

Western Washington University Western CEDAR

WWU Honors College Senior Projects

WWU Graduate and Undergraduate Scholarship

Spring 2022

Khahir: A Constructed Language

Kate Panza

Follow this and additional works at: https://cedar.wwu.edu/wwu_honors

Part of the Linguistics Commons

Recommended Citation

Panza, Kate, "Khahir: A Constructed Language" (2022). *WWU Honors College Senior Projects*. 581. https://cedar.wwu.edu/wwu_honors/581

This Project is brought to you for free and open access by the WWU Graduate and Undergraduate Scholarship at Western CEDAR. It has been accepted for inclusion in WWU Honors College Senior Projects by an authorized administrator of Western CEDAR. For more information, please contact westerncedar@wwu.edu.

Khahir: A Constructed Language

Kate Panza

Honors Capstone Spring 2022

Advised by Edward Vajda

CONTENTS

1	Kh		People and Culture	
	1.1	Phy	vsiology	5
	1.2	Hor	meland	5
	1.3	Cul	tural expression via appearance	5
	1.4	Cul	tural Creations	6
	1.4	.1	Cuisine	6
	1.4	.2	Architecture	6
	1.4	.3	Handicrafts	7
	1.4	.4	Music	7
	1.5	Soc	iety	7
	1.6	Bel	iefs	8
	1.6	.1	Mythos	8
	1.6	.2	Values	8
	1.6	.3	Practices and Traditions	8
2	Pho	onem	ic Inventory	9
	2.1	Vov	wels	9
	2.2	Dip	hthongs	9
	2.3	Cor	nsonants	9
3	Pho	onolo	ogy 1	0
	3.1	Allo	ophonic Variation and Phonological Processes1	0
	3.1	.1	Nasal Velarization1	0
	3.1	.2	Affricate Elision 1	0
	3.1	.3	Ejectivization 1	0
	3.1	.4	Uvularization1	1
	3.2	Pho	notactics 1	1
	3.2	.1	Syllabic Structure	1
	3.2	.2	Syllabification	2
	3.2	.3	Consonant Clusters and Sonority	2
	3.3	Sup	prasegmental Features	2

	3.3.1	Stress	12
	3.3.2	Tone and Intonation	13
4	Morpho	ology	14
	4.1 Ty	pology	14
	4.2 No	uns	14
	4.2.1	Roots	14
	4.2.2	Declension and Inflection	14
	4.2.3	Derivation	17
	4.2.4	Noun Class System and Grammatical Gender	17
	4.3 Sul	bject Pronouns	
	4.3.1	Person	
	4.3.2	Case	
	4.3.3	Number	
	4.3.4	Order of Inflectional Suffixes	
	4.3.5	Gender	19
	4.4 Ve	rbs	19
	4.4.1	Roots	19
	4.4.2	Inflection and Conjugations	19
	4.4.3	Verb Paradigms	
	4.4.4	Derivation	
	4.5 Fu	nction Words	
	4.5.1	Conjunctions	
	4.5.2	Determiners	
	4.5.3	Others	
	4.6 Oth	her Derivational Affixes	
	4.6.1	Adjectives	
	4.7 Res	syllabification	
	4.7.1	Resyllabification and Stress	
	4.8 Irre	egularities	
	4.8.1	Irregular Nouns	
	4.8.2	Irregular Verbs	
5	Syntax	-	39

	5.1	Typ	oology	. 39
	5.2	Not	ın phrases	. 39
	5.3	Adj	ective phrases	. 40
	5.3	3.1	Adjective Order	. 41
	5.4	Adv	verb phrases	. 41
	5.5	Ver	b Phrases	. 41
	5.5	5.1	Verb Transitivity	. 42
	5.5	5.2	Valency	. 45
	5.5	5.3	Other Complements	. 47
	5.6	Wo	rd order and meaning	. 47
	5.0	6.1	Subject-Object Word Orders	. 47
	5.0	6.2	Object-Subject Word Orders	. 48
	5.7	Neg	gation	. 49
	5.′	7.1	Phrase Negation	. 49
	5.′	7.2	Negation within Sentences	. 51
	5.8	que	stions	. 54
	5.8	8.1	Answering Questions	. 56
	5.9	Cor	nbining Clauses	. 57
	5.9	9.1	Independent Clauses	. 57
	5.9	9.2	Dependent Clauses	. 57
6	Se	emant	ics and pragmatics	. 58
	6.1	Idic	pms	. 58
	6.2	Pro	verbs	. 58
	6.3	Eup	ohemisms	. 59
	6.4	Pol	iteness	. 59
	6.4	4.1	Word Order	. 59
	6.4	4.2	Vocatives	. 59
7	W	riting	system	. 60
	7.1	Nat	ive Khahir System	. 60
	7.2	Tra	nsliteration System	. 61
	7.2	2.1	Hyphenation	. 61
8	Le	exicor	· - · · · · · · · · · · · · · · · · · ·	. 62

9	Phrase	Guide	67
10	Appen	dix	68
1	0.1	X-Bar Schema Representation of Khahir Word Orders	68
	10.1.1	SVO	68
	10.1.2	SOV	68
	10.1.3	OVS	69
	10.1.4	OSV	69
	10.1.5	VSO	69
	10.1.6	VOS	70

1 KHAHIR PEOPLE AND CULTURE

The Khahir (['qa.hir]) are a fictional ethnic group characterized by the a shared language, culture, and ancestry. The term 'Khahir' refers both to the endonym of the people as well as the name of the language.

1.1 Physiology

The Khahir people are particularly recognizable by their tall stature and strong builds. They tend to be dark-featured with varying shades of brown skin; thick, coarse, dark hair; and nearly black eyes. Their faces tend to be long and angular with prominent noses, cheek bones, and brows. These people possess both great physical strength and endurance including the ability to resist heat, cold, and often, pain.

1.2 HOMELAND

The Khahir people primarily live within the intervening high-altitude depressions and along the slopes of a series of intersecting and parallel mountain ranges. These mountain ranges consist of extremely high peaks. This region is characterized by taiga, steppe, and alpine meadow regions. Generally, the temperature and amount of precipitation increase as altitude increases, and the climate varies from cool and humid to semi-arid. The peaks of the mountains often have glaciers which provide water for lower-lying regions.

