

AN OVERVIEW OF THE GRAMMAR OF ĀQTEMM

Created for the 8th Speedlang Challenge

March 2021

Yacabe

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Introduction

Chapter 1

Section 1.1: Background

Āqtemm is a suspected language isolate with approximately 3000 native speakers residing in a cluster of settlements in the far reaches of the Northern Region. Though the language has been known to the world for some time, the remote location of its speakers has limited the amount of academic attention it has received. In this document, we present data collected over three separate journeys across the Greater Titan Range to the frigid pine forests of the Āqtemm homeland. Our project is dedicated to the residents of the Lāfla and Mosell villages who graciously housed and fed us during our studies. In the coming years, we hope to see them again as we undertake a more thorough survey of their language.

Phonologically, Āqtemm has quantity distinctions on both a phonological and suprasegmental level. It is also notable for the complete lack of phonemic glides (though the palatal approximant does exist allophonically). It is a predominantly agglutinating language, featuring a unique split-ergative case system, polypersonal verb agreement, and free word order. Āqtemm's pronoun class is extremely open, regularly admitting new members in order to encode nuanced formality and noun-class distinctions. However, Āqtemm's pronouns are unique in they can be analyzed as a separate and distinct lexical class from nouns. Whereas other languages with open pronoun classes tend to treat nouns and pronouns as one, there are several morphosyntactic distinctions that separate the two in Āqtemm. Finally, Āqtemm shows strong head-final tendencies and makes extensive use of subordination: the employment of subordinating morphology and particles in independent clauses. We hope the data we present here will inspire others to aid in the study and preservation of this magnificent language.

Section 1.2: Abbreviations

Table 1.1: Glossing Abbreviations

| Abbreviation | Meaning |
|---------------------|------------------------|
| - | Morpheme Boundary |
| = | Clitic Boundary |
| > | Transitivity Direction |
| 1 | 1st Person |
| 2 | 2nd Person |
| 3 | 3rd Person |
| ABS | Absolutive |
| ACC | Accusative |
| ALL | Allative |
| DUR | Durative |
| ERG | Ergative |
| FORM | Formal |
| GEN | Genitive |
| INDEF | Indefinite |
| INFORM | Informal |
| IPFV | Imperfective |
| IRR | Irrealis |
| LOC | Locative |
| NEG | Negative |
| NOM | Nominative |
| PFV | Perfective |
| PL | Plural |
| PROP | Proper Article |
| Q | Polar Question |
| SG | Singular |
| SPEC | Specific |
| SUBJ | Subjective |
| UNSPEC | Unspecific |

Phonology

Chapter 2

Section 2.1: Consonants

Āqtemm has 15 phonemic consonants. Voicing is not phonemic, but for sonorants, length is.

Table 2.1: Phonemic Consonants

| | | Labial | Alveolar | Velar | Uvular | Glottal |
|------------------|--------------|--------|----------|-------|--------|---------|
| Stop | | p | t | k | q | |
| Fricative | | f | s | x | χ | h |
| Nasal | Short | m | n | | | |
| | Long | mː | nː | | | |
| Lateral | Short | | l | | | |
| | Long | | lː | | | |

By way of allophony, the non-strident fricatives /f/, /x/, and /χ/ voice intervocalically to become [v], [ɣ], and [ʁ]. Both the long and short forms of the alveolar nasal, /n/ and /nː/, assimilate to the place of articulation of any following obstruent (with the exception of /h/). The short lateral approximant, /l/, is realized as [j] before the front vowels /i/ and /e/, but only when they bear stress (see section 2.2). Finally, the long lateral approximant, /lː/, is always velarized and pronounced as [ɫː].

Every consonant phoneme will be represented as its corresponding IPA symbol except for /χ/, which will be romanized as <xh>, and the geminated sonorants which will be romanized as double letters (i.e., /mː/ will be written <mm>).

Section 2.2: Vowels

Āqtemm features a simple 5-vowel system with no phonemic length distinction and no diphthongs.

Table 2.2: Phonemic Vowels

| | Front | Back |
|------|-------|------|
| High | i | u |
| Mid | e | o |
| Low | a | |

Phonetically, each vowel phoneme is realized differently depending on whether or not it bears stress. The differences between these realizations are shown in table 2.3.

Table 2.3: Stressed vs. Unstressed Vowel Realizations

| (a) Stressed Realizations | | | (b) Unstressed Realizations | | |
|---------------------------|-------|------|-----------------------------|-------|------|
| | Front | Back | | Front | Back |
| High | i | u | High | ɪ | ʊ |
| Mid | e | o | Mid | ɛ | ɔ |
| Low | ɐ | | Low | ɑ | |

For romanization purposes, all vowel phonemes will be written as their corresponding IPA symbol.

Section 2.3: Phonotactics

The largest possible syllable in Āqtemm is CVC. The glottal fricative may not appear in onset positions when preceded by a coda obstruent (for example, /pak.ha/ would not be a valid word). It may also only appear as a coda word finally (i.e., /pah.ka/ would not be a valid word). Geminated sonorants may not occur as onsets word initially or when preceded by any coda consonant (hence /ka.n:a/ is a valid word, but /kas.n:a/ is not). That being said, geminated sonorants can occur in word final positions, as can be seen in the name of the language.

Section 2.4: Prosody

There are two prosodic features in Āqtemm: stress, which is a property of words, and length, which is a property of stressed syllables. Stress always falls on the first syllable of a root word (inflectional prefixes cannot bear stress). It is realized by an increase in pitch relative to surrounding syllables. When a word is being emphasized on a phrasal or clausal level, this pitch contrast is exaggerated. Additionally, as was discussed in section 2.2, stressed vowels are more tense than their unstressed counterparts.

