-	tuxal-	tuxli-	tuxdli-
2.sg.	ee-	teesha-	teesh-	teeshi-	teeji-	teela-	teel-	teeli-	teedli-
3.	Ø-	tusha-	tush-	tushi-	tuji-	tula-	tul-	tuli-	tudli-
3-3.	a-	atusha-	atush-	atushi-	atuji-	atula-	atul-	atuli-	atudli-
1.pl.	too-	tutusha-	tutoosh-	tutushi-	tutuji-	tutula-	tutool-	tutuli-	tutudli-
2.pl.	yi-	tuysha-	tuyish-	tuyshi-	tuyji-	tuyla-	tuyil-	tuyli-	tuydli-
4.	du-	tudush-	tudush-	tuduji-	tuduji-	tudul-	tudul-	tududli-	tududli-
Irr-1.sg.	u-xa-	tooxsha-	tooxash-	tooxshi-	tooxji-	tooxla-	tooxal-	tooxli-	tooxdli-
Irr-3.	u-Ø-	toosh-	toosh-	tooshi-	tooji-	tool-	tool-	tooli-	toodli-
Irr.-3-3	a-u-	atoosh-	atoosh-	atooshi-	atooji-	atool-	atool-	atooli-	atoodli-
Irr.-4.	u-du-	---	toodush-/ tudush-	---	---	---	toodul-/ tudul-	---	---

APPENDIX C

Prefix string: wu- (perfective)

Table C-1. Prefix string: *wu-* (perfective)

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	xwa-	xwada-	xwaa-	xwadi-	xwasa-	xwas-	xwasi-	xwadzi-
2.sg.	ee-	yi-	yida-	yee-/iya-	yidi-	yisa-	yis-	yisi-	yidzi-
3.	Ø-	wu-	wuda-	woo-/uwa-	wudi-	wus-	wus-	wusi-	wudzi-
3-3.	a-	awu-	awda-	aawa-	awdi-	awus-	awus-	awsi-	awdzi-
1.pl.	too-	wutoo-	wutuda-	wutuwa-	wutudi-	wutusa-	wutoos-	wutusi-	wutudzi-
2.pl.	yi-	yeey-	yeeyda-	yeey-	yeeydi-	yeeysa-	yeeys-	yeeysi-	yeeydzi-
4.	du-	wudu-	wudu-	wuduwa-	wuduwa-	wudus-	wudus-	wududzi-	wududzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	xwasha-	xwash-	xwashi-	xwaji-	xwala-	xwal-	xwali-	xwadli-
2.sg.	ee-	yisha-	yish-	yishi-	yiji-	yila-	yil-	yili-	yidli-
3.	Ø-	wush-	wush-	wushi-	wuji-	wul-	wul-	wuli-	wudli-
3-3.	a-	awush-	awush-	awshi-	awji-	awul-	awul-	awli-	awdli-
1.pl.	too-	wutusha-	wutoosh-	wutushi-	wutuji-	wutula-	wutool-	wutuli-	wutudli-
2.pl.	yi-	yeeysha-	yeeysh-	yeeyshi-	yeeyji-	yeeyla-	yeeyl-	yeeyli-	yeeydli-
4.	du-	wudush-	wudush-	wuduji-	wuduji-	wudul-	wudul-	wududli-	wududli-

Table C-2. Prefix string: *wu-* (perfective) with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	kaxwa-	kaxwda-	kaxwaa-	kaxwdi-	kaxwsa-	kaxwas-	kaxwsi-	kaxwdzi-
2.sg.	ee-	kayi-	kayda-	keeya-	kaydi-	kaysa-	kayis-	kaysi-	kaydzi-
3.	Ø-	kawu-	kawda-	kaawa-	kawdi-	kawus-	kawus-	kawsi-	kawdzi-
3-3.	a-	akawu-	akawda-	akaawa-	akawdi-	akawus-	akawus-	akawsi-	akawdzi-
1.pl.	too-	kawtoo-	kawtuda-	kawtuwa-	kawtudi-	kawtusa-	kawtoos-	kawtusi-	kawtudzi-
2.pl.	yi-	kayeey-	kayeeyda-	kayeey-	kayeeydi-	kayeeysa-	kayeeys-	kayeeysi-	kayeeydzi-
4.	du-	kawdu-	kawdu-	kawduwa-	kawduwa-	kawdus-	kawdus-	kawdudzi-	kawdudzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	kaxwsha-	kaxwash-	kaxwshi-	kaxwji-	kaxwla-	kaxwal-	kaxwli-	kaxwdli-
2.sg.	ee-	kaysha-	kayish-	kayshi-	kayji-	kayla-	kayil-	kayli-	kaydli-
3.	Ø-	kawush-	kawush-	kawshi-	kawji-	kawul-	kawul-	kawli-	kawdli-
3-3.	a-	akawush-	akawush-	akawshi-	akawji-	akawul-	akawul-	akawli-	akawdli-
1.pl.	too-	kawtusha-	kawtoosh-	kawtushi-	kawtuji-	kawtula-	kawtool-	kawtuli-	kawtudli-
2.pl.	yi-	kayeeysha-	kayeeysh-	kayeeyshi-	kayeeyji-	kayeeyla-	kayeeyl-	kayeeyli-	kayeeydli-
4.	du-	kawdush-	kawdush-	kawduji-	kawduji-	kawdul-	kawdul-	kawdudli-	kawdudli-

Table C-3. Prefix string: *wu-* (perfective) with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	jixwa-	jixwda-	jixwaa-	jixwdi-	jixwsa-	jixwas-	jixwsi-	jixwdzi-
2.sg.	ee-	jiyi-	jiyda-	jeeya-	jiydi-	jiysa-	jiyis-	jiysi-	jiydzi-
3.	Ø-	jiwu-	jiwda-	jeeya-	jiwdi-	jiwus-	jiwus-	jiwsi-	jiwdzi-
3-3.	a-	ajiwu-	ajiwda-	ajeeya-	ajiwdi-	ajiwus-	ajiwus-	ajiwsi-	ajiwdzi-
1.pl.	too-	jiwtoo-	jiwtuda-	jiwtuwa-	jiwtudi-	jiwtusa-	jiwtoos-	jiwtusi-	jiwtudzi-
2.pl.	yi-	jiyeey-	jiyeeyda-	jiyeey-	jiyeeydi-	jiyeeysa-	jiyeeys-	jiyeeysi-	jiyeeydzi-
4.	du-	jiwdu-	jiwdu-	jiwduwa-	jiwduwa-	jiwdus-	jiwdus-	jiwdudzi-	jiwdudzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	jixwsha-	jixwash-	jixwshi-	jixwji-	jixwla-	jixwal-	jixwli-	jixwdli-
2.sg.	ee-	jiysha-	jiyish-	jiyshi-	jiyji-	jiyla-	jiyil-	jiyli-	jiydli-
3.	Ø-	jiwush-	jiwush-	jiwshi-	jiwji-	jiwul-	jiwul-	jiwli-	jiwdli-
3-3.	a-	ajiwush-	ajiwush-	ajiwshi-	ajiwji-	ajiwul-	ajiwul-	ajiwli-	ajiwdli-
1.pl.	too-	jiwtusha-	jiwtoosh-	jiwtushi-	jiwtuji-	jiwtula-	jiwtool-	jiwtuli-	jiwtudli-
2.pl.	yi-	jiyeeysha-	jiyeeysh-	jiyeeyshi-	jiyeeyji-	jiyeeyla-	jiyeeyl-	jiyeeyli-	jiyeeydli-
4.	du-	jiwdush-	jiwdush-	jiwduji-	jiwduji-	jiwdul-	jiwdul-	jiwdudli-	jiwdudli-

Table C-4. Prefix string: *wu-* (perfective) with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	tuxwa-	tuxwda-	tuxwaa-	tuxwdi-	tuxwsa-	tuxwas-	tuxwsi-	tuxwdzi-
2.sg.	ee-	tuyi-	tuyda-	teeya-	tuydi-	tuysa-	tuyis-	tuysi-	tuydzi-
3.	Ø-	tuwu-	tuwda-	toowa-	tuwdi-	tuwus-	tuwus-	tuwsi-	tuwdzi-
3-3.	a-	atuwu-	atuwda-	atoowa-	atuwdi-	atuwus-	atuwus-	atuwsi-	atuwdzi-
1.pl.	too-	tuwtoo-	tuwtuda-	tuwtuwa-	tuwtudi-	tuwtusa-	tuwtoos-	tuwtusi-	tuwtudzi-
2.pl.	yi-	tuyeey-	tuyeeyda-	tuyeey-	tuyeeydi-	tuyeeysa-	tuyeeys-	tuyeeysi-	tuyeeydzi-
4.	du-	tuwdu-	tuwdu-	tuwduwa-	tuwduwa-	tuwdus-	tuwdus-	tuwdudzi-	tuwdudzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	tuxwsha-	tuxwash-	tuxwshi-	tuxwji-	tuxwla-	tuxwal-	tuxwli-	tuxwdli-
2.sg.	ee-	tuysha-	tuyish-	tuyshi-	tuyji-	tuyla-	tuyil-	tuyli-	tuydli-
3.	Ø-	tuwush-	tuwush-	tuwshi-	tuwji-	tuwul-	tuwul-	tuwli-	tuwdli-
3-3.	a-	atuwush-	atuwush-	atuwshi-	atuwji-	atuwul-	atuwul-	atuwli-	atuwdli-
1.pl.	too-	tuwtusha-	tuwtoosh-	tuwtushi-	tuwtuji-	tuwtula-	tuwtool-	tuwtuli-	tuwtudli-
2.pl.	yi-	tuyeeysha-	tuyeeysh-	tuyeeyshi-	tuyeeyji-	tuyeeyla-	tuyeeyl-	tuyeeyli-	tuyeeydli-
4.	du-	tuwdush-	tuwdush-	tuwduji-	tuwduji-	tuwdul-	tuwdul-	tuwdudli-	tuwdudli-

APPENDIX D

Prefix string: *ga-û-ga-* (future)

Table D-1. Prefix string: *ga-û-ga-* (future)

Classifier:		**Ø**	**da-**	**sa-**	**s-**	**sha-**	**sh-**	**la-**	**l-**
Components:		*Ø*	*D-*	*S-*	*S-D-*	*Sh-*	*Sh-D-*	*L-*	*L-D-*
1.sg.	xa-	kuka-/ kkwa-	kukada-/ kkwada-	kukasa-/ kkwasa-	kukas-/ kkwas-	kukasha-/ kkwasha-	kukash-/ kkwash-	kukala-/ kkwala-	kukal-/ kkwal-
2.sg.	ee-	gagee-/ kgee-	gagida-/ kgida-	gagisa-/ kgisa-	gagees-/ kgees-	gagisha-/ kgisha-	gageesh-/ kgeesh-	gagila-/ kgila-	gageel-/ kgeel-
3.	Ø-	guga-/ kgwa-	guxda-	guxsa-	gugas-/ kgwas-	guxsha-	gugash-/ kgwash-	guxla-	gugal-/ kgwal-
3-3.	a-	akgwa-	aguxda-	aguxsa-	akgwas-	aguxsha-	akgwash-	aguxla-	akgwal-
1.pl.	too-	gaxtoo-	gaxtuda-	gaxtusa-	gaxtoos-	gaxtusha-	gaxtoosh-	gaxtula-	gaxtool-
2.pl.	yi-	gaxyi-	gaxyida-	gaxyisa-	gaxyis-	gaxyisha-	gaxyish-	gaxyila-	gaxyil-
4.	du-	gaxdu-	gaxdu-	gaxdus-	gaxdus-	gaxdush-	gaxdush-	gaxdul-	gaxdul-

Table D-2. Prefix string: *ga-û-ga-* (future) with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**sa-**	**s-**	**sha-**	**sh-**	**la-**	**l-**
Components:		*Ø*	*D-*	*S-*	*S-D-*	*Sh-*	*Sh-D-*	*L-*	*L-D-*
1.sg.	xa-	kakkwa-	kakkwada-	kakkwasa-	kakkwas-	kakkwasha-	kakkwash-	kakkwala-	kakkwal-
2.sg.	ee-	kakgee-	kakgida-	kakgisa-	kakgees-	kakgisha-	kakgeesh-	kakgila-	kakgeel-
3.	Ø-	kakgwa-	kaguxda-	kaguxsa-	kakgwas-	kaguxsha-	kakgwash-	kaguxla-	kakgwal-
3-3.	a-	akakgwa-	akaguxda-	akaguxsa-	akakgwas-	akaguxsha-	akakgwash-	akaguxla-	akakgwal-
1.pl.	too-	kagaxtoo-	kagaxtuda-	kagaxtusa-	kagaxtoos-	kagaxtusha-	kagaxtoosh-	kagaxtula-	kagaxtool-
2.pl.	yi-	kagaxyee-	kagaxyida-	kagaxyisa-	kagaxyees-	kagaxyisha-	kagaxyeesh-	kagaxyila-	kagaxyeel-
4.	du-	kagaxdu-	kagaxdu-	kagaxdus-	kagaxdus-	kagaxdush-	kagaxdush-	kagaxdul-	kagaxdul-