The lower slopes of this region are dominated by coniferous woodland. At higher altitudes, shrubs and bushes bearing berries, sedges, and grasses become more common while trees thin out. The trees at higher elevations are gnarled in shape, dense leaves, layered bark, typically smaller, and sparser.

At high altitudes, large wolves and bears are the primary predators. Their prey includes ungulates such as sheep, deer, and goats which can be found grazing in the alpine pastures and living on the rocky terrain. The endemic yak-like creature has been partially domesticated by the Khahir people for its production of meat, milk, and wool. Several other species of goat and sheep have also been partially domesticated for the same reasons. Other wildlife includes birds of prey like hawks and eagles, smaller birds (especially in lower regions), mustelids such as minks and martens, pikas, squirrels, rabbits, marmots, wolverines, trout, and bass, among others.

Natural resources of the region include obsidian outcrops from previous volcanic activity in the region, lumber, and medicinal plants.

1.3 CULTURAL EXPRESSION VIA APPEARANCE

Khahir attire is characterized by its practicality, simplicity, and frugalness and uses a mixture of knit and woolen fabrics, leather, and fur. These fabrics are typically dark and neutral in color or dyed as such to absorb the heat from the sun. The clothing uses very little ornamentation, and necessary attachments like buttons and clasps are plain and unassuming. Any accessories must also serve a functional purpose such as hair ribbons to tie back hair, bone and teeth necklaces that may be used to identify family groups, or brooches that pin fabric in place. Shawls, scarves, and cowls are a staple piece of clothing used to protect the face from wind and sun exposure. Outerwear is typically quite loose-fitting and shapeless while under layers are typically more tight fitting.

The most common piece of Khahir clothing is the yakul /jakul/: a long robe made of wool or sheepskin. These robes are bound at the waist with a thick sash that creates a pocket around the wearer's chest which may be used to store tools, materials, babies, and young livestock. Length can be adjusted with the sash at the waist. While this item of clothing can be worn in a variety of ways, it is commonly worn with one arm outside of the garment for ease of mobility.

Ornamental body modification is viewed as taboo in Khahir culture, including piercings and tattoos. Intentional modification to the body is only permitted if it has a functional benefit (removing malignant tissues, cutting hair for practicality or health reasons (keeping hair healthy by regularly trimming the ends), etc.) Hair may also be cut for symbolic reasons — typically to honor the death of someone close or as an exchange for a gift.

Anyone with long enough hair typically wears their hair braided. The traditional Khahir braiding style uses four strands of hair instead of three. Hair styles in which the hair is wrapped around the head or visibly shortened are not permitted as these are seen as decorative alterations. It is believed that hair should remain at its true length. Braids are often pinned to or tucked into clothing.

1.4 CULTURAL CREATIONS

The Khahir people carry the belief that any material object must serve a purpose. Because of this, many cultural creations made by the Khahir are simplistic, lack significant embellishment, and fully make use of the available resources.

1.4.1 Cuisine

The Khahir people primarily sustain their diets through the products of their livestock. Dairy products are staples to their cuisine including cheese, butter, yoghurt, milk, dried curds, and fermented milk drinks. Yak, goat, and sheep meat are all eaten, and it is common practice to use as many parts of an animal as possible. The Khahir also cultivate selected crops which can survive in high altitude environments including root and tuber varieties, leafy greens, and grasses that yield grains. Cooked porridge, dense breads with seeds, wide noodles, and fermented beverages are common uses of grain. Soups are a particularly common meal and often consist of meat, vegetables, and noodles. Wild berries are occasionally included in sweet varieties of bread.

1.4.2 Architecture

The overall architectural style of the Khahir is simplistic, angular, and attempts to blend in with the surrounding environment. Due to the mountainous terrain, most structures are laid in the direction of the slope. The Khahir have two primarily construction methods: rock-cut and drystone. Rock-cut architecture utilizes the excavation of solid rock in its original location. Along sheer slopes or cliffs, it is common for Khahir homes to be cut directly into the mountain. Drystone architecture conversely uses smaller stones or boulders to construct buildings without the use of mortar. In dry-stone construction, the stones are carefully interlocked, but gaps may be intentionally left for ventilation purposes. The stone quarried during rock-cutting may be used to construct dry-stone buildings. The floors and walls are often lined with rugs and hides as insulation.

1.4.3 Handicrafts

1.4.3.1 Textiles

All Khahir textiles are made from animal products such as fur, wool, and skin. Fur is typically used sparingly and is reserved for trim or lining; the average person will only have one or two clothing pieces, typically a coat, that consist fully of fur. Wool is either spun into yarn and woven or felted. The different animals of the region produce different textures, densities, and thickness of wool that are utilized to create a variety of clothing. The hides of animals may be tanned with the fur or fleece intact to create a pelt or may be tanned separately to create leather.

1.4.3.2 Stonework

Granite and obsidian are the most common stones that the Khahir work with. Granite is used in construction as well as the creation of tools including bowls, plates, pitchers, furniture, and cookware through chiseling and carving techniques. Often granite is engraved with angular patterns that allow for better grip. Historically, the Khahir language was also engraved in stone. Obsidian is primarily used in the construction of sharp-edged tools like blades, arrow heads, axes, and surgical equipment through knapping. Obsidian may also be polished to create mirrors, dishes, and beads.

1.4.3.3 Bone carving

Bone is another popular material in Khahir culture. Bone can be used to create a variety of tools including utensils, awls and needles, buttons, combs, beads, blades, instruments, toys, and many others. Bones are carved into the desired shape and often engraved.

1.4.4 Music

Khahir music typically exists in one of two domains: at home or at work. At home, songs may be used to recount oral history, soothe children, or to celebrate. At work, songs may be used to call livestock back towards the shepherd from high mountain pastures where they have been grazing or the day, scare away predators, or communicate between shepherds across large distances. Stretched leather drums and bone flutes are the most common instruments.

1.5 SOCIETY

The Khahir people live a primarily pastoralist lifestyle in which they practice animal husbandry of yaks, sheep, and goats. While the people themselves are primarily sedentary, their livestock wander between pastures as they desire, often seasonally, while only a certain number of people move with the animals as needed; this practice is called transhumance. Typically, in the warmer season the flocks move to higher pastures and move to lower pastures in the winter, but they may also move between pastures for other reasons such as quantity or quality of resources, presence of other flocks, and so forth.