Though stress by itself cannot distinguish two words from each other, stressed syllables can be contrasted by the length of their segments, a feature which shall hereafter be referred to as “heaviness” to avoid confusion with phonemic sonorant length. When a stressed syllable is heavy, both its vowel and its coda consonant (if there is one) are lengthened. Heaviness is marked on a word with a macron over the lengthened vowel. In the name of the language, Āqtemm, for example, the first syllable is heavy, yielding a phonetic realization of [ˈeːqːtɛmː]. When the syllable coda is already occupied by a geminated sonorant, it becomes overlong. *Hīllke*, meaning lake, for example, is realized as [hiːlːkɛ]. Heaviness also changes the pitch of a stressed syllable, causing it to be realized with a falling tone rather than a pure high tone.

As aforementioned, heaviness is contrastive. This can be seen in the contrast between *sif*, a third person pronoun, and *sīf*, its accusative form. Despite this, long vowels, long obstruents, and overlong sonorants are not phonemes. Instead, they are realizations of the phonemes given in sections 2.2 and 2.1 in the context of a heavy syllable. To understand this distinction, consider that overlong sonorants can only occur in the codas of stressed syllables whereas plain long sonorants occur in any syllable regardless of stress and can appear in onsets as well as codas. Furthermore, whereas overlong sonorants must be preceded by a long vowel, plain long sonorants can contrast with short sonorants even when preceded by a short vowel (compare *qam* to *qamm*). As such, it is clear that for plain long sonorants, length is a feature of the segment itself, whereas for overlong sonorants (and along with them long vowels and long obstruents) it is a feature of the syllable.

Chapter 3

Nouns & Pronouns

Though nouns and pronouns are indeed separate lexical classes, they are still similar enough that they can be discussed in one section. Furthermore, Āqtemm’s animacy-based split ergativity is most efficiently described in a description of nouns and pronouns together. That being said, this detail will also cover in-depth the differences between nouns and pronouns. Nouns inflect for case, definiteness, and specificity, whereas pronouns inflect for case and number.

Section 3.1: Cases and Alignment

3.1.1 Overview

Before detailing the forms and meanings of Āqtemm’s cases, it is worth delving into the complexities of its alignment. As is standard, the subject of an intransitive verb will be denoted as **S**, the agent of a transitive verb as **A**, and the patient of a transitive verb as **P**. Split ergativity is conditioned based on animacy, with 1st and 2nd person pronouns employing nominative/accusative alignment and non-pronouns using ergative/absolutive alignment. Interestingly, 3rd person pronouns function as a transitional group and employ tripartite alignment. This system is summarized in table 3.1.

Table 3.1: Case Marking for Arguments of Varying Animacy

| | S | A | P |
|-------------------------|----------|----------|------------|
| 1st/2nd Pronouns | Unmarked | Unmarked | Accusative |
| 3rd Pronouns | Unmarked | Ergative | Accusative |
| Non-Pronouns | Unmarked | Ergative | Unmarked |

In addition to the core cases alluded to above, there is a genitive case which marks possession, origin, and composition. The forms and usages of each of Āqtemm’s cases will be detailed in the following sections.

3.1.2 Unmarked Cases

Zero-marking is used to indicate multiple cases in Āqtemm. Broadly speaking, zero marking is used for any and all S-type arguments, as shown in (1), a 1st or 2nd person A-type argument, as shown in (2), or a non-pronominal P-type argument, as shown in (3).

- (1) Pāxh-Ø li-tāqull henha ēl
 1SG-NOM 1-dwell here LOC
 ‘I live here’
- (2) Pāxh-Ø pēn-ne li-eqi nix minki ēl
 1SG-NOM 2SG-ACC 1>3-know see there LOC
 ‘I can see you over there’
- (3) Eqiux ūt pēn-ill hifqo-lan ex qōs-lan tullpi-Ø sūl axhliq
 Truth ALL 2SG-GEN brother-ERG more young-ERG person-ABS many violent
 lōqus
 mock.IPFV
 ‘Your younger brother really mocks people in a vicious manner’

It should be noted, however, that zero-marking does not, on a theoretical level, always indicate the same case. The specific case being marked depends on the alignment system employed by the argument. In (1), for example, zero-marking indicates the nominative because the subject is a first person pronoun, which employs nominative/accusative alignment. In (4), on the other hand, it indicates the absolutive because the subject is a non-pronominal argument which uses ergative/absolutive alignment.

- (4) Kīs-Ø lōnnmus ofah-ill qōll ēl af impa anka-ll onxhulan ūt
 Cat-ABS sleep.IPFV building-GEN top LOC but fall 3SG-GEN death ALL
 ‘The cat was sleeping on top of the tower but it fell to its demise’

Finally, in (5), it represents the so-called “subjective case,” which is only used to mark 3rd person subjects of intransitive verbs. As aforementioned, 3rd person pronouns employ tripartite alignment, so S-type arguments in this category cannot be neatly grouped with A or P-type arguments. As such, the subjective case is seen as distinct from the nominative and absolutive cases, with some arguing that it is a mixture of both.

- (5) Ōxen-Ø lōnnim kōh ponin alsī
 3SG-SUBJ sleep.PFV night whole DUR
 ‘He/she slept all night’

Zero-marked cases will be glossed throughout the discussion of Āqtemm’s cases but will not be indicated elsewhere in the grammar.

3.1.3 The Accusative

The accusative is used to mark pronominal P-type arguments. This is illustrated above in (2) for 1st and 2nd person pronouns, and below in (6) for 3rd person pronouns.

- (6) Ōxen-lan ūmm kummno ōfelux ēl
 3SG-ERG 3PL.ACC hug love LOC
 ‘He/she lovingly hugged them’

The formation of the accusative is relatively complex, with its form varying based on the number of syllables in a word, the heaviness of stressed syllables, and the existence of word final consonants. These rules are listed below.