Table D-3. Prefix string: *ga-û-ga-* (future) with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**sa-**	**s-**	**sha-**	**sh-**	**la-**	**l-**
Components:		*Ø*	*D-*	*S-*	*S-D-*	*Sh-*	*Sh-D-*	*L-*	*L-D-*
1.sg.	xa-	jikkwa-	jikkwada-	jikkwasa-	jikkwas-	jikkwasha-	jikkwash-	jikkwala-	jikkwal-
2.sg.	ee-	jikgee-	jikgida-	jikgisa-	jikgees-	jikgisha-	jikgeesh-	jikgila-	jikgeel-
3.	Ø-	jikgwa-	jiguxda-	jiguxsa-	jikgwas-	jiguxsha-	jikgwash-	jiguxla-	jikgwal-
3-3.	a-	ajikgwa-	ajiguxda-	ajiguxsa-	ajikgwas-	ajiguxsha-	ajikgwash-	ajiguxla-	ajikgwal-
1.pl.	too-	jigaxtoo-	jigaxtuda-	jigaxtusa-	jigaxtoos-	jigaxtusha-	jigaxtoosh-	jigaxtula-	jigaxtool-
2.pl.	yi-	jigaxyee-	jigaxyida-	jigaxyisa-	jigaxyees-	jigaxyisha-	jigaxyeesh-	jigaxyila-	jigaxyeel-
4.	du-	jigaxdu-	jigaxdu-	jigaxdus-	jigaxdus-	jigaxdush-	jigaxdush-	jigaxdul-	jigaxdul-

Table D-4. Prefix string: *ga-û-ga-* (future) with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**sa-**	**s-**	**sha-**	**sh-**	**la-**	**l-**
Components:		*Ø*	*D-*	*S-*	*S-D-*	*Sh-*	*Sh-D-*	*L-*	*L-D-*
1.sg.	xa-	tukkwa-	tukkwada-	tukkwasa-	tukkwas-	tukkwasha-	tukkwash-	tukkwala-	tukkwal-
2.sg.	ee-	tukgee-	tukgida-	tukgisa-	tukgees-	tukgisha-	tukgeesh-	tukgila-	tukgeel-
3.	Ø-	tukgwa-	tuguxda-	tuguxsa-	tukgwas-	tuguxsha-	tukgwash-	tuguxla-	tukgwal-
3-3.	a-	atukgwa-	atuguxda-	atuguxsa-	atukgwas-	atuguxsha-	atukgwash-	atuguxla-	atukgwal-
1.pl.	too-	tugaxtoo-	tugaxtuda-	tugaxtusa-	tugaxtoos-	tugaxtusha-	tugaxtoosh-	tugaxtula-	tugaxtool-
2.pl.	yi-	tugaxyee-	tugaxyida-	tugaxyisa-	tugaxyees-	tugaxyisha-	tugaxyeesh-	tugaxyila-	tugaxyeel-
4.	du-	tugaxdu-	tugaxdu-	tugaxdus-	tugaxdus-	tugaxdush-	tugaxdush-	tugaxdul-	tugaxdul-

APPENDIX E

Prefix String *na-*

Table E-1. Prefix String *na-*

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	naxa-	naxda-	naxaa-	naxdi-	naxsa-	naxas-	naxsi-	naxdzi-
2.sg.	ee-	nee-	nida-	niya-	nidi-	nisa-	nees-	nisi-	nidzi-
3.	Ø-	na-	nada-	naa-	nadi-	nasa-	nas-	nasi-	nadzi-
3-3.	a-	ana-	anada-	anaa-	anadi-	anas-	anas-	anasi	anadzi-
1.pl.	too-	natoo-	natuda-	natuwa-	natudi-	natusa-	natoos-	natusi-	natudzi-
2.pl.	yi-	nay-	nayda-	nayeey-	naydi-	naysa-	nayis-	naysi-	naydzi-
4.	du-	nadu-	nadu-	naduwa-	naduwa-	nadus-	nadus-	nadudzi-	nadudzi-
Irr-1.sg.	u-xa-	unxa-/ naxwa-	unaxda-/ naxwda-	unxaa-/ naxwaa-	unaxdi-/ naxwdi-	unaxsa-/ naxwsa-	unxas-/ naxwas-	unaxsi-/ naxwsi-	unaxdzi-/ naxwdzi-
Irr-3.	u-Ø-	una-	unda-	unaa-	undi-	unas-	unas-	unsi-	undzi-
Irr.-3-3	a-u-	oona-	oonda-	oonaa-	oondi-	oonas-	oonas-	oonsi-	oondzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	naxsha-	naxash-	naxshi-	naxji-	naxla-	naxal-	naxli-	naxdli-
2.sg.	ee-	nisha-	neesh-	nishi-	niji-	nila-	neel-	nili-	nidli-
3.	Ø-	anash-	nash-	nashi-	naji-	nala-	nal-	nali-	nadli-
3-3.	a-	anash-	anash-	anashi-	anaji-	anal-	anal-	anali-	anadli-
1.pl.	too-	natusha-	natoosh-	natushi-	natuji-	natula-	natool-	natuli-	natudli-
2.pl.	yi-	naysha-	nayish-	nayshi-	nayji-	nayla-	nayil-	nayli-	naydli-
4.	du-	nadush-	nadush-	naduji-	naduji-	nadul-	nadul-	nadudli-	nadudli-
Irr-1.sg.	u-xa-	unaxsha-/ naxwsha-	unxash-/ naxwash-	unaxshi-/ naxwshi-	unaxji-/ naxwji-	unaxla-/ naxwla-	unxal-/ naxwal-	unaxli-/ naxwli-	unaxdli-/ naxwdli-
Irr-3.	u-Ø-	unash-	unash-	unshi-	unji-	unal-	unal-	unli-	undli-
Irr.-3-3	a-u-	oonash-	oonash-	oonshi-	oonji-	oonal-	oonal-	oonli-	oondli-

Table E-2. Prefix String *na-* with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	kanxa-	kanaxda-	kanxaa-	kanaxdi-	kanaxsa-	kanxas-	kanaxsi-	kanaxdzi-
2.sg.	ee-	kanee-	kanida-	kaniya-	kanidi-	kanisa-	kanees-	kanisi-	kanidzi-
3.	Ø-	kana-	kanda-	kanaa-	kandi-	kanasa-	kanas-	kansi-	kandzi-
3-3.	a-	akana-	akanda-	akanaa-	akandi-	akanas-	akanas-	akansi-	akandzi-
1.pl.	too-	kantoo-	kantuda-	kantuwa-	kantudi-	kantusa-	kantoos-	kantusi-	kantudzi-
2.pl.	yi-	kanay-	kanayda-	kanayeey-	kanaydi-	kanaysa-	kanayis-	kanaysi-	kanaydzi-
4.	du-	kandu-	kandu-	kanduwa-	kanduwa-	kandus-	kandus-	kandudzi-	kandudzi-
Irr.-1.sg.	u-xa-	koonxa-	koonaxda-	koonxaa-	koonaxdi-	koonaxsa-	koonxas-	koonaxsi-	koonaxdzi-
Irr.-3.	u-Ø-	koona-	koonda-	koonaa-	koondi-	koonsa-	koonas-	koonsi-	koondzi-
Irr.-3-3	a-u-	akoona-	akoonda-	akoonaa-	akoondi-	akoonsa-	akoonas-	akoonsi-	akoondzi-
Thm.-1.sg.	u·-xa-	kunxa-	kunaxda-	kunxaa-	kunaxdi-	kunaxsa-	kunxas-	kunaxsi-	kunaxdzi-
Thm.-3.	u·-Ø-	kuna-	kunda-	kunaa-	kundi-	kunas-	kunas-	kunsi-	kundzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	kanaxsha-	kanxash-	kanaxshi-	kanaxji-	kanaxla-	kanxal-	kanaxli-	kanaxdli-
2.sg.	ee-	kanisha-	kaneesh-	kanishi-	kaniji-	kanila-	kaneel-	kanili-	kanidli-
3.	Ø-	kansha-	kanash-	kanshi-	kanji-	kanla-	kanal-	kanli-	kandli-
3-3.	a-	akanash-	akanash-	akanshi-	akanji-	akanal-	akanal-	akanli-	akandli-
1.pl.	too-	kantusha-	kantoosh-	kantushi-	kantuji-	kantula-	kantool-	kantuli-	kantudli-
2.pl.	yi-	kanaysha-	kanayish-	kanayshi-	kanayji-	kanayla-	kanayil-	kanayli-	kanaydli-
4.	du-	kandush-	kandush-	kanduji-	kanduji-	kandul-	kandul-	kandudli-	kandudli-
Irr-1.sg.	u-xa-	koonaxsha-	koonxash-	koonaxshi-	koonaxji-	koonaxla-	koonxal-	koonaxli-	koonaxdli-
Irr-3.	u-Ø-	koonsha-	koonash-	koonshi-	koonji-	koonla-	koonal-	koonli-	koondli-
Irr.-3-3	a-u-	akoonsha-	akoonash-	akoonshi-	akoonji-	akoonla-	akoonal-	akoonli-	akoondli-
Thm.-1.sg.	u·-xa-	kunaxsha-	kunxash-	kunaxshi-	kunaxji-	kunaxla-	kunxal-	kunaxli-	kunaxdli-
Thm.-3.	u·-Ø-	kunash-	kunash-	kunshi-	kunji-	kunal-	kunal-	kunli-	kundli-

Table E-3. Prefix String *na-* with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	jinxa-	jinaxda-	jinxaa-	jinaxdi-	jinaxsa-	jinxas-	jinaxsi-	jinaxdzi-
2.sg.	ee-	jinee-	jinida-	jiniya-	jinidi-	jinisa-	jinees-	jinisi-	jinidzi-
3.	Ø-	jina-	jinda-	jinaa-	jindi-	jinsa-	jinas-	jinsi-	jindzi-
3-3.	a-	ajina-	ajinda-	ajinaa-	ajindi-	ajinas-	ajinas-	ajinsi-	ajindzi-
1.pl.	too-	jintoo-	jintuda-	jintuwa-	jintudi-	jintusa-	jintoos-	jintusi-	jintudzi-
2.pl.	yi-	jinay-	jinayda-	jinayeey-	jinaydi-	jinaysa-	jinayis-	jinaysi-	jinaydzi-
4.	du-	jindu-	jindu-	jinduwa-	jinduwa-	jindus-	jindus-	jindudzi-	jindudzi-
Irr.-1.sg.	u-xa-	jeenxa-	jeenaxda-	jeenxaa-	jeenaxdi-	jeenaxsa-	jeenxas-	jeenaxsi-	jeenaxdzi-
Irr.-3.	u-Ø-	jeena-	jeenda-	jeenaa-	jeendi-	jeenas-	jeenas-	jeensi-	jeendzi-
Irr.-3-3	a-u-	ajeena-	ajeenda-	ajeenaa-	ajeendi-	ajeenas-	ajeenas-	ajeensi-	ajeendzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	jinaxsha-	jinxash-	jinaxshi-	jinaxji-	jinaxla-	jinxal-	jinaxli-	jinaxdli-
2.sg.	ee-	jinisha-	jineesh-	jinishi-	jiniji-	jinila-	jineel-	jinili-	jinidli-
3.	Ø-	jinsha-	jinash-	jinshi-	jinji-	jinla-	jinal-	jinli-	jindli-
3-3.	a-	ajinash-	ajinash-	ajinshi-	ajinji-	ajinal-	ajinal-	ajinli-	ajindli-
1.pl.	too-	jintusha-	jintoosh-	jintushi-	jintuji-	jintula-	jintool-	jintuli-	jintudli-
2.pl.	yi-	jinaysha-	jinayish-	jinayshi-	jinayji-	jinayla-	jinayil-	jinayli-	jinaydli-
4.	du-	jindush-	jindush-	jinduji-	jinduji-	jindul-	jindul-	jindudli-	jindudli-
Irr-1.sg.	u-xa-	jeenaxsha-	jeenxash-	jeenaxshi-	jeenaxji-	jeenaxla-	jeenxal-	jeenaxli-	jeenaxdli-
Irr-3.	u-Ø-	jeenash-	jeenash-	jeenshi-	jeenji-	jeenal-	jeenal-	jeenli-	jeendli-
Irr.-3-3	a-u-	ajeenash-	ajeenash-	ajeenshi-	ajeenji-	ajeenal-	ajeenal-	ajeenli-	ajeendli-