Those who remain sedentary cultivate endemic plants as crops even at high altitudes. The livestock provides manure for any visiting flocks and areas of crops are available for the animals to eat. The Khahir and their animals have developed a symbiotic relationship. They allow the animals to move as they please but offer shelter if needed. The Khahir routinely check the health of the animals including detangling their coats, tending to injuries or illness, and cleaning

hooves. During visits from the animals, the Khahir will also shear or milk the animals as needed. Dogs are kept to help herd and protect livestock.

1.6 BELIEFS

1.6.1 Mythos

The Khahir also perceive the world as being comprised of four major elements – stone, earth, water, and air – which are directly analogous to the major elements of the body – bone, flesh, blood, and spirit. The Khahir creation myth states that the Khahir people were created directly from the land upon which they have always lived. Often the mountains that they live in are referred to as the Great Mothers. It is also believed that the mountains are comprised of the same proportions of stone, earth, water, and air as the human body is comprised of bone, flesh, blood, and spirit and are considered the optimal place for living.

1.6.2 Values

The core values of the Khahir people include kinship, practicality, honor, respect, resourcefulness, and self-sufficiency. Because of this, they rely on the land for all of their resources and use only what is required to survive.

1.6.3 Practices and Traditions

Khahir people trace their ancestry matrilineally and are identified based on their mother's lineage. Khahir families also follow a matrifocal structure in which mothers are the heads and representatives of their families. Women are typically the people who practice transhumance with the flocks of animals.

2 PHONEMIC INVENTORY

Phonemes are distinct units of sound in a given language that distinguish the meaning of one word from another.

2.1 VOWELS

Khahir consists of six (6) vowels.

- /o/ rounded closed-mid back
- /i/ unrounded closed front
- /u/ rounded close back
- /I/ unrounded near-close front
- /a/ unrounded open front
- $/\epsilon$ / unrounded open-mid front

2.2 DIPHTHONGS

Khahir possesses two (2) diphthongs. Diphthongs are sounds which combine two vowel sounds into a single syllable in which the sound shifts from one vowel to the other.

- /ei/
- /aī/

2.3 CONSONANTS

The consonants are distinct sounds that may be used to distinguish one word from other.

- /n/ voiced alveolar nasal
- /m/ voiced bilabial nasal
- /s/ voiceless alveolar fricative
- /h/ voiceless glottal fricative
- /t/ voiceless alveolar plosive
- /d/ voiced alveolar plosive
- /k/ voiceless velar plosive
- /q/ voiceless uvular plosive
- /v/ voiced labiodental fricative
- /r/ voiced alveolar tap
- /l/ Voiced alveolar lateral approximant
- /x/ voiceless velar fricative
- /y/ voiced velar fricative
- /ð/ voiced dental fricative
- /ʒ/ voiced post-alveolar fricative
- /w/ voiced labial-velar approximant
- $/d_3/$ voiced post-alveolar affricate
- /j/ voiced palatal approximant

Below is a chart organizing these sounds based on their manner and place of articulation. Where symbols appear in pairs, the one to the right represents a voiced consonant.

	Bilabial	Labio- dental	Dental	Alveolar	Post Alveolar	Palatal	Velar	Uvular	Glottal
Plosive				t d			k	q	
Nasal	m			n					
Тар				ſ					
Fricative		v	ð	S	3		x y		h
Approximant						j			
Lateral Approximant				1					

Due to /w/ having two places of articulation, it cannot be accounted for by the chart. Since the affricate $/\widehat{d_3}/$ combines a plosive with an immediately following fricative, it also cannot be accounted for by the chart.

3 Phonology

3.1 ALLOPHONIC VARIATION AND PHONOLOGICAL PROCESSES

An allophone is one of multiple potential phonetic realizations of a phoneme which do not contribute to distinctions in meaning. Allophones are phonologically conditioned, meaning that they occur in order to create similarities or distinctions from surrounding sounds.

3.1.1 Nasal Velarization

The phoneme /n/ becomes [ŋ] after velar sounds.

 $/n/ \rightarrow [n] / [+consonantal] _____$

[+dorsal]

3.1.2 Affricate Elision

The phoneme $/\widehat{d_3}/$ is elided after $/_3/$.

 $/\widehat{d_3}/ \rightarrow \emptyset / /_3/$ ____

3.1.3 Ejectivization

Khahir plosive consonants become ejectives when followed by another plosive consonant.

 $[+consonantal] \rightarrow [+glottalic] / ___ [+consonantal]$

[-continuant] [-continuant]

3.1.4 Uvularization

Khahir velar fricatives become uvular before a back vowel.

 $[+consonantal] \rightarrow [+back] / ___ [+syllabic]$ [+continuant] [-consonantal] [+delayed release] [+back]

[+dorsal]

3.2 PHONOTACTICS

The following rules govern the possible combinations of phonemes in Khahir.

3.2.1 Syllabic Structure

All Khahir words follow a (C) (C) V (C) syllabic structure. A Khahir syllable must minimally have a vowel at its nucleus and may have at most two consonants in its onset and at most one consonant in its coda. However, neither onsets nor codas are required.

3.2.1.1 Onset Constraints

- (a) Onsets must take one of the following forms.
 - a. Null (no onset)
 - b. Simple (a single consonant)
 - c. Complex
- (b) All consonants are permissible in simple onsets.
- (c) Onsets may only be complex if:
 - a. The second consonant in the sequence is /w/, /j/ or /r/
 - b. Does not contain one of the following consonant sequences:
 - /jj/
 - /jɾ/
 - /jw/

- /wj/
 /lw/
- /wr/

• /lr/

• /_{WW}/

• /11/ •

3.2.1.2 Coda Constraints

(a) Codas must take one of the following forms.

- a. Null (no coda)
- b. Simple (a single consonant)
- (b) Coda cannot contain /w/ or /j/ (a glide) or /h/

3.2.1.3 Types of Syllables

There are two major categories of syllables in Khahir: light and heavy.