- For light monosyllabic words, the accusative is formed only by making the syllable heavy. For example, the accusative form of *sif*, a third person pronoun used to refer to friends, is *sif*.
- For open monosyllabic words (which are always heavy), the accusative is formed with the addition of the suffix *-n*. For example, the accusative form of *hā*, a second person pronoun used to address superiors, is *hān*.
- For heavy, closed monosyllabic words, it is formed with the addition of the suffix *-ne*. For example, the accusative of *pāxh*, an informal first person pronoun, is *pāxhne*.
- For disyllabic words with a heavy, open stressed syllable, it is formed by deletion of the vowel in the final syllable and the addition of the suffix *-e*. For example, the accusative of *ōxen*, a third person pronoun for referring to superiors, is *ōxne*.
- For all other words that end in a consonant, the suffix *-e* is used. For example, the accusative of *nilhet*, a first person pronoun used when addressing superiors, is *nilhete*.
- Finally, or all other words that end in a vowel, the suffix *-ne* is used. For example, the accusative of *pāxhka*, the plural of *pāxh*, is *pāxhkane*.

3.1.4 The Ergative

The ergative is used to mark 3rd person agents of a transitive verb as was shown above in (3) and (6). Its form is relatively simple compared to the accusative, taking the form of the suffix *-lan* except when the marked noun ends in a long *ll*, in which case it becomes *-an*. The only other rule for ergative inflection is that when a word ends in a glottal fricative, it is dropped before the addition of the ergative suffix. For example, the ergative of *pāxuh*, meaning fox, is *pāxulan*.

3.1.5 The Genitive

The formation of the genitive is similar in complexity to that of the accusative, following the rules shown below:

- For light, closed monosyllabic words, the genitive is formed by lengthening the syllable and adding the suffix *-ill*. For example, the genitive form of *qam*, meaning hand, is *qāmill*.
- For open monosyllabic words (which are heavy by default), the genitive is formed by making the syllable light and adding the suffix *-ll*. For example, the genitive of *pō*, meaning father, is *poll*.
- For heavy, closed monosyllabic words, the genitive is formed in two parts: first, the suffixation of an epenthetic vowel which varies arbitrarily between words and must be memorized, and second the addition of the suffix *-ll*. For example, the genitive of *kōh*, meaning night, is *kōholl*.
- For disyllabic words with with a long, open stressed syllable, it is formed by deleting the vowel in the ultimate syllable and adding the suffix *-ill*. For example, the genitive of *īluq*, meaning hammer, is *īlqill*.
- For any other word ending in a consonant, the suffix *-ill* is used. For example, the genitive of *lakmis*, meaning spider, is *lakmisill*.
- For any other word ending in a vowel, the suffix *-ll* is used. For example, the genitive of *tullpi*, meaning person, is *tullpill*

The genitive can be used to indicate a variety of meanings. The most common of these is possession,

- (7) Pāxh-oll qōll af pāxh-oll nāl-ill qōll ūfex
 1SG-GEN face and 1SG-GEN sister-GEN face similar
 ‘My face is similar to my sister’s face’

though it can also be used to indicate origin,

- (8) Pāxh-ka-Ø pāxh-ka-ll qammexoh-ill annte-Ø li-lifmus
 1-PL-NOM 1-Pl-GEN garden-GEN food-ABS 1>3-eat.IPFV
 ‘We eat the food from our garden’

composition,

- (9) Pēn-ill ōm-Ø kasta-s ēxill hōk ēl
 2SG-GEN mother-ABS sit-IPFV grass.GEN mat LOC
 ‘Your mother was sitting on a mat made of grass’

or even association.

- (10) Pūxek kōh-oll hemqu
 Bat night-GEN lesser.animal
 ‘Bats are animals of the night’ or ‘bats are nocturnal’

Section 3.2: Articles

There are four articles in Āqtemm. They are used to indicate semantic properties of the noun, most notably definiteness and specificity. Despite having a plethora of articles, however, Āqtemm does not explicitly mark definite nouns. Instead, the citation form of a noun is interpreted as definite, referring either to a specific instance of a noun or to a class of nouns as a whole. Indefiniteness, on the other hand, is indicated by two separate articles (whose properties will be discussed below), and the remaining two articles are used to mark proper nouns.

3.2.1 Indefinite Articles

The fact that indefiniteness is marked on nouns instead of definiteness is best understood through the lens of familiarity. Definite nouns are those that all participants in a discourse can identify without further explanation. Indefinite nouns, on the other hand, need to be introduced or expounded upon in some manner because not everyone listening is familiar with them. In Āqtemm, this extra explanation is provided in the form of indefinite articles. As discussed above, Āqtemm has two indefinite articles, with the difference between them being that one indicates specificity while the other does not. To understand this distinction, consider the sentence “I am looking for a black purse,” where is ambiguity with regards to the specificity of the purse. The speaker could be looking for a particular black purse, perhaps one they have lost, or they could be looking for any black purse, perhaps because they would like to buy one. Āqtemm handles this ambiguity explicitly in its indefinite articles. In (11), the specific indefinite article is used because the speaker knows exactly which spear they will be leaving while their audience does not.

- (11) Pāxh exmik-ill ni=taftek lommpa af qōs li-hiplo
 1SG metal-GEN INDEF.SPEC=spear sturdy and young 1>3-leave.behind
 ‘I am leaving a good, new, metal spear’

In (12), on the other hand, the unspecific indefinite article is used because the speaker has no particular spear in mind. If the article in this sentence were changed to the specific article, the meaning would be that the listener needs a specific spear, perhaps one specially made for deer hunting.