Table E-4. Prefix String *na-* with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	x̲a-	tunx̲a-	tunax̲da-	tunx̲aa-	tunax̲di-	tunax̲sa-	tunx̲as-	tunax̲si-	tunax̲dzi-
2.sg.	ee-	tunee-	tunida-	tuniya-	tunidi-	tunisa-	tunees-	tunisi-	tunidzi-
3.	Ø-	tuna-	tunda-	tunaa-	tundi-	tunsa-	tunas-	tunsi-	tundzi-
3-3.	a-	atuna-	atunda-	atunaa-	atundi-	atunas-	atunas-	atunsi-	atundzi-
1.pl.	too-	tuntoo-	tuntuda-	tuntuwa-	tuntudi-	tuntusa-	tuntoos-	tuntusi-	tuntudzi-
2.pl.	yi-	tunay-	tunayda-	tunayeey-	tunaydi-	tunaysa-	tunayis-	tunaysi-	tunaydzi-
4.	du-	tundu-	tundu-	tunduwa-	tunduwa-	tundus-	tundus-	tundudzi-	tundudzi-
Irr.-1.sg.	u-x̲a-	toonx̲a-	toonax̲da-	toonx̲aa-	toonax̲di-	toonax̲sa-	toonx̲as-	toonax̲si-	toonax̲dzi-
Irr.-3.	u-Ø-	toona-	toonda-	toonaa-	toondi-	toonas-	toonas-	toonsi-	toondzi-
Irr.-3-3	a-u-	atoona-	atoonda-	a toonaa-	atoondi-	atoonas-	atoonas-	atoonsi-	atoondzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	x̲a-	tunax̲sha-	tunx̲ash-	tunax̲shi-	tunax̲ji-	tunax̲la-	tunx̲al-	tunax̲li-	tunax̲dli-
2.sg.	ee-	tunisha-	tuneesh-	tunishi-	tuniji-	tunila-	tuneel-	tunili-	tunidli-
3.	Ø-	tunsha-	tunash-	tunshi-	tunji-	tunla-	tunal-	tunli-	tundli-
3-3.	a-	atunash-	atunash-	atunshi-	atunji-	atunal-	atunal-	atunli-	atundli-
1.pl.	too-	tuntusha-	tuntoosh-	tuntushi-	tuntuji-	tuntula-	tuntool-	tuntuli-	tuntudli-
2.pl.	yi-	tunaysha-	tunayish-	tunayshi-	tunayji-	tunayla-	tunayil-	tunayli-	tunaydli-
4.	du-	tundush-	tundush-	tunduji-	tunduji-	tundul-	tundul-	tundudli-	tundudli-
Irr-1.sg.	u-x̲a-	toonax̲sha-	toonx̲ash-	toonax̲shi-	toonax̲ji-	toonax̲la-	toonx̲al-	toonax̲li-	toonax̲dli-
Irr-3.	u-Ø-	toonash-	toonash-	toonshi-	toonji-	toonal-	toonal-	toonli-	toondli-
Irr.-3-3	a-u-	atoonash-	atoonash-	atoonshi-	atoonji-	atoonal-	atoonal-	atoonli-	atoondli-

APPENDIX F

Prefix string: *ga-*

Table F-1. Prefix string *ga-*

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	gaxa-	gaxda-	gaxaa-	gaxdi-	gaxsa-	gaxas-	gaxsi-	gaxdzi-
2.sg.	ee-	gee-	gida-	giya-	gidi-	gisa-	gees-	gisi-	gidzi-
3.	Ø-	ga-	gada-	gaa-	gadi-	gasa-	gas-	gasi-	gadzi-
3-3.	a-	aga-	axda-	agaa-	axdi-	aksa-	agas-	aksi-	akdzi-
1.pl.	too-	gatoo-	gatuda-	gatuwa-	gatudi-	gatusa-	gatoos-	gatusi-	gatudzi-
2.pl.	yi-	gay-	gayda-	gayeey-	gaydi-	gaysa-	gayis-	gaysi-	gaydzi-
4.	du-	gadu-	gadu-	gaduwa-	gaduwa-	gadus-	gadus-	gadudzi-	gadudzi-
Irr-1.sg.	u-xa-	gooxa-	gooxda-	---	---	gooxsa-	gooxas-	---	---
Irr-3.	u-Ø-	goo-	gooda-	---	---	goos-	goos-	---	---
Irr.-3-3	a-u-	agoo-	agooda-	---	---	agoos-	agoos-	---	---
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	gaxsha-	gaxash-	gaxshi-	gaxji-	gaxla-	gaxal-	gaxli-	gaxdli-
2.sg.	ee-	gisha-	geesh-	gishi-	giji-	gila-	geel-	gili-	gidli-
3.	Ø-	gasha-	gash-	gashi-	gaji-	gala-	gal-	gali-	gadli-
3-3.	a-	aksha-	agash-	akshi-	akji-	akla-	agal-	akli-	axdli-
1.pl.	too-	gatusha-	gatoosh-	gatushi-	gatuji-	gatula-	gatool-	gatuli-	gatudli-
2.pl.	yi-	gaysha-	gayish-	gayshi-	gayji-	gayla-	gayil-	gayli-	gaydli-
4.	du-	gadush-	gadush-	gaduji-	gaduji-	gadul-	gadul-	gadudli-	gadudli-
Irr-1.sg.	u-xa-	gooxsha-	gooxash-	---	---	gooxla-	gooxal-	---	---
Irr-3.	u-Ø-	goosh-	goosh-	---	---	gool-	gool-	---	---
Irr.-3-3	a-u-	agoosh-	agoosh-	---	---	agool-	agool-	---	---

Table F-2. Prefix string *ga*-with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	kakxa-	kagaxda-	kakxaa-	kagaxdi-	kagaxsa-	kakxas-	kagaxsi-	kagaxdzi-
2.sg.	ee-	kagee-	kagida-	kagiya-	kagidi-	kagisa-	kagees-	kagisi-	kagidzi-
3.	Ø-	kaga-	kakda-	kagaa-	kakdi-	kaksa-	kagas-	kaksi-	kakdzi-
3-3.	a-	akga-	akakda-	akagaa-	akakdi-	akaksa-	akagas-	akaksi-	akakdzi-
1.pl.	too-	kaktoo-	kaktuda-	kaktuwa-	kaktudi-	kaktusa-	kaktoos-	kaktusi-	kaktudzi-
2.pl.	yi-	kagay-	kagayda-	kagayeey-	kagaydi-	kagaysa-	kagayis-	kagaysi-	kagaydzi-
4.	du-	kakdu-	kakdu-	kakduwa-	kakduwa-	kakdus-	kakdus-	kakduzi-	kakdudzi-
Irr.-1.sg.	u-xa-	kakwxa-	kagooxda-	---	---	kagooxsa-	kakwxas-	---	---
Irr.-3.	u-Ø-	kagoo-	kagooda-	---	---	kagoos-	kagoos-	---	---
Irr.-3-3	a-u-	akagoo-	akagooda-	---	---	akagoos-	akagoos-	---	---
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	kagaxsha-	kakxash-	kagaxshi-	kagaxji-	kagaxla-	kakxal-	kagaxli-	kagaxdli-
2.sg.	ee-	kagisha-	kageesh-	kagishi-	kagiji-	kagila-	kageel-	kagili-	kagidli-
3.	Ø-	kaksha-	kagash-	kakshi-	kakji-	kakla-	kagal-	kakli-	kakdli-
3-3.	a-	akaksha-	akagash-	akakshi-	akakji-	akakla-	akagal-	akakli-	akakdli-
1.pl.	too-	kaktusha-	kaktoosh-	kaktushi-	kaktuji-	kaktula-	kaktool-	kaktuli-	kaktudli-
2.pl.	yi-	kagaysha-	kagayish-	kagayshi-	kagayji-	kagayla-	kagayil-	kagayli-	kagaydli-
4.	du-	kakdush-	kakdush-	kakduji-	kakduji-	kakdul-	kakdul-	kakdudli-	kakdudli-
Irr-1.sg.	u-xa-	kagooxsha-	kakwxash-	---	---	kagooxla-	kakwxal-	---	---
Irr-3.	u-Ø-	kagoosh-	kagoosh-	---	---	kagool-	kagool-	---	---
Irr.-3-3	a-u-	akagoosh-	akagoosh-	---	---	akagool-	akagool-	---	---

Table F-3. Prefix string *ga-* with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	jigxa-	jigaxda-	jigxaa-	jigaxdi-	jigaxsa-	jigxas-	jigaxsi-	jigaxdzi-
2.sg.	ee-	jigee-	jigida-	jigiya-	jigidi-	jigisa-	jigees-	jigisi-	jigidzi-
3.	Ø-	jiga-	jikda-	jigaa-	jikdi-	jiksa-	jigas-	jiksi-	jikdzi-
3-3.	a-	ajiga-	ajikda-	ajigaa-	ajikdi-	ajiksa-	ajigas-	ajiksi-	ajikdzi-
1.pl.	too-	jiktoo-	jiktuda-	jiktuwa-	jiktudi-	jiktusa-	jiktoos-	jiktusi-	jiktudzi-
2.pl.	yi-	jigay-	jigayda-	jigayeey-	jigaydi-	jigaysa-	jigayis-	jigaysi-	jigaydzi-
4.	du-	jikdu-	jikdu-	jikduwa-	jikduwa-	jikdus-	jikdus-	jikdudzi-	jikdudzi-
Irr.-1.sg.	u-xa-	jikwxa-	jigooxda-	---	---	jigooxsa-	jikwxas-	---	---
Irr.-3.	u-Ø-	jigoo-	jigooda-	---	---	jigoos-	jigoos-	---	---
Irr.-3-3	a-u-	ajigoo-	ajigooda-	---	---	ajigoos-	ajigoos-	---	---
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	jigaxsha-	jigxash-	jigaxshi-	jigaxji-	jigaxla-	jigxal-	jigaxli-	jigaxdli-
2.sg.	ee-	jigisha-	jigeesh-	jigishi-	jigiji-	jigila-	jigeel-	jigili-	jigidli-
3.	Ø-	jiksha-	jigash-	jikshi-	jikji-	jikla-	jigal-	jikli-	jikdli-
3-3.	a-	ajiksha-	ajigash-	ajikshi-	ajikji-	ajikla-	ajigal-	ajikli-	ajikdli-
1.pl.	too-	jiktusha-	jiktoosh-	jiktushi-	jiktuji-	jiktula-	jiktool-	jiktuli-	jiktudli-
2.pl.	yi-	jigaysha-	jigayish-	jigayshi-	jigayji-	jigayla-	jigayil-	jigayli-	jigaydli-
4.	du-	jikdush-	jikdush-	jikduji-	jikduji-	jikdul-	jikdul-	jikdudli-	jikdudli-
Irr-1.sg.	u-xa-	jigooxsha-	jikwxash-	---	---	jigooxla-	jikwxal-	---	---
Irr-3.	u-Ø-	jigoosh-	jigoosh-	---	---	jigool-	jigool-	---	---
Irr.-3-3	a-u-	ajigoosh-	ajigoosh-	---	---	ajigool-	ajigool-	---	---