A light syllable consists of

(a) Open syllable with a vowel

A heavy syllable consists of

- (a) Closed syllables
- (b) Open syllables with a diphthong

3.2.2 Syllabification

Periods will be used to mark syllable boundaries.

- (a) Two consecutive consonants in the middle of a word are separated by a syllable boundary
- (b) Consecutive consonants may only appear in the form of a complex onset
- (c) Consecutive consonants never geminate
- (d) Two consecutive vowels belong to separate syllables. Diphthongs are explicit and do not occur due to phonological environment.
- (e) If a consonant falls between two vowels, the consonant belongs to the onset of the second syllable

3.2.3 Consonant Clusters and Sonority

Consonant clusters in Khahir adhere to the Sonority Sequencing Principle which states that a syllable is most sonorous at its nucleus and decreases in sonority towards the edges of the syllables. Sonority refers to the relative loudness of a phonemic segment relative to the surrounding segments and is the result of continuous, non-turbulent airflow. The consonant sound closest to the nucleus of a syllable in a consonant cluster must be more sonorous than the consonant sound furthest from the vowel.

In Khahir, the sonority scale, from most to least sonorous, for categories of sounds is as follows:

Of the three consonants that are permissible in the second position of a consonant cluster, the phonemes /w/ and /j/ are glides, and the phoneme /r/ is a liquid. Because /r/ is less sonorous than /w/ and /j/ it may also be the first sound a consonant cluster with one of these other sounds as the second consonant, but /w/ and /j/ cannot be the first sound in a consonant cluster with /r/ as the second consonant. Additionally, consonant clusters consisting of two consonants from the same category of sonority are not permitted (i.e. /w/ and /j/ cannot be combined as they are both glides and /l/ and /r/ cannot be combined as they are both liquids). The constraints listed in 3.2.1.1 follow this sonority scale.

3.3 SUPRASEGMENTAL FEATURES

3.3.1 Stress

Stressed syllables are pronounced louder and slightly longer than unstressed syllables. The basic rules with which to determine placement of stress adhere to the following hierarchy:

(a) Heavy syllables carry stress

- (b) If a word contains multiple heavy syllables, the stress falls on the first heavy syllable
- (c) If a word only contains light syllables, the stress falls on the first light syllable

The full set of rules for determining stress placement will be discussed further in 4.6.1.

3.3.2 Tone and Intonation

Khahir is a toneless language such that it does not use pitch to distinguish lexical or grammatical meaning. Pitch, however, can serve many functions including indicating the speaker's attitude, to highlight a particular word or concept, to signal the type of the utterance, or to regulate the flow of discourse. This use of tone is called intonation. Below are four common Khahir intonation patterns:

- 1. Statement intonation falling pitch throughout an utterance
- 2. Question intonation significantly raised pitch for the duration of the question word (see section 4.5.3.2)
- 3. Emphatic intonation raised pitch on stress syllable of emphasized word and return to previous pitch on the following syllable
- 4. Digression intonation lower, unchanging pitch spoken with a faster rhythm

4 MORPHOLOGY

A morpheme is the smallest linguistic unit of meaning and is composed of one or more phonemes.

4.1 **Typology**

Khahir is a synthetic language that relies on agglutination, or the stringing together of multiple morphemes, to express grammatical information. Khahir primarily agglutinates suffixes to a basic or root form of a word. Each agglutinated suffix conveys the meaning of a single grammatical category, and the union of the root and the attached suffix creates a complex, complete meaning.

4.2 Nouns

4.2.1 Roots

All Khahir nouns must contain a root which carries the lexical meaning of the word. This root is usually one or two syllables in length. Below are several common noun roots in Khahir, along with their English equivalents.

Noun Root	Gloss
/kjinar/	'person, individual'
/ukja/	'water'
/inzal/	'rock, stone'
/xweit/	'mountain'
/vrai/	'day'
/zjaev/	'sky'
/hılak/	'(generic) wool'

4.2.2 Declension and Inflection

Khahir nouns decline, or change form, in order to convey different grammatical or syntactic information. Declensions utilize inflectional suffixes which create different manifestations of a word in order to fit different contexts rather than changing the overall meaning of a word. These inflectional suffixes almost always consist of light, unstressed syllables, and therefore, do not alter the location of stress within a word.

All nouns must decline in order to reflect **number**, **case**, and **definiteness**. Nouns may optionally decline in order to reflect a postpositional relationship.

4.2.2.1 Number

Number refers to how many of a given noun exist. Khahir distinguishes between singular (one) and plural (more than one) nouns.

Singular nouns are morphologically marked by a null (\emptyset) suffix, that is, on the surface there is no difference between the root form and the singular form of a noun. Only plural nouns are explicitly inflected for number.

Plural nouns take one of two allomorphs depending on the surrounding phonological environment. Like an allophone, an allomorph is a context-dependent form of a morpheme; despite its alternate forms, it still indicates the same morphological information.

- (a) The suffix /-k/ is attached if the preceding sound is a vowel or diphthong.
- (b) The suffix /-ık/ is attached if the preceding sound is a consonant.

4.2.2.2 Case

Case describes the syntactic function of a noun within a sentence. Khahir uses the nominative case, the accusative case, the dative case, the genitive case, and a general postpositional case. Cases and their usage will be discussed in further detail in Section 5.

The nominative case indicates the subject, or often the agent, of an action. Nouns in the nominative case are morphologically marked by a null (\emptyset) suffix.

The accusative case indicates the direct object, or the direct recipient, of an action. Nouns in the accusative case are morphologically marked by the suffix $/-3\epsilon/$.

The dative case indicates the indirect object, or the indirect beneficiary or recipient, of an action. Nouns in the dative case are morphologically marked by the suffix $/-s\epsilon/$.

The genitive case indicates that one noun modifies another noun to demonstrate an attributive or possessive relationship between the two nouns. Nouns in the genitive case are morphologically marked by the suffix $/-m\epsilon/$.

The postpositional case indicates the object of a postposition, that is, indicates when a noun exists in a relationship with a direction, time, or location. Nouns in the postpositional case are morphologically marked by the suffix /-w ϵ /. The postpositional case and its use will be discussed in further detail in Section 4.2.2.4.

4.2.2.3 Definiteness

Definiteness refers to whether or not the noun is identifiable (definite) in a given context. Khahir distinguishes between definite and indefinite nouns. Definite nouns are unique, specific, or familiar while indefinite nouns are not.