- (12) Pēn a=taftek lommpa hen-ēqep omti hen-kinto alsī till kōmat ēl
 2SG INDEF.UNSPEC=spear sturdy 2>3-need deer 2>3-hunt DUR day next LOC
 ‘You will need a good spear while you are hunting deer tomorrow’

By way of formation, the specific indefinite article is realized as the prefix *n-* before words that begin with vowels and *ni-* before those that begin with consonants. The unspecific indefinite article, on the other hand, takes the form *h-* before a vowel and *a-* before a consonant. All of Āqtemm’s articles are clitics which act on the noun-phrase level, so they

are not necessarily bound to the noun they are modifying. The best evidence of this is in possessive constructions, such as that shown in (13).

- (13) Kēsan ni=qēm-ill nunnaq li-tōlek
 1SG INDEF.SPEC=2SG-GEN friend 1>3-look.for
 ‘I am looking for one of your friends’

Here, the article has been moved in front of the possessor, though it is still indicating a property of the possessed noun. The use of the specific indefinite article in this situation implies that the speaker is looking for a particular one of the listener’s friends (though the listener does not know which one). If the unspecific indefinite article were used instead, the meaning would be that the speaker has no particular friend in mind, and that they just need to find one of them.

3.2.2 Proper Articles

Names in Āqtemm are generally derived directly from noun phrases. For example, the name *Pāxill Kintonuk* literally means “fox hunter.” Thus, in certain contexts, it can be ambiguous whether or not a noun phrase is functioning as a name. Example (14), for example, could be read as introducing a friend whose name is Fox Hunter or, just as plausibly, introducing a friend whose occupation is fox hunting. This is due to the fact that Āqtemm lacks a copula and expresses equative clauses through juxtaposition (see section 7.2).

- (14) Nīn pāxh-oll nunnaq pāxill kintonuk
 DEM 1SG-GEN friend fox.GEN hunter
 ‘This is my friend Fox Hunter’ or ‘This is my friend, the fox hunter’

To resolve this ambiguity, proper articles can be used, as in (15).

- (15) Nīn pāxh-oll nunnaq u=pāxill kintonuk
 DEM 1SG-GEN friend PROP.INFORM=fox.GEN hunter
 ‘This is my friend Fox Hunter’

In addition to *u-*, there is an additional proper article, *o(x)-* (the *x* is only used with nouns that begin with a vowel). The difference between the two is the level of formality they distinguish. As will be seen in the ensuing description of Āqtemm’s pronouns, formality is rigidly encoded in its grammar. This is also apparent here. Both proper articles serve essentially the same purpose, except that *o(x)-* is considered more formal than *u-*. Indeed, whereas the informal proper article is generally used only when introducing someone or resolving ambiguity when it arises, it is considered quite rude to omit the formal proper article when it would otherwise be used.

Section 3.3: Pronouns

The most interesting feature of Āqtemm’s pronouns is that they are an open class, and that they regularly admit new members. New pronouns are usually derived from nouns or adjectives and come about for one of two reasons:

1. Formality: new first, second, or third person pronouns can be innovated to accommodate new or changing distinctions in Āqtemm’s formality hierarchy. For example, the second person pronoun, *pēn* which is used in peer-to-peer interactions and is considered the default second person pronoun, is transparently related to an adjective of the same form which means blessed or wonderful.
2. Nominal categories: new third person pronouns can come about to more specifically indicate the semantic category an omitted noun belongs to. For example, the pronoun *anka* is used to refer to domesticated animals or big game and is clearly zero-derived from the Āqtemm word for pig.

3.3.1 Pronouns as a Distinct Lexical Class

In some other languages with an open pronoun class, there is debate as to how distinct the pronoun class is from the noun class. In Āqtemm, however, there is no such ambiguity. While pronouns are syntactically and semantically similar to nouns (and sometimes identical in form), there are several tests that can be used to differentiate a noun from a pronoun.

The Alignment Test

As has already been discussed in detail, nouns will always use ergative/absolute alignment whereas pronouns will use either tripartite or nominative/accusative alignment, depending on their person. This creates a distinction in the use of the word *anka* in the following two sentences:

- (16) Pēn-Ø anka-Ø hen-ēqep hāsen lifimm h=annte ūt
 2SG-NOM pig-ABS 2>3-need push eat INDEF.UNSPEC=food ALL
 ‘You need to make the pig eat something’ or ‘You need to feed the pig’

- (17) Anka-ne pāxu-lan Ø-hāsen onxhu
 3SG-ACC fox-ERG 3>3-cause die
 ‘The fox killed it (the animal)’

In both sentences, *anka* is the patient of the verb, and yet it is marked with a different case in each. The use of the absolute in (16) is what would be expected given the word’s original meaning, pig, placing it squarely in the category of non-pronouns. The use of the accusative in (17), however, is consistent with the tripartite alignment used for third person pronouns, indicating that in that circumstance *anka* is being used as such.

The Plurality Test

Pronouns are the only lexical class in Āqtemm which inflect for number. The default plural marker is the suffix *-(l)ka*, where the *l* is omitted unless the marked word ends in a vowel. In (18), the fact that *anka* is taking any sort of plural marking is evidence that it has made the jump from noun to pronoun.

- (18) Anka-lka-lan qāmmexoh-Ø kixhme
 3-PL-ERG garden-ABS crush
 ‘They (the animals) trampled the garden’

While *-(l)ka* is the default pluralization suffix, suppletion is also extremely common among pronouns. The plural of *pēn*, for example is *hōmm*, which has no existing noun equivalent but is believed to descend from a word which meant council or leadership.