Table F-4. Prefix string *ga-* with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	x̲a-	tukx̲a-	tugax̲da-	tukx̲aa-	tugax̲di-	tugax̲sa-	tukx̲as-	tugax̲si-	tugax̲dzi-
2.sg.	ee-	tugee-	tugida-	tugiya-	tugidi-	tugisa-	tugees-	tugisi-	tugidzi-
3.	Ø-	tuga-	tukda-	tugaa-	tukdi-	tuksa-	tugas-	tuksi-	tukdzi-
3-3.	a-	atuga-	atukda-	atugaa-	atukdi-	atuksa-	atugas-	atuksi-	atukdzi-
1.pl.	too-	tuktoo-	tuktuda-	tuktuwa-	tuktudi-	tuktusa-	tuktoos-	tuktusi-	tuktudzi-
2.pl.	yi-	tugay-	tugayda-	tugayeey-	tugaydi-	tugaysa-	tugayis-	tugaysi-	tugaydzi-
4.	du-	tukdu-	tukdu-	tukduwa-	tukduwa-	tukdus-	tukdus-	tukdudzi-	tukdudzi-
Irr.-1.sg.	u-x̲a-	tukwx̲a-	tugoox̲da-	---	---	tugoox̲sa-	tukwx̲as-	---	---
Irr.-3.	u-Ø-	tugoo-	tugooda-	---	---	tugoos-	tugoos-	---	---
Irr.-3-3	a-u-	atugoo-	atugooda-	---	---	atugoos-	atugoos-	---	---
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	x̲a-	tugax̲sha-	tukx̲ash-	tugax̲shi-	tugax̲ji-	tugax̲la-	tukx̲al-	tugax̲li-	tugax̲dli-
2.sg.	ee-	tugisha-	tugeesh-	tugishi-	tugiji-	tugila-	tugeel-	tugili-	tugidli-
3.	Ø-	tuksha-	tugash-	tukshi-	tukji-	tukla-	tugal-	tukli-	tukdli-
3-3.	a-	atuksha-	atugash-	atukshi-	atukji-	atukla-	atugal-	atukli-	atukdli-
1.pl.	too-	tuktusha-	tuktoosh-	tuktushi-	tuktuji-	tuktula-	tuktool-	tuktuli-	tuktudli-
2.pl.	yi-	tugaysha-	tugayish-	tugayshi-	tugayji-	tugayla-	tugayil-	tugayli-	tugaydli-
4.	du-	tukdush-	tukdush-	tukduji-	tukduji-	tukdul-	tukdul-	tukdudli-	tukdudli-
Irr-1.sg.	u-x̲a-	tugoox̲sha-	tukwx̲ash-	---	---	tugoox̲la-	tukwx̲al-	---	---
Irr-3.	u-Ø-	tugoosh-	tugoosh-	---	---	tugool-	tugool-	---	---
Irr.-3-3	a-u-	atugoosh-	atugoosh-	---	---	atugool-	atugool-	---	---

APPENDIX G

Prefix string: *ga-*

Table G-1. Prefix string *ga-*

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	ka-	kada-	kaa-	kadi-	kasa-	kas-	kasi-	kadzi-
2.sg.	ee-	gee-	gida-	giya-	gidi-	gisa-	gees-	gisi-	gidzi-
3.	Ø-	ga-	gada-	gaa-	gadi-	gas-	gas-	gasi-	gadzi-
3-3.	a-	aga-	axda-	agaa-	axdi-	axsa-	agas-	axsi-	axdzi-
1.pl.	too-	gatoo-	gatuda-	gatuwa-	gatudi-	gatusa-	gatoos-	gatusi-	gatudzi-
2.pl.	yi-	gay-	gayda-	gayeey-	gaydi-	gaysa-	gayis-	gaysi-	gaydzi-
4.	du-	gadu-	gadu-	gaduwa-	gaduwa-	gadus-	gadus-	gadudzi-	gadudzi-
Irr-1.sg.	u-xa-	kwa-	kwada-	kwaa-	kwadi-	kwasa-	kwas-	kwasi-	kwadzi-
Irr-3.	u-Ø-	gwa-	gwada-	gwaa-	gwadi-	gwasa-	gwas-	gwasi-	gwadzi-
Irr.-3-3	a-u-	agwa-/ oogа-	axwda-/ ooxda-	agwaa-/ oogaa-	axwdi-/ ooxdi-	axwsa-/ ooxsa-	agwas-/ oogas-	axwsi-/ ooxsi-	axwdzi-/ ooxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	kasha-	kash-	kashi-	kaji-	kala-	kal-	kali-	kadli-
2.sg.	ee-	gisha-	geesh-	gishi-	giji-	gila-	geel-	gili-	gidli-
3.	Ø-	gash-	gash-	gashi-	gaji-	gal-	gal-	gali-	gadli-
3-3.	a-	axsha-	agash-	axshi-	axji-	axla-	agal-	axli-	axdli-
1.pl.	too-	gatusha-	gatoosh-	gatushi-	gatuji-	gatula-	gatool-	gatuli-	gatudli-
2.pl.	yi-	gaysha-	gayish-	gayshi-	gayji-	gayla-	gayil-	gayli-	gaydli-
4.	du-	gadush-	gadush-	gaduji-	gaduji-	gadul-	gadul-	gadudli-	gadudli-
Irr-1.sg.	u-xa-	kwasha-	kwash-	kwashi-	kwaji-	kwala-	kwal-	kwali-	kwadli-
Irr-3.	u-Ø-	gwasha-	gwash-	gwashi-	gwaji-	gwala-	gwal-	gwali-	gwadli-
Irr.-3-3	a-u-	axwsha-/ ooxsha-	agwash-/ oogash-	axwshi-/ ooxshi-	axwji-/ ooxji-	axwla-/ ooxla-	agwal-/ oogal-	axwli-/ ooxli-	axwdli/ ooxdli-

Table G-2. Prefix string *ga-* with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	kaka-	kakada-	kakaa-	kakadi-	kakasa-	kakas-	kakasi-	kakadzi-
2.sg.	ee-	kagee-	kagida-	kagiya-	kagidi-	kagisa-	kagees-	kagisi-	kagidzi-
3.	Ø-	kaga-	kaxda-	kagaa-	kaxdi-	kaxsa-	kagas-	kaxsi-	kaxdzi-
3-3.	a-	akga-	akaxda-	akagaa-	akaxdi-	akaxsa-	akagas-	akaxsi-	akaxdzi-
1.pl.	too-	kaxtoo-	kaxtuda-	kaxtuwa-	kaxtudi-	kaxtusa-	kaxtoos-	kaxtusi-	kaxtudzi-
2.pl.	yi-	kaxyi-	kaxyida-	kaxyeey-	kaxyidi-	kaxyisa-	kaxyis-	kaxyisi-	kaxyidzi-
4.	du-	kaxdu-	kaxdu-	kaxduwa-	kaxduwa-	kaxdus-	kaxdus-	kaxdudzi-	kaxdudzi-
Irr.-1.sg.	u-xa-	kooka-	kookada-	kookaa-	kookadi-	kookasa-	kookas-	kookasi-	kookadzi-
Irr.-3.	u-Ø-	kooga-	kooxda-	koogaa-	kooxdi-	kooxsa-	koogas-	kooxsi-	kooxdzi-
Irr.-3-3	a-u-	akooga-	akooxda-	akoogaa-	akooxdi-	akooxsa-	akoogas-	akooxsi-	akooxdzi-
Thm.-1.sg.	u·-xa-	kuka-	kukada-	kukaa-	kukadi-	kukasa-	kukas-	kukasi-	kukadzi-
Thm.-3.	u·-Ø-	kuga-	kuxda-	kugaa-	kuxdi-	kuxsa-	kugas-	kuxsi-	kuxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	kakasha-	kakash-	kakashi-	kakaji-	kakala-	kakal-	kakali-	kakadli-
2.sg.	ee-	kagisha-	kageesh-	kagishi-	kagiji-	kagila-	kageel-	kagili-	kagidli-
3.	Ø-	kaxsha-	kagash-	kaxshi-	kaxji-	kaxla-	kagal-	kaxli-	kaxdli-
3-3.	a-	akaxsha-	akagash-	akaxshi-	akaxji-	akaxla-	akagal-	akaxli-	akaxdli-
1.pl.	too-	kaxtusha-	kaxtoosh-	kaxtushi-	kaxtuji-	kaxtula-	kaxtool-	kaxtuli-	kaxtudli-
2.pl.	yi-	kaxyisha-	kaxyish-	kaxyishi-	kaxyiji-	kaxyila-	kaxyil-	kaxyili-	kaxyidli-
4.	du-	kaxdush-	kaxdush-	kaxduji-	kaxduji-	kaxdul-	kaxdul-	kaxdudli-	kaxdudli-
Irr-1.sg.	u-xa-	kookasha-	kookash-	kookashi-	kookaji-	kookala-	kookal-	kookali-	kookadli-
Irr-3.	u-Ø-	kooxsha-	koogash-	kooxshi-	kooxji-	kooxla-	koogal-	kooxli-	kooxdli-
Irr.-3-3	a-u-	akooxsha-	akoogash-	akooxshi-	akooxji-	akooxla-	akoogal-	akooxli-	akooxdli-
Thm.-1.sg.	u·-xa-	kukasha-	kukash-	kukashi-	kukaji-	kukala-	kukal-	kukali-	kukadli-
Thm.-3.	u·-Ø-	kuxsha-	kugash-	kuxshi-	kuxji-	kuxla-	kugal-	kuxli-	kuxdli-

Table G-3. Prefix string *ga-* with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	jika-	jikada-	jikaa-	jikadi-	jikasa-	jikas-	jikasi-	jikadzi-
2.sg.	ee-	jigee-	jigida-	jigiya-	jigidi-	jigisa-	jigees-	jigisi-	jigidzi-
3.	Ø-	jiga-	jixda-	jigaa-	jixdi-	jixsa-	jigas-	jixsi-	jixdzi-
3-3.	a-	ajiga-	ajixda-	ajigaa-	ajixdi-	ajixsa-	ajigas-	ajixsi-	ajixdzi-
1.pl.	too-	jixtoo-	jixtuda-	jixtuwa-	jixtudi-	jixtusa-	jixtoos-	jixtusi-	jixtudzi-
2.pl.	yi-	jixyi-	jixyida-	jixyeey-	jixyidi-	jixyisa-	jixyis-	jixyisi-	jixyidzi-
4.	du-	jixdu-	jixdu-	jixduwa-	jixduwa-	jixdus-	jixdus-	jixdudzi-	jixdudzi-
Irr.-1.sg.	u-xa-	jeeka-	jeekada-	jeekaa-	jeekadi-	jeekasa-	jeekas-	jeekasi-	jeekadzi-
Irr.-3.	u-Ø-	jeega-	jeexda-	jeegaa-	jeexdi-	jeexsa-	jeegas-	jeexsi-	jeexdzi-
Irr.-3-3	a-u-	ajeega-	ajeexda-	ajeegaa-	ajeexdi-	ajeexsa-	ajeegas-	ajeexsi-	ajeexdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	jikasha-	jikash-	jikashi-	jikaji-	jikala-	jikal-	jikali-	jikadli-
2.sg.	ee-	jigisha-	jigeesh-	jigishi-	jigiji-	jigila-	jigeel-	jigili-	jigidli-
3.	Ø-	jixsha-	jigash-	jixshi-	jixji-	jixla-	jigal-	jixli-	jixdli-
3-3.	a-	ajixsha-	ajigash-	ajixshi-	ajixji-	ajixla-	ajigal-	ajixli-	ajixdli-
1.pl.	too-	jixtusha-	jixtoosh-	jixtushi-	jixtuji-	jixtula-	jixtool-	jixtuli-	jixtudli-
2.pl.	yi-	jixyisha-	jixyish-	jixyishi-	jixyiji-	jixyila-	jixyil-	jixyili-	jixyidli-
4.	du-	jixdush-	jixdush-	jixduji-	jixduji-	jixdul-	jixdul-	jixdudli-	jixdudli-
Irr-1.sg.	u-xa-	jeekasha-	jeekash-	jeekashi-	jeekaji-	jeekala-	jeekal-	jeekali-	jeekadli-
Irr-3.	u-Ø-	jeexsha-	jeegash-	jeexshi-	jeexji-	jeexla-	jeegal-	jeexli-	jeexdli-
Irr.-3-3	a-u-	ajeexsha-	ajeegash-	ajeexshi-	ajeexji-	ajeexla-	ajeegal-	ajeexli-	ajeexdli-