Indefinite nouns are morphologically marked by a null (\emptyset) suffix.

Definite nouns one of two allomorphs depending on their phonological environment.

- (a) The suffix /-t/ is attached if the preceding sound is a vowel or diphthong.
- (b) The suffix /-ta/ is attached if the preceding sound is a consonant.

4.2.2.4 Postpositional Case and Postpositional Clitics

In order to fully convey a postpositional relationship, a noun must possess both the postpositional case marking and a postpositional clitic that specifies the noun's relationship. A clitic is a morpheme that syntactically functions like a word, but it may never appear as an independent word and is therefore, phonologically dependent on another word. These postpositional clitics are always at the end of the word which they are modifying.

Below is a list of common postpositional clitics and their English glosses.

Postpositional Clitic	Gloss
/=id/	'in, at'
/no=/	'to, towards'
/=að/	'with'
/=IS/	'about, on the subject of, concerning'
/=ud/	'by, near'

4.2.2.5 Combining and Ordering Inflectional Noun Suffixes

The order of inflectional noun suffixes follows the formula:

Root + Number Suffix + Case Suffix + Definiteness Suffix + (Postpositional Clitic)

The root, number, case, and definiteness of a noun are all required information. Postpositional clitics are optional and occur as appropriate.

Below are all possible declensions for the following common noun roots.

(a) /kur/, meaning 'dog, hound'

(b) /lai/, meaning 'star'

		Nominative	Accusative	Dative	Genitive	Postpositional
Indefinite	Singular	/kur/ root + Ø + Ø + Ø 'a dog (subject)'	/kur 3ϵ / root + Ø + 3ϵ + Ø 'a dog (DO)'	/kursɛ/ root + \emptyset + sɛ + \emptyset 'a dog (IO)'	/kurmɛ/ root + \emptyset + mɛ + \emptyset 'of a dog'	/kurwɛað/ root + \emptyset + wɛ + \emptyset + (að) 'with a dog'
Inde	Plural	/kurık/ root + $Ik + \emptyset + \emptyset$ 'dogs (subject)'	/kurīkʒε/ root + īk + ʒε + Ø 'dogs (DO)'	/kurīksɛ/ root + īk + sɛ + Ø 'dogs (IO)'	/kurɪkmɛ/ root + ık + mε + Ø 'of dogs'	/kurıkweað/ root + 1k + we + Ø + (að) 'with dogs'
Definite	Singular	/kurta/ root + \emptyset + \emptyset + ta 'the dog (subject)'	/kur 3ϵ t/ root + Ø + 3ϵ + t 'the dog (DO)'	/kursɛt/ root + \emptyset + sɛ + t 'the dog (IO)'	/kurmet/ root + \emptyset + m ε + t 'of the dog'	/kurwɛtað/ root + \emptyset + wɛ + t + (að) 'with the dog'
Defi	Plural	/kurikta/ root + 1k + Ø + ta 'the dogs (subject)'	/kurık $3\epsilon t$ root + $1k + 3\epsilon + t$ 'the dogs (DO)'	/kuriks $\epsilon t/$ root + $ik + s\epsilon + t$ 'the dogs (IO)	/kurikm ϵt / root + ik + m ϵ + t 'of the dogs'	/kurikwɛtað/ root + $ik + w\varepsilon + t + (a\delta)$ 'with the dogs'

		Nominative	Accusative	Dative	Genitive	Postpositional
Indefinite	Singular	/lai/ root + Ø + Ø + Ø 'a star (subject)'	$/\widehat{lar_3\epsilon}/$ root + Ø + 3\varepsilon + Ø 'a star (DO)'	/laīsε/ root + \emptyset + sε + \emptyset 'a star (IO)'	$\sqrt{ aim\epsilon }$ root + Ø + m\epsilon + Ø 'of a star'	$/laiw \epsilon a \delta/$ root + \emptyset + w ϵ + \emptyset + ($a\delta$) 'with a star'
Inde	Plural	/laik/ root + k + Ø + Ø 'stars (subject)'	/laik 3ϵ / root + k + $3\epsilon + \phi$ 'stars (DO)'	$/laiks\epsilon/$ root + k + s ϵ + Ø 'stars (IO)'	$/laikm\epsilon/$ root + k + m ϵ + Ø 'of stars'	/laikweað/ root + k + we + Ø + (að) 'with stars'
nite	Singular	/lait/ root + Ø + Ø + t 'the star (subject)'	/laīʒɛt/ root + \emptyset + ʒɛ + t 'the star (DO)'	/laiset/ root + \emptyset + se + t 'the star (IO)'	/laimet/ root + \emptyset + m ε + t 'of the star'	$/\widehat{laiweta\delta}/$ root + Ø + we + t + (að) 'with the star'
Definite	Plural	/laikta/ root + k + Ø + ta 'the stars (subject)'	$/laik3\epsilon t/$ root + k + 3 ϵ + t 'the stars (DO)'	/laikset/ root + k + se + t 'the stars (IO)	/laikmet/ root + k + m ϵ + t 'of the stars'	/laikwetað/ root + k + w ε + t + (að) 'with the stars'

4.2.3 Derivation

Derivation is the process of creating a new word from an existing word. Khahir uses suffixes to derive new words. Unlike inflectional suffixes, derivational suffixes change the meaning of the root and often change the grammatical category of the word. Below are examples of derivational suffixes that are applied to noun roots.

4.2.3.1 Derivational Suffix /-va/

A noun can be transformed into another noun which means 'a location full of X.' The suffix /va/ is added directly after the noun root to do so. For example, the noun /tjul/ 'tree' can be made into the noun /tjulva/, meaning 'forest.'

4.2.3.2 Derivational suffix /-da/

A noun can be transformed into an adjective which means 'X like or resembling X.' The suffix /da/ is added directly after the noun root to do so. For example, the noun /inʒal/ 'stone' can be made into the adjective /inʒalda/, meaning 'stonelike, unmoving.'

4.2.3.3 Derivational Suffix /-us/

A noun can be transformed into an adjective which means 'made of the material X.' The suffix /us/ is added directly after the noun to do so. For example, the noun /hɪlɑk/ 'wool' can be made into the adjective /hɪlɑkus/, meaning 'woolen, made of wool.'