The Animacy Test

The final test for differentiating between nouns and pronouns relates to the order in which a verb’s arguments are placed. As will be discussed in more detail in section 7.1, Āqtemm will always place the most animate argument first in a sentence. Given that pronouns rank higher on Āqtemm’s animacy hierarchy than standard nouns, the fronting of an argument that would normally not undergo such an operation can indicate that it has gained a pronominal sense. For example, the pronoun *āfol*, which refers to diminutives, is zero-derived from a noun meaning scrap or shard. In (19), where it is functioning as a noun, it is placed after the cat, which is a more animate actor. In (20), on the other hand, where its accusative form, *āfle*, is functioning as a pronoun, it precedes the word for father. Even though *āfol* by definition refers to inanimate objects, because it is used as a pronoun in this case it is able to precede arguments that would otherwise be more animate than it.

- (19) Kīs-lan n=annte-ll āfol-Ø mīm lifimm los ēl
 Cat-ERG INDEF.SPEC=food-GEN scrap-ABS some eat floor LOC
 ‘The cat ate some food scraps from the ground’
- (20) Āfle pāxh-oll pō-lan on ēxoh ēl
 3SG.ACC 1SG-GEN father-ERG put grass LOC
 ‘My father put it (the small thing) in the grass’

3.3.2 Common Pronouns

Table 3.2 lists some of the most common pronouns in Āqtemm. From left to right, the columns indicate the singular form of the pronoun, the corresponding plural form, the etymology of each, and the context in which the pronoun is used. Note that the etymologies do not restate the noun from which the pronouns are zero-derived but rather give its definition.

Table 3.2: Common Pronouns

| (a) 1st Person | | | | |
|----------------|----------|------------------|---------------|----------------------------------|
| Singular | Plural | Sg. Etym. | Pl. Etym. | Context |
| Nilhet | Nilhetka | “Penitant” | Plural Suffix | Addressing Superiors |
| Kēsan | Tūpli | “Child” | “Offspring” | Child-to-Parent |
| Qenuk | Īsa | “Teacher” | “Forefathers” | Addressing Subordinates |
| Lī | Letla | Original Pronoun | “Group” | Friend-to-Friend/Parent-to-Child |
| Pāxh | Pāxhka | “Servant” | Plural Suffix | Peer-to-Peer |
| (b) 2nd Person | | | | |
| Singular | Plural | Sg. Etym. | Pl. Etym. | Context |
| Hā | Hālka | “Kind” | Plural Suffix | Addressing Superiors |
| Qem | Qemka | “Parent” | Plural Suffix | Child-to-Parent |
| Qōs | Kikut | “Young” | “Able-bodied” | Addressing Subordinates |
| Hen | Henka | Original Pronoun | Plural Suffix | Friend-to-Friend/Parent-to-Child |
| Pēn | Hōmm | “Blessed” | “Council” | Peer-to-Peer |
| (c) 3rd Person | | | | |
| Singular | Plural | Sg. Etym. | Pl. Etym. | Context |
| Ōxen | Oxenka | “Elder” | Plural Suffix | Referencing Superiors/Parents |
| Sif | Sifka | “Brother” | Plural Suffix | Referencing Friends/Children |
| Ūs | Umm | Original Pronoun | “Together” | Referencing Peers |
| Anka | Ankalka | “Pig” | Plural Suffix | Referencing Higher Animals |
| Hakih | Hakika | “Bug” | Plural Suffix | Referencing Lower Animals |
| Ēxoh | Ēxoka | “Grass” | Plural Suffix | Referencing Plants |
| Taftek | Tafteka | “Spear” | Plural Suffix | Referencing Tools & Weapons |
| Tūxhap | Tūxhapka | “Mountain” | Plural Suffix | Referencing Augmentatives |
| Āfol | Huk | “Scrap” | “Pile” | Referencing Diminutives |
| Lixla | Lixlalka | “Plan” | Plural Suffix | Referencing Abstracts |

These pronouns are used in examples throughout the grammar.

Verbs

Chapter 4

Section 4.1: Aspect

Morphologically, Āqtemm makes a simple aspectual distinction between perfective and imperfective. The perfective is the citation form of the verb while the imperfective is formed according to the following rules:

- For light monosyllabic verbs, the imperfective is formed by making the syllable heavy and adding the suffix *-us*. For example, the imperfective form of *on*, meaning to put, is *ōnus*.
- For open monosyllabic verbs (which are always heavy), the imperfective is formed by making the syllable light and adding the suffix *-s*. For example, the imperfective form of *lē*, meaning to leave or exit, is *les*.
- For heavy, closed monosyllabic verbs, an epenthetic vowel is added (which must be memorized for each such verb) along with the suffix *-s*. For example, *lāp*, meaning to walk, becomes *lāpes* in the imperfective.
- For disyllabic words with a heavy, open stressed syllable, the vowel in the ultimate syllable is deleted and the suffix *-us* is added. For example, *tōlek*, meaning to search for or seek, becomes *tōlkus* in the imperfective.
- For any other word that ends in a vowel, the suffix *-s* is added. For example, *kastas* is the imperfective form of *kasta*, meaning to sit.
- Finally, for any other word that ends in a consonant, the suffix *-us* is added. For example, *pektum*, meaning to punch or pound, becomes *pektumus* in the imperfective.

Semantically, the imperfective is used to indicate actions that do not take place at a single point in time. It can have a progressive meaning,

- (21) U-nisislan tellan-ill ōm anti-s sif ūt kōh mal alsī
 PROP.INFORM-winter dawn-GEN mother sing-IPFV 3SG ALL night previous DUR
 ‘Winter Sunrise’s mother was singing to her last night’

a habitual meaning (note that the phrase “many seasons ago” is a periphrastic remote past tense construction),

- (22) Tullpi-lan sēq-lan ōxen-ka-ll nunnaq lif-us qonnhot sūl lamku alsi
 Person-ERG old-ERG 3-PL-GEN friend chase-IPFV season many before DUR
 ‘Old people used to chase each other’

or a frequentative meaning.