Table G-4. Prefix string *ga-* with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I-*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	tuka-	tukada-	tukaa-	tukadi-	tukasa-	tukas-	tukasi-	tukadzi-
2.sg.	ee-	tugee-	tugida-	tugiya-	tugidi-	tugisa-	tugees-	tugisi-	tugidzi-
3.	Ø-	tuga-	tuxda-	tugaa-	tuxdi-	tuxsa-	tugas-	tuxsi-	tuxdzi-
3-3.	a-	atuga-	atuxda-	atugaa-	atuxdi-	atuxsa-	atugas-	atuxsi-	atuxdzi-
1.pl.	too-	tuxtoo-	tuxtuda-	tuxtuwa-	tuxtudi-	tuxtusa-	tuxtoos-	tuxtusi-	tuxtudzi-
2.pl.	yi-	tuxyi-	tuxyida-	tuxyeey-	tuxyidi-	tuxyisa-	tuxyis-	tuxyisi-	tuxyidzi-
4.	du-	tuxdu-	tuxdu-	tuxduwa-	tuxduwa-	tuxdus-	tuxdus-	tuxdudzi-	tuxdudzi-
Irr.-1.sg.	u-xa-	tooka-	tookada-	tookaa-	tookadi-	tookasa-	tookas-	tookasi-	tookadzi-
Irr.-3.	u-Ø-	tooga-	tooxda-	toogaa-	tooxdi-	tooxsa-	toogas-	tooxsi-	tooxdzi-
Irr.-3-3	a-u-	atooga-	atooxda-	atoogaa-	atooxdi-	atooxsa-	atoogas-	atooxsi-	atooxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	tukasha-	tukash-	tukashi-	tukaji-	tukala-	tukal-	tukali-	tukadli-
2.sg.	ee-	tugisha-	tugeesh-	tugishi-	tugiji-	tugila-	tugeel-	tugili-	tugidli-
3.	Ø-	tuxsha-	tugash-	tuxshi-	tuxji-	tuxla-	tugal-	tuxli-	tuxdli-
3-3.	a-	atuxsha-	atugash-	atuxshi-	atuxji-	atuxla-	atugal-	atuxli-	atuxdli-
1.pl.	too-	tuxtusha-	tuxtoosh-	tuxtushi-	tuxtuji-	tuxtula-	tuxtool-	tuxtuli-	tuxtudli-
2.pl.	yi-	tuxyisha-	tuxyish-	tuxyishi-	tuxyiji-	tuxyila-	tuxyil-	tuxyili-	tuxyidli-
4.	du-	tuxdush-	tuxdush-	tuxduji-	tuxduji-	tuxdul-	tuxdul-	tuxdudli-	tuxdudli-
Irr-1.sg.	u-xa-	tookasha-	tookash-	tookashi-	tookaji-	tookala-	tookal-	tookali-	tookadli-
Irr-3.	u-Ø-	tooxsha-	toogash-	tooxshi-	tooxji-	tooxla-	toogal-	tooxli-	tooxdli-
Irr.-3-3	a-u-	atooxsha-	atoogash-	atooxshi-	atooxji-	atooxla-	atoogal-	atooxli-	atooxdli-

APPENDIX H

Prefix string: *na-ga-*

Table H-1. Prefix string *na-ga-*

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	nakа-	nakada-	nakaa-	nakadi-	nakasa-	nakas-	nakasi-	nakadzi-
2.sg.	ee-	nagee-	nagida-	nagiya-	nagidi-	nagisa-	nagees-	nagisi-	nagidzi-
3.	Ø-	naga-	naxda-	nagaa-	naxdi-	naxsa-	nagas-	naxsi-	naxdzi-
3-3.	a-	anga-	anaxda-	angaa-	anaxdi-	anaxsa-	anagas-	anaxsi-	anaxdzi-
1.pl.	too-	naxtoo-	naxtuda-	naxtuwa-	naxtudi-	nagatusa-	naxtoos-	naxtusi-	naxtudzi-
2.pl.	yi-	naxyi-	naxyida-	naxyeey-	naxyidi-	naxyisa-	naxyis-	naxyisi-	naxyidzi-
4.	du-	naxdu-	naxdu-	naxduwa-	naxduwa-	naxdus-	naxdus-	naxdudzi-	naxdudzi-
Irr-1.sg.	u-xa-	unka-/ nakwa-	unkada-/ nakwada-	unkaa-/ nakwaa-	unkadi-/ nakwadi-	unkasa-/ nakwasa-	unkas-/ nakwas-	unkasi-/ nakwasi-	unkadzi-/ nakwadzi-
Irr-3.	u-Ø-	unga-/ nagwa-	unaxda-/ naxwda-	ungaa-/ nagwaa-	unaxdi-/ naxwdi-	unaxsa-/ naxwsa-	ungas-/ nagwas-	unaxsi-/ naxwsi-	unaxdzi-/ naxwdzi-
Irr.-3-3	a-u-	oonga-/ angwa-	oonaxda-/ anaxwda-	oongaa-/ angwaa	oonaxdi-/ anaxwdi-	oonaxsa-/ anaxwsa-	oongas-/ angwas-	oonaxsi-/ anaxwsi-	oonaxdzi-/ anaxwdzi-

Table H-1. Prefix string *na-ga-* continued

Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	nakasha-	nakash-	nakashi-	nakaji-	nakala-	nakal-	nakali-	nakadli-
2.sg.	ee-	nagisha-	nageesh-	nagishi-	nagiji-	nagila-	nageel-	nagili-	nagidli-
3.	Ø-	naxsha-	nagash-	naxshi-	naxji-	naxla-	nagal-	naxli-	naxdli-
3-3.	a-	anaxsha-	anagash-	anaxshi-	anaxji-	anaxla-	anagal-	anaxli-	anaxdli-
1.pl.	too-	naxtusha-	naxtoosh-	naxtushi-	naxtuji-	naxtula-	naxtool-	naxtuli-	naxtudli-
2.pl.	yi-	naxyisha-	naxyish-	naxyishi-	naxyiji-	naxyila-	naxyil-	naxyili-	naxyidli-
4.	du-	naxdush-	naxdush-	naxduji-	naxduji-	naxdul-	naxdul-	naxdudli-	naxdudli-
Irr-1.sg.	u-xa-	unkasha-/ nakwasha-	unkash-/ nakwash-	unkashi-/ nakwashi-	unkaji-/ nakwaji-	unkala-/ nakwala-	unkal-/ nakwal-	unkali-/ nakwali-	unkadli/ nakwadli-
Irr-3.	u-Ø-	unaxsha-/ naxwsha-	ungash-/ nagwash-	unaxshi-/ naxwshi-	unaxji-/ naxwji-	unaxla-/ naxwla-	ungal-/ nagwal-	unaxli-/ naxwli-	unaxdli-/ naxwdli-
Irr.-3-3	a-u-	oonaxsha-/ anaxwsha-	oongash-/ angwash-	oonaxshi-/ anaxwshi-	oonaxji-/ anaxwji-	oonaxla-/ anaxwla-	oongal-/ angwal-	oonaxli-/ anaxwli-	oonaxdli-/ anaxwdli-

Table H-2. Prefix string *na-ga-* with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	kanka-	kankada-	kankaa-	kankadi-	kankasa-	kankas-	kankasi-	kankadzi-
2.sg.	ee-	kangee-	kangida-	kangiya-	kangidi-	kangisa-	kangees-	kangisi-	kangidzi-
3.	Ø-	kanga-	kanaxda-	kangaa-	kanaxdi-	kanaxsa-	kangas-	kanaxsi-	kanaxdzi-
3-3.	a-	akanga-	akanaxda-	akangaa-	akanaxdi-	akanaxsa-	akangas-	akanaxsi-	akanaxdzi-
1.pl.	too-	kanaxtoo-	kanaxtuda-	kanaxtuwa-	kanaxtudi-	kanaxtusa-	kanaxtoos-	kanaxtusi-	kanaxtudzi-
2.pl.	yi-	kanaxyi-	kanaxyida-	kanaxyeey-	kanaxyidi-	kanaxyisa-	kanaxyis-	kanaxyisi-	kanaxyidzi-
4.	du-	kanaxdu-	kanaxdu-	kanaxduwa-	kanaxduwa-	kanaxdus-	kanaxdus-	kanaxdudzi-	kanaxdudzi-
Irr.-1.sg.	u-xa-	koonka-	koonkada-	koonkaa-	koonkadi-	koonkasa-	koonkas-	koonkasi-	koonkadzi-
Irr.-3.	u-Ø-	koonga-	koonaxda-	koongaa-	koonaxdi-	koonaxsa-	koongas-	koonaxsi-	koonaxdzi-
Irr.-3-3	a-u-	akoonga-	akoonaxda-	akoongaa-	akoonaxdi-	akoonaxsa-	akoongas-	akoonaxsi-	akoonaxdzi-
Thm.-1.sg.	u·-xa-	kunka-	kunkada-	kunkaa-	kunkadi-	kunkasa-	kunkas-	kunkasi-	kunkadzi-
Thm.-3.	u·-Ø-	kunga-	kunaxda-	kungaa-	kunaxdi-	kunaxsa-	kungas-	kunaxsi-	kunaxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	kankasha-	kankash-	kankashi-	kankaji-	kankala-	kankal-	kankali-	kankadli-
2.sg.	ee-	kangisha-	kangeesh-	kangishi-	kangiji-	kangila-	kangeel-	kangili-	kangidli-
3.	Ø-	kanaxsha-	kangash-	kanaxshi-	kanaxji-	kanaxla-	kangal-	kanaxli-	kanaxdli-
3-3.	a-	akanaxsha-	akangash-	akanaxshi-	akanaxji-	akanaxla-	akangal-	akanaxli-	akanaxdli-
1.pl.	too-	kanaxtusha-	kanaxtoosh-	kanaxtushi-	kanaxtuji-	kanaxtula-	kanaxtool-	kanaxtuli-	kanaxtudli-
2.pl.	yi-	kanaxyisha-	kanaxyish-	kanaxyishi-	kanaxyiji-	kanaxyila-	kanaxyil-	kanaxyili-	kanaxyidli-
4.	du-	kanaxdush-	kanaxdush-	kanaxduji-	kanaxduji-	kanaxdul-	kanaxdul-	kanaxdudli-	kanaxdudli-
Irr-1.sg.	u-xa-	koonkasha-	koonkash-	koonkashi-	koonkaji-	koonkala-	koonkal-	koonkali-	koonkadli-
Irr-3.	u-Ø-	koonaxsha-	koongash-	koonaxshi-	koonaxji-	koonaxla-	koongal-	koonaxli-	koonaxdli-
Irr.-3-3	a-u-	akoonaxsha-	akoongash-	akoonaxshi-	akoonaxji-	akoonaxla-	akoongal-	akoonaxli-	akoonaxdli-
Thm.-1.sg.	u·-xa-	kunkasha-	kunkash-	kunkashi-	kunkaji-	kunkala-	kunkal-	kunkali-	kunkadli-
Thm.-3.	u·-Ø-	kunaxsha-	kungash-	kunaxshi-	kunaxji-	kunaxla-	kungal-	kunaxli-	kunaxdli-

Table H-3. Prefix string *na-ga-* with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	jinka-	jinkada-	jinkaa-	jinkadi-	jinkasa-	jinkas-	jinkasi-	jinkadzi-
2.sg.	ee-	jingee-	jingida-	jingiya-	jingidi-	jingisa-	jingees-	jingisi-	jingidzi-
3.	Ø-	jinga-	jinaxda-	jingaa-	jinaxdi-	jinaxsa-	jingas-	jinaxsi-	jinaxdzi-
3-3.	a-	ajinga-	ajinaxda-	ajingaa-	ajinaxdi-	ajinaxsa-	ajingas-	ajinaxsi-	ajinaxdzi-
1.pl.	too-	jinaxtoo-	jinaxtuda-	jinaxtuwa-	jinaxtudi-	jinaxtusa-	jinaxtoos-	jinaxtusi-	jinaxtudzi-
2.pl.	yi-	jinaxyi-	jinaxyida-	jinaxyeey-	jinaxyidi-	jinaxyisa-	jinaxyis-	jinaxyisi-	jinaxyidzi-
4.	du-	jinaxdu-	jinaxdu-	jinaxduwa-	jinaxduwa-	jindaxdus-	jinaxdus-	jinaxdudzi-	jinaxdudzi-
Irr.-1.sg.	u-xa-	jeenka-	jeenkada-	jeenkaa-	jeenkadi-	jeenkasa-	jeenkas-	jeenkasi-	jeenkadzi-
Irr.-3.	u-Ø-	jeenga-	jeenaxda-	jeengaa-	jeenaxdi-	jeenaxsa-	jeengas-	jeenaxsi-	jeenaxdzi-
Irr.-3-3	a-u-	ajeenga-	ajeenaxda-	ajeengaa-	ajeenaxdi-	ajeenaxsa-	ajeengas-	ajeenaxsi-	ajeenaxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	jinkasha-	jinkash-	jinkashi-	jinkaji-	jinkala-	jinkal-	jinkali-	jinkadli-
2.sg.	ee-	jingisha-	jingeesh-	jingishi-	jingiji-	jingila-	jingeel-	jingili-	jingidli-
3.	Ø-	jinaxsha-	jingash-	jinaxshi-	jinaxji-	jinaxla-	jingal-	jinaxli-	jinaxdli-
3-3.	a-	ajinaxsha-	ajingash-	ajinaxshi-	ajinaxji-	ajinaxla-	ajingal-	ajinaxli-	ajinaxdli-
1.pl.	too-	jinaxtusha-	jinaxtoosh-	jinaxtushi-	jinaxtuji-	jinaxtula-	jinaxtool-	jinaxtuli-	jinaxtudli-
2.pl.	yi-	jinaxyisha-	jinaxyish-	jinaxyishi-	jinaxyiji-	jinaxyila-	jinaxyil-	jinaxyili-	jinaxyidli-
4.	du-	jinaxdush-	jinaxdush-	jinaxduji-	jinaxduji-	jinaxdul-	jinaxdul-	jinaxdudli-	jinaxdudli-
Irr-1.sg.	u-xa-	jeenkasha-	jeenkash-	jeenkashi-	jeenkaji-	jeenkala-	jeenkal-	jeenkali-	jeenkadli-
Irr-3.	u-Ø-	jeenaxsha-	jeengash-	jeenaxshi-	jeenaxji-	jeenaxla-	jeengal-	jeenaxli-	jeenaxdli-
Irr.-3-3	a-u-	ajeenaxsha-	ajeengash-	ajeenaxshi-	ajeenaxji-	ajeenaxla-	ajeengal-	ajeenaxli-	ajeenaxdli-