4.2.4 Noun Class System and Grammatical Gender

A noun class system is a grammatical system used to categorize nouns into particular groups based on a characteristic feature of the referent. These nouns are typically group based on semantic similarity, morphological similarity, or arbitrarily. Often noun class systems create a system of grammatical agreement in which given classes may require agreement of affixes on adjectives, affixes on verbs, pronouns, or numerals, among others. Grammatical gender is a type of noun class system in which nouns that have masculine or feminine referents, which may be determined semantically or arbitrarily, tend to be in separate classes.

The Khahir language does not use such systems. All nouns belong to the same noun class and therefore, all nouns take the same form of affix, adjectives, numerals, and so forth. While grammatical gender may not exist in the language, societal gender can still be conveyed semantically. While many words can be used to describe people and animals regardless of gender or biological sex, certain words are gendered.

4.3 SUBJECT PRONOUNS

A noun may be substituted with a subject pronoun which still refers to that noun. Like nouns, pronouns are also morphologically marked to convey grammatical information. Khahir pronouns reflect **person**, **case**, and **number**. **Person** is inherent in any pronoun, but pronouns decline to reflect **case** and **number**.

4.3.1 Person

Person describes to whom is being referred. Khahir distinguishes between first-, second-, and third-person. First-person refers to those who are speaking. Second-person refers to those who are being addressed. Third-person refers to those who are not part of the conversation. The root of a pronoun carries information about its person.

The root of a first-person pronoun is /ri/.

The root of a second-person pronoun is $/x\alpha/$.

The root of a third-person pronoun is /vo/.

4.3.2 Case

Case describes the syntactic function of a pronoun within a sentence. Just like nouns, pronouns may be in the nominative, accusative, dative, genitive, or postpositional cases.

Pronouns decline exactly the same as nouns and use the same inflectional case suffixes.

4.3.3 Number

As with the **number** of nouns, pronouns can either be singular or plural.

Singular pronouns are morphologically marked by a null (\emptyset) suffix.

Because all pronoun roots end in a vowel, the plural suffix for pronouns is /-k/.

4.3.4 Order of Inflectional Suffixes

The order of inflectional suffixes for pronouns follows the formula:

 $Root + Number \ Suffix + Case \ Suffix$

All parts of the formula are required information.

		Nominative	Accusative	Dative	Genitive	Postpositional
r	1st	/ri/	/ri3e/	/risɛ/	/rimɛ/	/riwɛ/
Singular	2nd	/xa/	/xa3e/	/xasɛ/	/xame/	/xawe/
S	3rd	/vo/	/vo3ɛ/	/vosɛ/	/vomɛ/	/vowɛ/
	1st	/rik/	/rik3ɛ/	/riksɛ/	/rikmɛ/	/rikwɛ/
Plural	2nd	/xak/	/xakʒɛ/	/xaksɛ/	/xakmɛ/	/xakwe/
	3rd	/vok/	/vok3ɛ/	/voksɛ/	/vokmɛ/	/vokwɛ/

Below is a chart of all possible Khahir subject pronouns.

4.3.5 Gender

In additional to not having grammatical gender, Khahir pronouns also do not reflect societal gender. The same pronoun can be used to refer to a person regardless of their gender, an animal, an inanimate object, a concept, and so forth.

4.4 VERBS

4.4.1 Roots

All Khahir verbs must contain a verbal root which carries the lexical meaning of the word. This root is usually one or two syllables in length. Below are several common verb roots in Khahir, along with their English equivalents.

Verb Root	Gloss
/qm/	'to want'
/yɛl/	'to like'
/ɛx/	'to know'
/ðol/	'to speak'
/xod/	'to eat'

4.4.2 Inflection and Conjugations

Khahir verbs conjugate, or change form, in order to convey different grammatical or syntactic information. Conjugations utilize inflectional suffixes which create different manifestations of a word in order to fit different contexts rather than changing the overall meaning of a word. These

inflectional suffixes almost always consist of light, unstressed syllables, and therefore, do not alter the location of stress within a word.

All verbs must conjugate in order to reflect **person**, **tense**, **aspect**, and **number**. Each piece of grammatical information is encoded in a separate morpheme. The **person** and **number** of a verb reflects the noun which is performing the verb.

4.4.2.1 Person

As with pronouns, Khahir verbs reflect the **person** of the agent performing the verb. Verbs must either be in the first-, second-, or third-person.

Verbs conjugated in the first-person, /ri/ or /rik/, take the suffix /-r/.

Verbs conjugated in the second-person, /xa/ or /xak/, take the suffix /-x/.

Verbs conjugated in the third-person, /vo/ or /vok/, take the suffix /-v/.

Note how the verbal suffix for person corresponds to the first sound in the associated pronoun.

4.4.2.2 Tense

Tense describes when an action occurs. Khahir distinguishes between three tenses: past, present, and future. The past tense describes actions that have already occurred. The present tense describes ongoing or habitual actions. The future tense describes actions that have not yet occurred.

Verbs conjugated in the past tense take the suffix /-a/.

Verbs conjugated in the present tense take the suffix /- ϵ /.

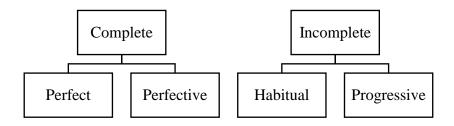
Verbs conjugated in the future tense take the suffix /-o/.

4.4.2.3 Aspect

Aspect describes how an actual or event extends over time. Khahir primarily distinguishes between complete and incomplete actions. Complete actions can either take the perfect or perfective aspect. Incomplete actions can either take the habitual or progressive aspects. Khahir also uses the secondary aspect of distance.

The perfective aspect describes actions that are complete or whole. The perfect aspect describes actions that occur prior to a specific time but has continuing relevance to the time of reference. Conversely, the habitual aspect describes actions that are occur regularly or repetitively. The progressive aspect describes states or actions that are ongoing at a specific time. The distance aspect refers to events that occur a long time away from other referenced events or the time of speaking and can, therefore, only be used with the past and future tenses.