- (23) Taftek-lan hālat pektum-us lamku impa-qes
 3SG-ERG tree strike-IPFV before fall-IRR
 ‘It (the tool) repeatedly struck the tree until it fell over’

Section 4.2: Agreement

Āqtemm features polypersonal verb agreement in which verbs agree with the person (but not the number) of their core arguments. Verb agreement is indicated by the suffixes shown in Table 4.1, in which columns correspond to the person of the S or A-type argument and rows correspond to the person of the patient. The third person is always unmarked, so indicating a first person agent acting on a third person patient uses the same agreement prefix, *-li*, as an intransitive verb with a first person subject.

Table 4.1: Polypersonal Agreement

| | | Subject/Agent | | |
|---------|---|---------------|--------|------|
| | | 1 | 2 | 3 |
| Patient | 1 | Lil- | Hel- | Li- |
| | 2 | Lin- | Henen- | Hen- |
| | 3 | Li- | Hen- | ∅- |

The split ergativity seen in Āqtemm’s case system does not manifest in its verb agreement. It is believed that at one time subject/agent and patient agreement were indicated by separate prefixes, but over time they have merged so that they no longer have distinct forms. In the second person, for example, a second person argument is marked by *hen-* when acting as the subject of an intransitive verb, *hel-* when acting upon a first person patient, and *lin-* when acted upon by a first person agent. Clearly, there is no way to usefully group the marking on intransitive subjects with that of transitive agents or patients. This could be analyzed as tripartite alignment, but this view would be upset when considering that for interaction with third person actors, the agreement prefix for 2nd person pronouns is *hen-* regardless of whether it is functioning as a subject, agent, or patient. Rather than try

to impose an arbitrary alignment system on Āqtemm's verb agreement paradigm, the prevailing view is that alignment is a phenomenon best discussed in the context of Āqtemm's nominal case marking and left out of the discussion of verbs.

Reflexives and Reciprocals

Verb agreement is also used to express reflexive and reciprocal meanings. In (24), the 2>2 agreement prefix indicates that the listener should wash themselves.

- (24) Qōs henen-innkus-qes lāmti ēl hap alsī
 2SG 2>2-wash-IRR river LOC soon DUR
 'Hopefully you wash yourself in the river soon'

In (25), on the other hand, the presence of a plural argument makes the sentence ambiguous, with the potential for reciprocal and reflexive meanings (both possibilities are shown in the gloss).

- (25) Qenuk li-eqi qōs af qōs-ill ōm sūl henen-ōfel-qes
 1SG 1-know 2SG and 2SG-GEN mother much 2>2-love-IRR
 'I know that you and your mother love each other very much'
 'I know that you and your mother love yourselves very much'

Context usually resolves this ambiguity. In (25), we can imagine that the speaker is likely not talking about how the listener and their mother love themselves, and therefore infer the more probable reciprocal meaning. However, when context clues are still ambiguous, a reciprocal reading is the default. To indicate the reflexive in such a case the word *hū*, meaning head or self, can be inserted in patient position, preceded by a genitive pronoun. Third person arguments, however, have no agreement prefix with which to indicate a reflexive or reciprocal meaning, so in these cases using *hū* is essential for indicating reflexives. Third person reciprocals also require periphrastic indication, employing the word *nunnaq*, meaning friend, in patient position preceded by a genitive. An example of this is shown below.

- (26) Pāxh-oll ōm-lan af pō-lan ōxen-ka-ll nunnaq kummno
 1SG-GEN mother-ERG and father-ERG 3-PL-GEN friend hug
 'My mother and father hugged each other'

Section 4.3: Mood

There are two moods in Āqtemm: the realis, indicated by the citation form of the verb, and the irrealis, which is indicated by the suffix *-qes*. When used in a simple sentence, the irrealis can have a potential meaning, as in (27), or an optative meaning, as in (28).

- (27) Īsa omti qōs li-lif-qes kinto hālatka ēl
 1PL deer new 1>3-try-IRR hunt forest LOC
 ‘We might try hunting deer in the forest again’
- (28) Ūs-all lāpux inke af has pōmman-qes
 3SG-GEN journey safe and quick continue-IRR
 ‘May his/her journey continue safely and quickly’

The irrealis is also important in the formation of subordinate clauses. In (29), the verb *lāp* is marked in the irrealis even though the meaning of the sentence is that the subjects did actually go walking. Thus, we can conclude that the semantically realis verb is being marked in the irrealis to indicate that it is a part of a subordinate clause.

- (29) Umm ni=pūl taxh nix alsi lāp-es-qes
 3PL INDEF.SPEC=bear big see DUR walk-IPFV-IRR
 ‘They saw a large bear while they were walking’

Section 4.4: Auxiliary Verb Constructions

Auxiliary verb constructions are often used to cover additional aspectual and modal meanings as well as valency changing operations not explicitly encoded in Āqtemm’s morphology. For example, the verb *pōmman* is used to indicate the continuative aspect, as shown in (30).

- (30) Pāxh li-pōmmanus lōnnim los ēl kōh līm alsi
 1SG 1-continue.IPFV sleep floor LOC night all DUR
 ‘I still sleep on the floor every night’

As demonstrated in this example, when an auxiliary verb is employed it is placed before the main verb and takes all aspectual, modal, and agreement morphology. That being said, the term “auxiliary verb” is misleading because, in truth, Āqtemm does not have a distinct set of auxiliary verbs. Instead, auxiliary verbs are simply standard verbs that have been repurposed to fill certain grammatical roles. *Pōmman*, for example, means to persevere when used by itself. Table 4.2 shows this in more detail, listing out several verbs as well as their meanings in both standard and auxiliary contexts.