Table H-4. Prefix string *na-ga-* with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:	*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*	
1.sg.	xa-	tunka-	tunkada-	tunkaa-	tunkadi-	tunkasa-	tunkas-	tunkasi-	tunkadzi-
2.sg.	ee-	tungee-	tungida-	tungiya-	tungidi-	tungisa-	tungees-	tungisi-	tungidzi-
3.	Ø-	tunga-	tunaxda-	tungaa-	tunaxdi-	tunaxsa-	tungas-	tunaxsi-	tunaxdzi-
3-3.	a-	atunga-	atunaxda-	atungaa-	atunaxdi-	atunaxsa-	atungas-	atunaxsi-	atunaxdzi-
1.pl.	too-	tunaxtoo-	tunaxtuda-	tunaxtuwa-	tunaxtudi-	tunaxtusa-	tunaxtoos-	tunaxtusi-	tunaxtudzi-
2.pl.	yi-	tunaxyi-	tunaxyida-	tunaxyeey-	tunaxyidi-	tunaxyisa-	tunaxyis-	tunaxyisi-	tunaxyidzi-
4.	du-	tunaxdu-	tunaxdu-	tunaxduwa-	tunaxduwa-	tunaxdus-	tunaxdus-	tunaxdudzi-	tunaxdudzi-
Irr.-1.sg.	u-xa-	toonka-	toonkada-	toonkaa-	toonkadi-	toonkasa-	toonkas-	toonkasi-	toonkadzi-
Irr.-3.	u-Ø-	toonga-	toonaxda-	toongaa-	toonaxdi-	toonaxsa-	toongas-	toonaxsi-	toonaxdzi-
Irr.-3-3	a-u-	atoonga-	atoonaxda-	atoongaa-	atoonaxdi-	atoonaxsa-	atoongas-	atoonaxsi-	atoonaxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:	*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*	
1.sg.	xa-	tunkasha-	tunkash-	tunkashi-	tunkaji-	tunkala-	tunkal-	tunkali-	tunkadli-
2.sg.	ee-	tungisha-	tungeesh-	tungishi-	tungiji-	tungila-	tungeel-	tungili-	tungidli-
3.	Ø-	tunaxsha-	tungash-	tunaxshi-	tunaxji-	tunaxla-	tungal-	tunaxli-	tunaxdli-
3-3.	a-	atunaxsha-	atungash-	atunaxshi-	atunaxji-	atunaxla-	atungal-	atunaxli-	atunaxdli-
1.pl.	too-	tunaxtusha-	tunaxtoosh-	tunaxtushi-	tunaxtuji-	tunaxtula-	tunaxtool-	tunaxtuli-	tunaxtudli-
2.pl.	yi-	tunaxyisha-	tunaxyish-	tunaxyishi-	tunaxyiji-	tunaxyila-	tunaxyil-	tunaxyili-	tunaxyidli-
4.	du-	tunaxdush-	tunaxdush-	tunaxduji-	tunaxduji-	tunaxdul-	tunaxdul-	tunaxdudli-	tunaxdudli-
Irr-1.sg.	u-xa-	toonkasha-	toonkash-	toonkashi-	toonkaji-	toonkala-	toonkal-	toonkali-	toonkadli-
Irr-3.	u-Ø-	toonaxsha-	toongash-	toonaxshi-	toonaxji-	toonaxla-	toongal-	toonaxli-	toonaxdli-
Irr.-3-3	a-u-	atoonaxsha-	atoongash-	atoonaxshi-	atoonaxji-	atoonaxla-	atoongal-	atoonaxli-	atoonaxdli-

APPENDIX I

Prefix string: *ga-ga-*

Table I-1. Prefix string *ga-ga-*

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	gaka-	gakada-	gakaa-	gakadi-	gakasa-	gakas-	gakasi-	gakadzi-
2.sg.	ee-	gagee-	gagida-	gagiya-	gagidi-	gagisa-	gagees-	gagisi-	gagidzi-
3.	Ø-	gaga-	gaxda-	gagaa-	gaxdi-	gaxsa-	gagas-	gaxsi-	gaxdzi-
3-3.	a-	akga-	agaxda-	akgaa-	agaxdi-	agaxsa-	akgas-	agaxsi-	agaxdzi-
1.pl.	too-	gaxtoo-	gaxtuda-	gaxtuwa-	gaxtudi-	gaxtusa-	gaxtoos-	gaxtusi-	gaxtudzi-
2.pl.	yi-	gaxyi-	gaxyida-	gaxyeey-	gaxyidi-	gaxyisa-	gaxyis-	gaxyisi-	gaxyidzi-
4.	du-	gaxdu-	gaxdu-	gaxduwa-	gaxduwa-	gaxdus-	gaxdus-	gaxdudzi-	gaxdudzi-
Irr-1.sg.	u-xa-	gooka-	gookada-	gookaa-	gookadi-	gookasa-	gookas-	gookasi-	gookadzi-
Irr-3.	u-Ø-	googa-	gooxda-	googaa-	gooxdi-	gooxsa-	googas-	gooxsi-	gooxdzi-
Irr.-3-3	a-u-	akgwa-	agooxda-	akgwaa-	agooxdi-	agooxsa-	akgwas-	agooxsi-	agooxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	gakasha-	gakash-	gakashi-	gakaji-	gakala-	gakal-	gakali-	gakadli-
2.sg.	ee-	gagisha-	gageesh-	gagishi-	gagiji-	gagila-	gageel-	gagili-	gagidli-
3.	Ø-	gaxsha-	gagash-	gaxshi-	gaxji-	gaxla-	gagal-	gaxli-	gaxdli-
3-3.	a-	agaxsha-	akgash-	agaxshi-	agaxji-	agaxla-	akgal-	agaxli-	agaxdli-
1.pl.	too-	gaxtusha-	gaxtoosh-	gaxtushi-	gaxtuji-	gaxtula-	gaxtool-	gaxtuli-	gaxtudli-
2.pl.	yi-	gaxyisha-	gaxyish-	gaxyishi-	gaxyiji-	gaxyila-	gaxyil-	gaxyili-	gaxyidli-
4.	du-	gaxdush-	gaxdush-	gaxduji-	gaxduji-	gaxdul-	gaxdul-	gaxdudli-	gaxdudli-
Irr-1.sg.	u-xa-	gookasha-	gookash-	gookashi-	gookaji-	gookala-	gookal-	gookali-	gookadli-
Irr-3.	u-Ø-	gooxsha-	googash-	gooxshi-	gooxji-	gooxla-	googal-	gooxli-	gooxdli-
Irr.-3-3	a-u-	agooxsha-	akgwash-	agooxshi-	agooxji-	agooxla-	akgwal-	agooxli-	agooxdli-

Table I-2. Prefix string *ga-ga-* with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	kakka-	kakkada-	kakkaa-	kakkadi-	kakkasa-	kakkas-	kakkasi-	kakkadzi-
2.sg.	ee-	kakgee-	kakgida-	kakgiya-	kakgidi-	kakgisa-	kakgees-	kakgisi-	kakgidzi-
3.	Ø-	kakga-	kagaxda-	kakgaa-	kagaxdi-	kagaxsa-	kakgas-	kagaxsi-	kagaxdzi-
3-3.	a-	akakga-	akagaxda-	akakgaa-	akagaxdi-	akagaxsa-	akakgas-	akagaxsi-	akagaxdzi-
1.pl.	too-	kagaxtoo-	kagaxtuda-	kagaxtuwa-	kagaxtudi-	kagaxtusa-	kagaxtoos-	kagaxtusi-	kagaxtudzi-
2.pl.	yi-	kagaxyi-	kagaxyida-	kagaxyeey-	kagaxyidi-	kagaxyisa-	kagaxyis-	kagaxyisi-	kagaxyidzi-
4.	du-	kagaxdu-	kagaxdu-	kagaxduwa-	kagaxduwa-	kagaxdus-	kagaxdus-	kagaxdudzi-	kagaxdudzi-
Irr.-1.sg.	u-xa-	kakwka-	kakwkada-	kakwkaa-	kakwkadi-	kakwkasa-	kakwkas-	kakwkasi-	kakwkadzi-
Irr.-3.	u-Ø-	kakwga-	kagooxda-	kakwgaa-	kagooxdi-	kagooxsa-	kakwgas-	kagooxsi-	kagooxdzi-
Irr.-3-3	a-u-	akakwga-	akagooxda-	akakwgaa-	akagooxdi-	akagooxsa-	akakwgas-	akagooxsi-	akagooxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	kakkasha-	kakkash-	kakkashi-	kakkaji-	kakkala-	kakkal-	kakkali-	kakkadli-
2.sg.	ee-	kakgisha-	kakgeesh-	kakgishi-	kakgiji-	kakgila-	kakgeel-	kakgili-	kakgidli-
3.	Ø-	kagaxsha-	kakgash-	kagaxshi-	kagaxji-	kagaxla-	kakgal-	kagaxli-	kagaxdli-
3-3.	a-	akagaxsha-	akakgash-	akagaxshi-	akagaxji-	akagaxla-	akakgal-	akagaxli-	akagaxdli-
1.pl.	too-	kagaxtusha-	kagaxtoosh-	kagaxtushi-	kagaxtuji-	kagaxtula-	kagaxtool-	kagaxtuli-	kagaxtudli-
2.pl.	yi-	kagaxyisha-	kagaxyish-	kagaxyishi-	kagaxyiji-	kagaxyila-	kagaxyil-	kagaxyili-	kagaxyidli-
4.	du-	kagaxdush-	kagaxdush-	kagaxduji-	kagaxduji-	kagaxdul-	kagaxdul-	kagaxdudli-	kagaxdudli-
Irr-1.sg.	u-xa-	kakwkasha-	kakwkash-	kakwkashi-	kakwkaji-	kakwkala-	kakwkal-	kakwkali-	kakwkadli-
Irr-3.	u-Ø-	kagooxsha-	kakwgash-	kagooxshi-	kagooxji-	kagooxla-	kakwgal-	kagooxli-	kagooxdli-
Irr.-3-3	a-u-	akagooxsha-	akakwgash-	akagooxshi-	akagooxji-	akagooxla-	akakwgal-	akagooxli-	akagooxdli-