The perfective aspect most frequently occurs in conjunction with the past or future tenses. When



used with the present tense, it creates the meaning of having very recently completed an action. This aspect is morphologically marked by the suffix /-s/.

The perfect aspect can be used in conjunction with all tenses. This aspect is morphologically marked by the suffix /-d/.

The habitual aspect can be used in conjunction with all tenses. This aspect is morphologically marked by a null (\emptyset) suffix.

The progressive aspect can be used in conjunction with all tenses. This aspect is morphologically marked by the suffix /-l/.

The distance aspect can only be used in conjunction with past or future tenses. This aspect is morphologically marked by

- (a) The suffix /-n/ is attached if the preceding sound is a vowel.
- (b) The suffix /-In/ is attached if the preceding sound is a consonant.

4.4.2.4 Number

Khahir verbs must conjugate in order to reflect the **number** of the agent performing the verb. Verbs are conjugated according to single or plural agents.

Singular verbs are morphologically marked by a null (\emptyset) suffix.

Plural verbs take a different suffix depending on their environment.

- (c) The suffix /-k/ is attached if the preceding sound is a vowel.
- (d) The suffix /-Ik/ is attached if the preceding sound is a consonant.

4.4.2.5 Combining and Ordering Inflectional Verb Suffixes

The order of inflectional verb suffixes follows the formula:

Root + Person Suffix + Tense Suffix + Aspect Suffix + (Aspect Suffix) + Number Suffix

4.4.3 Verb Paradigms

A verb paradigm contains all conjugated variants of a given verb or set of verbs. The vast majority of Khahir verbs conjugate predictably according to the rules and formula as listed above regularly. Verbs that have predictable conjugations based upon the conjugation patterns of the language are called regular. The majority of Khahir verbs are regular verbs. Therefore, given the verb paradigm for a single verb root in Khahir, it is possible to predict the possible conjugations of most other verb roots. Irregular verbs and their conjugations will be discussed in section 4.8.2.

The following sections provide an example of the full verb paradigm of a single verb root /ðol/, meaning 'to speak.' These conjugations are provided together in a table. For each of the four aspects, three conjugations will be provided as interlinear glosses to demonstrate each main tense. The following interlinear glosses provide the Khahir verb represented in IPA, a morpheme-by-morpheme gloss in English, and an approximate English gloss.

Section 4.2.2.5 briefly alluded to the presence of morpheme boundaries in the tables demonstrating the declensions of Khahir verbs but did not properly demonstrate such boundaries. Hyphens are used to indicate morpheme boundaries both in the phonemic example and the gloss

but do not influence pronunciation of IPA transcriptions. Many Khahir morphemes have a one-to-one correspondence between an object-language element and a metalanguage element; for example, the suffix /-x/ which directly follows the verb root corresponds with the metalanguage element of 2^{nd} -person.

However, in many instances, the lack of an object-language element (for instance, the suffix marking number or definiteness) actually indicates a metalanguage element. Because hyphens are reserved for one-to-one object-language and metalanguage element correspondences, a period must be used instead to still convey information about the underlying metalanguage element. Periods are only used in glosses, and the period is placed where a hyphen would be if there was a separate object-language element denoting a metalanguage element. It is possible to have multiple metalanguage elements joined by periods. For example, the noun /kur/ 'dog' underlying conveys information the number, definiteness, and case of the noun despite a lack of explicit morphemes marking this information. Therefore, a morpheme-by-morpheme gloss of the word would be as follows: dog.SG.NOM.INDF.

With both hyphens and periods, the order of metalanguage elements follows the order of morphemes regardless of whether such morphemes are explicit or not.

These conventions will be used throughout the remainder of this document when providing interlinear glosses.

4.4.3.1 Non-Finite Forms

The root form of any Khahir verb typically acts as the infinitive form of a verb but cannot be used without taking some sort of suffix. When it is necessary to refer to an action itself without known inflection for number and person, the **nominal infinitive** suffix /-sa/ is added. With this suffix, a verb may act as a subject or direct object in a sentence. This form may be thought of as a verbal noun.

	/ ri /	/xa/	/vo/	/rik/	/xak/	/vok/
PAST	/ðolras/	/ðolxas/	/ðolvas/	/ðolrasık/	/ðolxasık/	/ðolvasık/
DIS. PAST	/ðolrasın/	/ðolxasın/	/ðolvasın/	/ðolrasınık/	/ðolxasınık/	/ðolvasınık/
PRESENT	/ðolrɛs/	/ðolxɛs/	/ðolvɛs/	/ðolresık/	/ðolxɛsık/	/ðolvɛsık/
FUT.	/ðolros/	/ðolxos/	/ðolvos/	/ðolrosık/	/ðolxosık/	/ðolvosık/
DIS. FUT.	/ðolrosın/	/ðolxosın/	/ðolrosın/	/ðolrosınık/	/ðolxosınık/	/ðolvosınık/

4.4.3.2 Perfective Forms

(1) /ðol-r-a-s-ın/ speak-1-PST-PFV-DIST.SG 'I spoke (once) (far in the past)'

- (2) /ðol-x-ε-s/ speak-2-PRS-PFV.SG
 'You just spoke'
- (3) /ðol-v-o-s-ık/ speak-3-FUT-PFV-PL 'They will speak (once)'

4.4.3.3 Perfect Forms

	/ ri /	/xa/	/vo/	/rik/	/xak/	/vok/
PAST	/ðolrad/	/ðolxad/	/ðolvad/	/ðolradık/	/ðolxadık/	/ðolvadık/
DIS. PAST	/ðolradın/	/ðolxadın/	/ðolvadın/	/ðolradınık/	/ðolxadınık/	/ðolvadınık/
PRESENT	/ðolrɛd/	/ðolxɛd/	/ðolved/	/ðolred1k/	/ðolxɛdık/	/ðolvedık/
FUT.	/ðolrod/	/ðolxod/	/ðolvod/	/ðolrodık/	/ðolxodık/	/ðolvodık/
DIS. FUT.	/ðolrodın/	/ðolxodın/	/ðolrodın/	/ðolrodınık/	/ðolxodınık/	/ðolvodınık/

- (4) /ðol-r-a-d-ık/ speak-1-PST-PFV-PL 'We had spoken'
- (5) /ðol-x-ε-d/ speak-2-PRS-PFV.SG
 'You have spoken'
- (6) /ðol-v-o-d-ın/ speak-3-FUT-PFV-DIST.SG
 'He/she/it will have spoken (far in the future)'