Table 4.2: Auxiliary Verbs

| Verb | Standard Meaning | Auxiliary Meaning |
|--------|------------------|--------------------|
| Pōmman | To Persevere | Continuative |
| Hāsen | To Push | Causative |
| Ēqep | To Need | Obligative |
| Nix | To See | Sensory Evidential |
| Takli | To Turn Around | Semeliterative |
| Lē | To Leave | Cessative |
| Nuxh | To Come | Inchoative |
| Eqi | To Know | Abilitative |

Section 4.5: Negation

Negation is perhaps the least straightforward aspect of Āqtemm’s verbal morphosyntax. There is a negative prefix, *n(a)-* (the *a* is only used when the marked verb begins with a consonant), but it is never used by itself. In fact, there are three distinct components required to form a simple negative: placement of the subordinating conjunction, *unn*, at the beginning of the clause, use of the negative prefix, and use of the irrealis suffix. This is illustrated in (31) and its corresponding negative in (32).

- (31) Nilhet-ka hōlin li-nix
 1-PL cloud 1>3-see
 ‘We see the cloud’

- (32) Unn nilhet-ka hōlin na-li-nix-qes
 Thus 1-PL cloud NEG-1>3-see-IRR
Thus I don’t see the cloud
 ‘I don’t see the cloud’

The use of the subordinating conjunction and the irrealis mood are both products of insubordination: the use of subordinate morphosyntactic operations in non-subordinate clauses. It is believed that in Proto-Āqtemm, negation was carried out in a more typical manner (i.e., the negative prefix by itself was enough to indicate negation). However, it was likely also common to use constructions such as “I see a clear sky, thus I don’t see the cloud,” where an affirmative statement was given in a main clause to contrast with the negative statement in the subordinate clause. Over time, these constructions became analyzed as the default negation strategy, and to shorten them the main clause was dropped, leaving behind the subordinating conjunction and the irrealis marking on the verb as remnants of the original subordinated construction.

The use of the irrealis mood in negative constructions can also be analyzed as asymmetric negation. In (32), the irrealis is an obligatory marking, but it indicates an unrealized category because the underlying statement is realis. In this way, realis negative utterances are (to an extent) symmetric with irrealis affirmative statements and thus asymmetric with realis affirmative statements.

Section 4.6: Other Uses of Insubordination

Negation is not the only place where insubordination shows up in Āqtemm. It is also used to give commands, deliver threats and advisories, and imply causes.

4.6.1 Imperatives

A basic imperative utterance is shown in (33).

- (33) Ūt h=īluq hen-tōlek-qes
 ALL INDEF.UNSPEC=hammer 2>3-search.for-IRR
 ‘Look for a hammer’

There are three things which designate this utterance as a command. As with negation, we can see insubordination at work with the use of a sentence-initial subordinating particle (in this case the allative postposition *ūt*) as well as irrealis mood marking on the verb. In contrast to negatives, however, imperative verbs omit their subjects. We theorize this to be a product of the original structure of imperative sentences, which we posit to be something akin to “I order you to look for a hammer.” Because the 2nd person argument was already an argument of the verb in the main clause, it was likely omitted in the subordinate clause, and left to be understood through agreement morphology. Furthermore, because imperatives always imply a second person subject, there was no need to reintroduce one upon the ellipsis of the main clause.

4.6.2 Advisories and Threats

Consider the sentence,

- (34) Tif alsī kīkut nīn qamm hen-lē-qes
 Moment DUR 2PL this house 2>3-leave-IRR
 ‘If you leave this house’

Originally, this sentence likely had the form “there will be some consequence for you if you leave this house,” but the main clause was eventually dropped to yield a general threat or warning. Again, we see that the verb is marked in the irrealis as if the verb were

subordinated, and we also see a subordinator (in this case the phrase *tif alsi* meaning “at the moment,” which roughly translates to “if”) placed at the beginning of the sentence.

4.6.3 Implication

There are many ways to directly express the cause of an action, but insubordination allows it to be done indirectly. Example (35), when taken out of context, means “my brother hit me for some unknown reason.” This usage is not incorrect and is useful when the speaker wishes to convey that they do not know the source of the action. In context, however, it can subtly imply causation. For example, if the speaker were telling a story about annoying their brother, this sentence would indicate that their brother had hit them in response to the speaker’s actions without saying it outright.

- (35) Af letla-ne letla-ll hifqo-lan li-pektum-qes
 And 1SG-ACC 1SG-GEN brother-ERG 3>1-strike-IRR
 ‘My brother hit me (for some reason)’

As can be seen, implicative constructions are formed by placing the subordinating particle *af* at the beginning of the sentence and marking the verb in the irrealis mood.

Adjectives

Chapter 5

Section 5.1: Types of Adjectives

Āqtemm's adjectives can be broken into two broad semantic categories: quantitative and qualitative.

Quantitative Adjectives

Quantitative adjectives are those which describe how many of a given noun there are. Because Āqtemm lacks explicit number marking on nouns, quantitative adjectives are important in resolving any resulting ambiguity. Quantitative adjectives can be further subdivided into quantifiers and numerals. Quantifiers, also called general quantitative adjectives, give only a rough estimate of quantity. For example, *mīm*, which translates roughly to some, gives a sense that there is a small to medium number of the associated noun. Numerals, on the other hand, specify exactly how many instances of a noun there are.

Qualitative Adjectives

Qualitative adjectives describe all other properties of a noun, such as physical appearance, emotional state, texture, size, etc. A qualitative adjective can be derived from any noun with the addition of the suffix *-pe*. For example, *taftek*, meaning spear, becomes *taftekpe*, meaning spear-like or pointy.