Table I-3. Prefix string *ga-ga-* with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	jikka-	jikkada-	jikkaa-	jikkadi-	jikkasa-	jikkas-	jikkasi-	jikkadzi-
2.sg.	ee-	jikgee-	jikgida-	jikgiya-	jikgidi-	jikgisa-	jikgees-	jikgisi-	jikgidzi-
3.	Ø-	jikga-	jigaxda-	jikgaa-	jigaxdi-	jigaxsa-	jikgas-	jigaxsi-	jigaxdzi-
3-3.	a-	ajikga-	ajigaxda-	ajikgaa-	ajigaxdi-	ajigaxsa-	ajikgas-	ajigaxsi-	ajigaxdzi-
1.pl.	too-	jigaxtoo-	jigaxtuda-	jigaxtuwa-	jigaxtudi-	jigaxtusa-	jigaxtoos-	jigaxtusi-	jigaxtudzi-
2.pl.	yi-	jigaxyi-	jigaxyida-	jigaxyeey-	jigaxyidi-	jigaxyisa-	jigaxyis-	jigaxyisi-	jigaxyidzi-
4.	du-	jigaxdu-	jigaxdu-	jigaxduwa-	jigaxduwa-	jigaxdus-	jigaxdus-	jigaxdudzi-	jigaxdudzi-
Irr.-1.sg.	u-xa-	jikwka-	jikwkada-	jikwkaa-	jikwkadi-	jikwkasa-	jikwkas-	jikwkasi-	jikwkadzi-
Irr.-3.	u-Ø-	jikwga-	jigooxda-	jikwgaa-	jigooxdi-	jigooxsa-	jikwgas-	jigooxsi-	jigooxdzi-
Irr.-3-3	a-u-	ajikwga-	ajigooxda-	ajikwgaa-	ajigooxdi-	ajigooxsa-	ajikwgas-	ajigooxsi-	ajigooxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	jikkasha-	jikkash-	jikkashi-	jikkaji-	jikkala-	jikkal-	jikkali-	jikkadli-
2.sk.	ee-	jikgisha-	jikgeesh-	jikgishi-	jikgiji-	jikgila-	jikgeel-	jikgili-	jikgidli-
3.	Ø-	jigaxsha-	jikgash-	jigaxshi-	jigaxji-	jigaxla-	jikgal-	jigaxli-	jigaxdli-
3-3.	a-	ajigaxsha-	ajikgash-	ajigaxshi-	ajigaxji-	ajigaxla-	ajikgal-	ajigaxli-	ajigaxdli-
1.pl.	too-	jigaxtusha-	jigaxtoosh-	jigaxtushi-	jigaxtuji-	jigaxtula-	jigaxtool-	jigaxtuli-	jigaxtudli-
2.pl.	yi-	jigaxyisha-	jigaxyish-	jigaxyishi-	jigaxyiji-	jigaxyila-	jigaxyil-	jigaxyili-	jigaxyidli-
4.	du-	jigaxdush-	jigaxdush-	jigaxduji-	jigaxduji-	jigaxdul-	jigaxdul-	jigaxdudli-	jigaxdudli-
Irr-1.sg.	u-xa-	jikwkasha-	jikwkash-	jikwkashi-	jikwkaji-	jikwkala-	jikwkal-	jikwkali-	jikwkadli-
Irr-3.	u-Ø-	jigooxsha-	jikwgash-	jigooxshi-	jigooxji-	jigooxla-	jikwgal-	jigooxli-	jigooxdli-
Irr.-3-3	a-u-	ajigooxsha-	ajikwgash-	ajigooxshi-	ajigooxji-	ajigooxla-	ajikwgal-	ajigooxli-	ajigooxdli-

Table I-4. Prefix string *ga-ga-* with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	tukka-	tukkada-	tukkaa-	tukkadi-	tukkasa-	tukkas-	tukkasi-	tukkadzi-
2.sg.	ee-	tukgee-	tukgida-	tukgiya-	tukgidi-	tukgisa-	tukgees-	tukgisi-	tukgidzi-
3.	Ø-	tukga-	tugaxda-	tukgaa-	tugaxdi-	tugaxsa-	tukgas-	tugaxsi-	tugaxdzi-
3-3.	a-	atukga-	atugaxda-	atukgaa-	atugaxdi-	atugaxsa-	atukgas-	atugaxsi-	atugaxdzi-
1.pl.	too-	tugaxtoo-	tugaxtuda-	tugaxtuwa-	tugaxtudi-	tugaxtusa-	tugaxtoos-	tugaxtusi-	tugaxtudzi-
2.pl.	yi-	tugaxyi-	tugaxyida-	tugaxyeey-	tugaxyidi-	tugaxyisa-	tugaxyis-	tugaxyisi-	tugaxyidzi-
4.	du-	tugaxdu-	tugaxdu-	tugaxduwa-	tugaxduwa-	tugaxdus-	tugaxdus-	tugaxdudzi-	tugaxdudzi-
Irr.-1.sg.	u-xa-	tukwka-	tukwkada-	tukwkaa-	tukwkadi-	tukwkasa-	tukwkas-	tukwkasi-	tukwkadzi-
Irr.-3.	u-Ø-	tukwga-	tugooxda-	tukwgaa-	tugooxdi-	tugooxsa-	tukwgas-	tugooxsi-	tugooxdzi-
Irr.-3-3	a-u-	atukwga-	atugooxda-	atukwgaa-	atugooxdi-	atugooxsa-	atukwgas-	atugooxsi-	atugooxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	tukkasha-	tukkash-	tukkashi-	tukkaji-	tukkala-	tukkal-	tukkali-	tukkadli-
2.sg.	ee-	tukgisha-	tukgeesh-	tukgishi-	tukgiji-	tukgila-	tukgeel-	tukgili-	tukgidli-
3.	Ø-	tugaxsha-	tukgash-	tugaxshi-	tugaxji-	tugaxla-	tukgal-	tugaxli-	tugaxdli-
3-3.	a-	atugaxsha-	atukgash-	atugaxshi-	atugaxji-	atugaxla-	atukgal-	atugaxli-	atugaxdli-
1.pl.	too-	tugaxtusha-	tugaxtoosh-	tugaxtushi-	tugaxtuji-	tugaxtula-	tugaxtool-	tugaxtuli-	tugaxtudli-
2.pl.	yi-	tugaxyisha-	tugaxyish-	tugaxyishi-	tugaxyiji-	tugaxyila-	tugaxyil-	tugaxyili-	tugaxyidli-
4.	du-	tugaxdush-	tugaxdush-	tugaxduji-	tugaxduji-	tugaxdul-	tugaxdul-	tugaxdudli-	tugaxdudli-
Irr-1.sg.	u-xa-	tukwkasha-	tukwkash-	tukwkashi-	tukwkaji-	tukwkala-	tukwkal-	tukwkali-	tukwkadli-
Irr-3.	u-Ø-	tugooxsha-	tukwgash-	tugooxshi-	tugooxji-	tugooxla-	tukwgal-	tugooxli-	tugooxdli-
Irr.-3-3	a-u-	atugooxsha-	atukwgash-	atugooxshi-	atugooxji-	atugooxla-	atukwgal-	atugooxli-	atugooxdli-

APPENDIX J

Prefix string: *ga-ga-*

Table J-1. Prefix string *ga-ga-*

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	kaaka-	kaakada-	kaakaa-	kaakadi-	kaakasa-	kaakas-	kaakasi-	kaakadzi-
2.sg.	ee-	gaagee-	gaagida-	gaagiya-	gaagidi-	gaagisa-	gaagees-	gaagisi-	gaagidzi-
3.	Ø-	gaaga-	gaaxda-	gaagaa-	gaaxdi-	gaaxsa-	gaagas-	gaaxsi-	gaaxdzi-
3-3.	a-	agaaga-	agaaxda-	agaagaa-	agaaxdi-	agaaxsa-	agaagas-	agaaxsi-	agaaxdzi-
1.pl.	too-	gaaxtoo-	gaaxtuda-	gaaxtuwa-	gaaxtudi-	gaaxtusa-	gaaxtoos-	gaaxtusi-	gaaxtudzi-
2.pl.	yi-	gaaxyi-	gaaxyida-	gaaxyeey-	gaaxyidi-	gaaxyisa-	gaaxyis-	gaaxyisi-	gaaxyidzi-
4.	du-	gaaxdu-	gaaxdu-	gaaxduwa-	gaaxduwa-	gaaxdus-	gaaxdus-	gaaxdudzi-	gaaxdudzi-
Irr-1.sg.	u-xa-	kwaaka-	kwaakada-	kwaakaa-	kwaakadi-	kwaakasa-	kwaakas-	kwaakasi-	kwaakadzi-
Irr-3.	u-Ø-	gwaaga-/ gaagwa-/ googa-	gwaaxda-/ gaaxwda-/ gooxda-	gwaagaa-/ gaagwaa-/ googaa-	gwaaxdi-/ gaaxwdi-/ gooxdi-	gwaaxsa-/ gaaxwsa-/ gooxsa-	gwaagas-/ gaagwas-/ googas-	gwaaxsi-/ gaaxwsi-/ gooxsi-	gwaaxdzi-/ gaaxwdzi-/ gooxdzi-
Irr.-3-3	a-u-	agwaaga-/ agaagwa-/ oogaaga-	agwaaxda-/ agaaxwda-/ oogaaxda-	agwaagaa-/ agaagwaa-/ oogaagaa-	agwaaxdi-/ agaaxwdi-/ oogaaxdi-	agwaaxsa-/ agaaxwsa-/ oogaaxsa-	agwaagas-/ agaagwas-/ oogaagas-	agwaaxsi-/ agaaxwsi-/ oogaaxsi-	agwaaxdzi-/ agaaxwdzi-/ oogaaxdzi-

Table J-1. Prefix string *ga-ga-* continued

Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	kaakasha-	kaakash-	kaakashi-	kaakaji-	kaakala-	kaakal-	kaakali-	kaakadli-
2.sg.	ee-	gaagisha-	gaageesh-	gaagishi-	gaagiji-	gaagila-	gaageel-	gaagili-	gaagidli-
3.	Ø-	gaaxsha-	gaagash-	gaaxshi-	gaaxji-	gaaxla-	gaagal-	gaaxli-	gaaxdli-
3-3.	a-	agaaxsha-	agaagash-	agaaxshi-	agaaxji-	agaaxla-	agaagal-	agaaxli-	agaaxdli-
1.pl.	too-	gaaxtusha-	gaaxtoosh-	gaaxtushi-	gaaxtuji-	gaaxtula-	gaaxtool-	gaaxtuli-	gaaxtudli-
2.pl.	yi-	gaaxyisha-	gaaxyish-	gaaxyishi-	gaaxyiji-	gaaxyila-	gaaxyil-	gaaxyili-	gaaxyidli-
4.	du-	gaaxdush-	gaaxdush-	gaaxduji-	gaaxduji-	gaaxdul-	gaaxdul-	gaaxdudli-	gaaxdudli-
Irr-1.sg.	u-xa-	kwaakasha-	kwaakash-	kwaakashi-	kwaakaji-	kwaakala-	kwaakal-	kwaakali-	kwaakadli-
Irr-3.	u-Ø-	gwaaxsha-/ gaaxwsha-/ gooxsha-	gwaagash-/ gaagwash-/ googash-	gwaaxshi-/ gaaxwshi-/ gooxshi-	gwaaxji-/ gaaxwji-/ gooxji-	gwaaxla-/ gaaxwla-/ gooxla-	gwaagal-/ gaagwal-/ googal-	gwaaxli-/ gaaxwli-/ gooxli-	gwaaxdli-/ gaaxwdli-/ gooxdli-
Irr.-3-3	a-u-	agwaaxsha-/ agaaxwsha-/ oogaaxsha-	agwaagash-/ agaagwash-/ oogaagash-	agwaaxshi-/ agaaxwshi-/ oogaaxshi-	agwaaxji-/ agaaxwji-/ oogaaxji-	agwaaxla-/ agaaxwla-/ oogaaxla-	agwaagal-/ agaagwal-/ oogaagal-	agwaaxli-/ agaaxwli-/ oogaaxli-	agwaaxdli-/ agaaxwdli-/ oogaaxdli-

Table J-2. Prefix string *ga-ga-* with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	kakaaka-	kakaakada-	kakaakaa-	kakaakadi-	kakaakasa-	kakaakas-	kakaakasi-	kakaakadzi-
2.sg.	ee-	kagaagee-	kagaagida-	kagaagiya-	kagaagidi-	kagaagisa-	kagaagees-	kagaagisi-	kagaagidzi-
3.	Ø-	kagaaga-	kagaaxda-	kagaagaa-	kagaaxdi-	kagaaxsa-	kagaagas-	kagaaxsi-	kagaaxdzi-
3-3.	a-	akagaaga-	akagaaxda-	akagaagaa-	akagaaxdi-	akagaaxsa-	akagaagas-	akagaaxsi-	akagaaxdzi-
1.pl.	too-	kagaaxtoo-	kagaaxtuda-	kagaaxtuwa-	kagaaxtudi-	kagaaxtusa-	kagaaxtoos-	kagaaxtusi-	kagaaxtudzi-
2.pl.	yi-	kagaaxyi-	kagaaxyida-	kagaaxyeey-	kagaaxyidi-	kagaaxyisa-	kagaaxyis-	kagaaxyisi-	kagaaxyidzi-
4.	du-	kagaaxdu-	kagaaxdu-	kagaaxduwa-	kagaaxduwa-	kagaaxdus-	kagaaxdus-	kagaaxdudzi-	kagaaxdudzi-
Irr.-1.sg.	u-xa-	kookaaka-	kookaakada-	kookaakaa-	kookaakadi-	kookaakasa-	kookaakas-	kookaakasi-	kookaakadzi-
Irr.-3.	u-Ø-	koogaaga-	koogaaxda-	koogaagaa-	koogaaxdi-	koogaaxsa-	koogaagas-	koogaaxsi-	koogaaxdzi-
Irr.-3-3	a-u-	akoogaaga-	akoogaaxda-	akoogaagaa-	akoogaaxdi-	akoogaaxsa-	akoogaagas-	akoogaaxsi-	akoogaaxdzi-
Thm.-1.sg.	u·-xa-	kukaaka-	kukaakada-	kukaakaa-	kukaakadi-	kukaakasa-	kukaakas-	kukaakasi-	kukaakadzi-
Thm.-3.	u·-Ø-	kugaaga-	kugaaxda-	kugaagaa-	kugaaxdi-	kugaaxsa-	kugaagas-	kugaaxsi-	kugaaxdzi-

Table J-2. Prefix string *ga-ga-* with *Ca-* or *Ce-* thematic prefix (illustrated here with the prefix *ka-* 'surface') continued

Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	kakaakasha-	kakaakash-	kakaakashi-	kakaakaji-	kakaakala-	kakaakal-	kakaakali-	kakaakadli-
2.sg.	ee-	kagaagisha-	kagaageesh-	kagaagishi-	kagaagiji-	kagaagila-	kagaageel-	kagaagili-	kagaagidli-
3.	Ø-	kagaaxsha-	kagaagash-	kagaaxshi-	kagaaxji-	kagaaxla-	kagaagal-	kagaaxli-	kagaaxdli-
3-3.	a-	akagaaxsha-	akagaagash-	akagaaxshi-	akagaaxji-	akagaaxla-	akagaagal-	akagaaxli-	akagaaxdli-
1.pl.	too-	kagaaxtusha-	kagaaxtoosh-	kagaaxtushi-	kagaaxtuji-	kagaaxtula-	kagaaxtool-	kagaaxtuli-	kagaaxtudli-
2.pl.	yi-	kagaaxyisha-	kagaaxyish-	kagaaxyishi-	kagaaxyiji-	kagaaxyila-	kagaaxyil-	kagaaxyili-	kagaaxyidli-
4.	du-	kagaaxdush-	kagaaxdush-	kagaaxduji-	kagaaxduji-	kagaaxdul-	kagaaxdul-	kagaaxdudli-	kagaaxdudli-
Irr-1.sg.	u-xa-	kookaakasha-	kookaakash-	kookaakashi-	kookaakaji-	kookaakala-	kookaakal-	kookaakali-	kookaakadli-
Irr-3.	u-Ø-	koogaaxsha-	koogaagash-	koogaaxshi-	koogaaxji-	koogaaxla-	koogaagal-	koogaaxli-	koogaaxdli-
Irr.-3-3	a-u-	akoogaaxsha-	akoogaagash-	akoogaaxshi-	akoogaaxji-	akoogaaxla-	akoogaagal-	akoogaaxli-	akoogaaxdli-
Thm.-1.sg.	u·-xa-	kukaakasha-	kukaakash-	kukaakashi-	kukaakaji-	kukaakala-	kukaakal-	kukaakali-	kukaakadli-
Thm.-3.	u·-Ø-	kugaaxsha-	kugaagash-	kugaaxshi-	kugaaxji-	kugaaxla-	kugaagal-	kugaaxli-	kugaaxdli-

Table J-3. Prefix string *ga-ga-* with *Ci-* thematic prefix (illustrated here with the prefix *ji-* 'hand')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	jikaaka-	jikaakada-	jikaakaa-	jikaakadi-	jikaakasa-	jikaakas-	jikaakasi-	jikaakadzi-
2.sg.	ee-	jigaagee-	jigaagida-	jigaagiya-	jigaagidi-	jigaagisa-	jigaagees-	jigaagisi-	jigaagidzi-
3.	Ø-	jigaaga-	jigaaxda-	jigaagaa-	jigaaxdi-	jigaaxsa-	jigaagas-	jigaaxsi-	jigaaxdzi-
3-3.	a-	ajigaaga-	ajigaaxda-	ajigaagaa-	ajigaaxdi-	ajigaaxsa-	ajigaagas-	ajigaaxsi-	ajigaaxdzi-
1.pl.	too-	jigaaxtoo-	jigaaxtuda-	jigaaxtuwa-	jigaaxtudi-	jigaaxtusa-	jigaaxtoos-	jigaaxtusi-	jigaaxtudzi-
2.pl.	yi-	jigaaxyi-	jigaaxyida-	jigaaxyeey-	jigaaxyidi-	jigaaxyisa-	jigaaxyis-	jigaaxyisi-	jigaaxyidzi-
4.	du-	jigaaxdu-	jigaaxdu-	jigaaxduwa-	jigaaxduwa-	jigaaxdus-	jigaaxdus-	jigaaxdudzi-	jigaaxdudzi-
Irr.-1.sg.	u-xa-	jeekaaka-	jeekaakada-	jeekaakaa-	jeekaakadi-	jeekaakasa-	jeekaakas-	jeekaakasi-	jeekaakadzi-
Irr.-3.	u-Ø-	jeegaaga-	jeegaaxda-	jeegaagaa-	jeegaaxdi-	jeegaaxsa-	jeegaagas-	jeegaaxsi-	jeegaaxdzi-
Irr.-3-3	a-u-	ajeegaaga-	ajeegaaxda-	ajeegaagaa-	ajeegaaxdi-	ajeegaaxsa-	ajeegaagas-	ajeegaaxsi-	ajeegaaxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	jikaakasha-	jikaakash-	jikaakashi-	jikaakaji-	jikaakala-	jikaakal-	jikaakali-	jikaakadli-
2.sg.	ee-	jigaagisha-	jigaageesh-	jigaagishi-	jigaagiji-	jigaagila-	jigaageel-	jigaagili-	jigaagidli-
3.	Ø-	jigaaxsha-	jigaagash-	jigaaxshi-	jigaaxji-	jigaaxla-	jigaagal-	jigaaxli-	jigaaxdli-
3-3.	a-	ajigaaxsha-	ajigaagash-	ajigaaxshi-	ajigaaxji-	ajigaaxla-	ajigaagal-	ajigaaxli-	ajigaaxdli-
1.pl.	too-	jigaaxtusha-	jigaaxtoosh-	jigaaxtushi-	jigaaxtuji-	jigaaxtula-	jigaaxtool-	jigaaxtuli-	jigaaxtudli-
2.pl.	yi-	jigaaxyisha-	jigaaxyish-	jigaaxyishi-	jigaaxyiji-	jigaaxyila-	jigaaxyil-	jigaaxyili-	jigaaxyidli-
4.	du-	jigaaxdush-	jigaaxdush-	jigaaxduji-	jigaaxduji-	jigaaxdul-	jigaaxdul-	jigaaxdudli-	jigaaxdudli-
Irr-1.sg.	u-xa-	jeekaakasha-	jeekaakash-	jeekaakashi-	jeekaakaji-	jeekaakala-	jeekaakal-	jeekaakali-	jeekaakadli-
Irr-3.	u-Ø-	jeegaaxsha-	jeegaagash-	jeegaaxshi-	jeegaaxji-	jeegaaxla-	jeegaagal-	jeegaaxli-	jeegaaxdli-
Irr.-3-3	a-u-	ajeegaaxsha-	ajeegaagash-	ajeegaaxshi-	ajeegaaxji-	ajeegaaxla-	ajeegaagal-	ajeegaaxli-	ajeegaaxdli-

Table J-4. Prefix string *ga-ga-* with *Cu-* thematic prefix (illustrated here with the prefix *tu-* 'inside, mind')

Classifier:		**Ø**	**da-**	**ya-**	**di-**	**sa-**	**s-**	**si-**	**dzi-**
Components:		*Ø*	*D-*	*I-*	*D-I*	*S-*	*S-D-*	*S-I-*	*S-D-I-*
1.sg.	xa-	tukaaka-	tukaakada-	tukaakaa-	tukaakadi-	tukaakasa-	tukaakas-	tukaakasi-	tukaakadzi-
2.sg.	ee-	tugaagee-	tugaagida-	tugaagiya-	tugaagidi-	tugaagisa-	tugaagees-	tugaagisi-	tugaagidzi-
3.	Ø-	tugaaga-	tugaaxda-	tugaagaa-	tugaaxdi-	tugaaxsa-	tugaagas-	tugaaxsi-	tugaaxdzi-
3-3.	a-	atugaaga-	atugaaxda-	atugaagaa-	atugaaxdi-	atugaaxsa-	atugaagas-	atugaaxsi-	atugaaxdzi-
1.pl.	too-	tugaaxtoo-	tugaaxtuda-	tugaaxtuwa-	tugaaxtudi-	tugaaxtusa-	tugaaxtoos-	tugaaxtusi-	tugaaxtudzi-
2.pl.	yi-	tugaaxyi-	tugaaxyida-	tugaaxyeey-	tugaaxyidi-	tugaaxyisa-	tugaaxyis-	tugaaxyisi-	tugaaxyidzi-
4.	du-	tugaaxdu-	tugaaxdu-	tugaaxduwa-	tugaaxduwa-	tugaaxdus-	tugaaxdus-	tugaaxdudzi-	tugaaxdudz-
Irr.-1.sg.	u-xa-	tookaaka-	tookaakada-	tookaakaa-	tookaakadi-	tookaakasa-	tookaakas-	tookaakasi-	tookaakadzi-
Irr.-3.	u-Ø-	toogaaga-	toogaaxda-	toogaagaa-	toogaaxdi-	toogaaxsa-	toogaagas-	toogaaxsi-	toogaaxdzi-
Irr.-3-3	a-u-	atoogaaga-	atoogaaxda-	atoogaagaa-	atoogaaxdi-	atoogaaxsa-	atoogaagas-	atoogaaxsi-	atoogaaxdzi-
Classifier:		**sha-**	**sh-**	**shi-**	**ji-**	**la-**	**l-**	**li-**	**dli-**
Components:		*Sh-*	*Sh-D-*	*Sh-I-*	*Sh-D-I-*	*L-*	*L-D-*	*L-I-*	*L-D-I-*
1.sg.	xa-	tukaakasha-	tukaakash-	tukaakashi-	tukaakaji-	tukaakala-	tukaakal-	tukaakali-	tukaakadli-
2.sg.	ee-	tugaagisha-	tugaageesh-	tugaagishi-	tugaagiji-	tugaagila-	tugaageel-	tugaagili-	tugaagidli-
3.	Ø-	tugaaxsha-	tugaagash-	tugaaxshi-	tugaaxji-	tugaaxla-	tugaagal-	tugaaxli-	tugaaxdli-
3-3.	a-	atugaaxsha-	atugaagash-	atugaaxshi-	atugaaxji-	atugaaxla-	atugaagal-	atugaaxli-	atugaaxdli-
1.pl.	too-	tugaaxtusha-	tugaaxtoosh-	tugaaxtushi-	tugaaxtuji-	tugaaxtula-	tugaaxtool-	tugaaxtuli-	tugaaxtudli-
2.pl.	yi-	tugaaxyisha-	tugaaxyish-	tugaaxyishi-	tugaaxyiji-	tugaaxyila-	tugaaxyil-	tugaaxyili-	tugaaxyidli-
4.	du-	tugaaxdush-	tugaaxdush-	tugaaxduji-	tugaaxduji-	tugaaxdul-	tugaaxdul-	tugaaxdudli-	tugaaxdudli-
Irr-1.sg.	u-xa-	tookaakasha-	tookaakash-	tookaakashi-	tookaakaji-	tookaakala-	tookaakal-	tookaakali-	tookaakadli-
Irr-3.	u-Ø-	toogaaxsha-	toogaagash-	toogaaxshi-	toogaaxji-	toogaaxla-	toogaagal-	toogaaxli-	toogaaxdli-
Irr.-3-3	a-u-	atoogaaxsha-	atoogaagash-	atoogaaxshi-	atoogaaxji-	atoogaaxla-	atoogaagal-	atoogaaxli-	atoogaaxdli-