Section 5.2: Agreement and Order

The only inflectional morphology that adjectives take is that they must agree with the case of the noun they modify. Because of this, adjective-noun word order is flexible. Adjectives are placed after the noun by default, but they can be placed immediately before the verb to

emphasize them. Fronting is commonly used with qualitative adjectives to introduce new properties of familiar referents, but employed less frequently with quantitative adjectives. Pragmatically, this difference arises from the fact qualitative adjectives can introduce information which is central to a discourse, while quantitative adjectives more often than not give simple numerical descriptions for context.

Section 5.3: Adverbial Usages

Adjectives can also be used to modify verbs. In these circumstances, adjectives are inflectionally unmarked and always directly precede the verb they are modifying. In (36), for example, the adjective *has*, meaning fast, is used to modify the verb *pēxol*, meaning to grow or grow up.

- (36) Lallkux es has pēxol tof tif ūt hap lamku
 Debt very fast grow.up two instance ALL now before
 ‘The debt doubled very quickly before now’ or ‘The debt has doubled very quickly’

Only qualitative adjectives can occur in adverbial constructions. To quantify the number of times an action occurs, a separate periphrastic construction must be used.

Chapter 6

Particles

Particles are a catch-all category in Āqtemm. Their only unifying feature is that they do not take any sort of inflectional morphology. The complete scope of meanings taken on by particles has yet to be determined, so for now we will present only the major categories of particles and some prominent members of each.

Section 6.1: Postpositions

As aforementioned, Āqtemm is a strongly head-final language. Its exclusive use of postpositions attests to this fact. Postpositions are used to indicate spatial or temporal relations. Some of the most common of these are shown in Table 6.1.

Table 6.1: Common Postpositions

| Postposition | Meaning |
|--------------|----------|
| Ēl | Locative |
| Ūt | Allative |
| Alsi | Durative |

Some postpositions can also be repurposed as conjunctions. The allative postposition, *ūt*, for example, is used as a subordinating conjunction in imperative and hortative constructions (see section 4.6.1).

Section 6.2: Interrogatives

There are two interrogative particles of interest: *kī*, which indicates polar questions, and *enqe*, which is used to form content questions. Polar questions are formed by placing *kī* at the end of a sentence as shown in (37).

- (37) Hen-ka hen-nām lāp hālatka ūt kī
 2-PL 2-want go forest ALL Q
 ‘Do you want to go to the forest?’

Content questions are less simple. Āqtemm lacks interrogative pronouns such as “where” or “what.” Instead, the particle *enqe* has a meaning which roughly corresponds to “which.” Its usage can be seen in (38).

- (38) Tūpli ēxne li-talkut tīll enqe alsī
 1PL 3SG.ACC 1>3-harvest day which DUR
 ‘On which day will he harvest it (the plant)’ or ‘When will we harvest it?’

As can be seen, content questions satisfy the form “which of a particular set of nouns satisfies a requirement?” To form this construction, *enqe* is placed after the noun which represents the category of interest (which in the case of (38) is days). Other than that, content questions observe no special syntactical structure.

Chapter 7

Syntax & Periphrasis

Our studies of Āqtemm’s syntax have yet to move past basic word order and some common periphrastic constructions We have already presented on noun-adjective and verb-auxiliary word order, so here we will focus our attention on sentence order. We will also describe equative and possessive constructions, which are formed periphrastically without verbs.

Section 7.1: Sentence Order

Āqtemm’s default word order is SV for intransitive sentences and APV for transitive sentences. However, as has been alluded to, this order varies substantially as a function of animacy. In general, the agent will precede the patient if and only if it is of equal or greater animacy as determined by the following hierarchy:

1st/2nd Pronouns > 3rd Pronouns > Humans > Higher Animals > Lower Animals > Inanimates > Abstractions

If this condition is not met, the patient will precede the agent.

Section 7.2: Equatives

Āqtemm lacks a copula of any kind, so equatives are expressed through juxtaposition as shown in (40).

- (39) Till mih nisislan alsī
 Day small winter DUR
 ‘The days are short in winter’

Section 7.3: Possessives

Āqtemm also lacks a distinct verb meaning “to have,” so its place is taken by a postpositional construction. In particular, the locative postposition *ēl* is used.

- (40) Qam taxh kēsan ēl
Hand big 1SG LOC
Big hands are on me
'I have big hands'

Conclusion

Chapter 8

In this sketch-grammar, I have demonstrated that Āqtemm meets all requirements set out in the 8th Speedlang Challenge.

Phonological Constraints

- Āqtemm makes a quantity distinction in two places: phonemically on sonorants (see section 2.1), and suprasegmentally in stressed syllables (see section 2.4).
- There are no phonemic glides in the language. In fact, [j] is the only glide to appear phonetically, existing only as an allophone of /l/ (see section 2.1).
- As aforementioned, Āqtemm features suprasegmental length, a feature which is neither stress nor tone (see section 2.4).

Grammatical Constraints

- Āqtemm’s pronouns are an open class which not only admit new members from the noun and adjective classes but can also be distinguished morphologically and syntactically from nouns (see section 3.3.1).
- Insubordination features prominently in Āqtemm. It is key in indicating negation (see section 4.5) as well as imperatives, warnings, and implications (see section 4.6).
- Negation is an asymmetrical process, requiring marking in the irrealis mood despite being semantically realis (see section 4.5).
- Whereas there are two indefinite articles which are distinguished based on specificity, definiteness is morphosyntactically unmarked in Āqtemm (see section 3.2.1).

Other Tasks

- Among the example sentences used in this grammar, five were taken from recent “Just Used 5 Minutes of your Day” (5moyd) challenges. Specifically, 5moyds 1359, 1385, 1387,

1412, and 1414 can be seen in examples (3), (22), (4), (11), and (36), respectively.

- Forty distinct pronouns are shown in Table 3.3.2 (including plural forms), and 21 of them are used in example sentences throughout the document.