4.4.3.4 Habitual Form

	/ri/	/xa/	/vo/	/rik/	/xak/	/vok/
PAST	/ðolra/	/ðolxa/	/ðolva/	/ðolrak/	/ðolxak/	/ðolvak/
DIS. PAST	/ðolran/	/ðolxan/	/ðolvan/	/ðolranık/	/ðolxanık/	/ðolvanık/
PRESENT	/ðolrɛ/	/ðolxɛ/	/ðolvɛ/	/ðolrɛk/	/ðolxɛk/	/ðolvɛk/
FUT.	/ðolro/	/ðolxo/	/ðolvo/	/ðolrok/	/ðolxok/	/ðolvok/
DIS. FUT.	/ðolron/	/ðolxon/	/ðolron/	/ðolron1k/	/ðolxonık/	/ðolvonık/

- (7) /ðol-r-a-n/
 speak-1-PST-HAB.SG-DIST
 'I used to speak (far in the past)'
- (8) /ðol-x-ε/ speak-2-PRS-HAB.SG
 'You speak'
- (9) /ðol-v-o-k/ speak-3-FUT-HAB-PL 'They will speak (repeatedly)'

	/ ri /	/xa/	/vo/	/rik/	/xak/	/vok/
PAST	/ðolral/	/ðolxal/	/ðolval/	/ðolralık/	/ðolxalık/	/ðolvalık/
DIS. PAST	/ðolralın/	/ðolxalın/	/ðolvalın/	/ðolralınık/	/ðolxalınık/	/ðolvalınık/
PRESENT	/ðolrɛl/	/ðolxɛl/	/ðolvɛl/	/ðolrel1k/	/ðolxɛlık/	/ðolvɛlık/
FUT.	/ðolrol/	/ðolxol/	/ðolvol/	/ðolrol1k/	/ðolxolık/	/ðolvolık/
DIS. FUT.	/ðolrolın/	/ðolxolın/	/ðolrolın/	/ðolrolınık/	/ðolxolınık/	/ðolvolınık/

4.4.3.5 Progressive Forms

- (10) /ðol-r-a-l-ık/ speak-1-PST-PRG-PL 'We were speaking'
- (11) /ðol-x-ε-l/ speak-2-PRS-PRG.SG
 'You are speaking'
- (12) /ðol-v-o-s-ın/ speak-3-FUT-PRG.SG-DIST
 'He/she/it will be speaking (in the far future)'

4.4.3.6 Imperative Form

The imperative form is used to give commands, advice, or requests. They imply a second-person subject since this verb form is always spoken directly to another person. To form an imperative verb, the suffix /-qo/ is added to a verb root. For example, the verb /ðol/ 'to speak' becomes /ðolqo/, meaning 'Speak!'

4.4.4 Derivation

Below are examples of derivational suffixes that are applied to verb roots.

4.4.4.1 Agentive Suffix /- $\varepsilon v/$

A verb can be transformed into a noun to denote someone or something that habitually performs an action as the agent by adding the suffix /- εv /. For example, the verb root /karad/ 'to herd, to shepherd' becomes /karad εv /, meaning 'shepherd, shepherdess.'

4.4.4.2 Nominalization Suffix /-ei/

A verb can be transformed into a noun to denote the result of action X by adding the suffix /-ei/. For example, the verb root / ∂ol / 'to speak' becomes / $\partial olei$ /, meaning 'speech.' It should be noted that this derivation describes the result of an action rather than the processes of the action; to describe this concept, a different suffix is used. This should also not be confused with the verbal noun created by adding /-sa/ which describes the action itself.

4.4.4.3 Nominalization Suffix /-uk/

A verb can be transformed into a noun to denote the process of the action X by adding the suffix /-uk/. For example, the verb root /ðol/ 'to speak' becomes /ðoluk/, meaning 'speaking, the process of speaking.' Again, this form should not be confused with the verbal noun created by adding /-sa/ which describes the action itself.

4.4.4.4 /-ain/

A verb can be transformed into another verb to denote the opposite or reversal of action X by adding the suffix /-ain/. For example, the verb root /kwar/ 'to learn' becomes /kwarain/, meaning 'to unlearn, to reverse the process of learning, to forget.'

4.5 FUNCTION WORDS

4.5.1 Conjunctions

Conjunctions are used to connect words, phrases, or clauses together. Below are the three most common conjunctions in Khahir.

/εk/ 'and' /εl/ 'or' /αv/ 'but'

4.5.2 Determiners

A determiner is a class of words that modifies a noun or noun phrase in terms of its reference, or describes which noun is being referred to in terms of its relationship to other contextual factors such as distance, number, and possession.

4.5.2.1 Possessive Determiners

Possessive determiners describe to whom or what a noun belongs. Possessive determiners in Khahir are created by removing the consonant at the beginning of a nominative subject pronoun

and placing this word after a noun. Possessive determiners do not decline to reflect the number, case, or definiteness of the noun which they are modifying but do inherently reflect the number and person of the possessor. The case of the possessor is also not morphologically distinguished. Possessive determiners always follow an indefinite noun but this construction denotes that the noun is known and therefore, definite.

Subject Pronoun	Possessive Determiner	Example
/in/	/i/	/kur i/ 'my dog'
/xa/	/a/	/kur ak/ 'your (sg.) dog'
/vo/	/0/	/kur o/ 'his/her/its dog'
/rik/	/ik/	/kur ik/ 'our dog'
/xak/	/ak/	/kur ak/ 'your (pl.) dog'
/vok/	/ok/	/kur ok/ 'their dog'

4.5.2.2 Demonstratives

Demonstratives are words used to indicate which entities are being referred to. Khahir uses three main categories of demonstratives, based upon the proximity of the entity: proximal, medial, and distal. Demonstratives can either modify a noun (demonstrative determiner or demonstrative adjective) or function as pronouns that replace the noun itself; both of these functions take the same base form, but only demonstrative pronouns are declined to reflect the number, definiteness, and case of the referent, according to the same rules as nouns and other pronouns. Demonstrative pronouns always refer to a third-person entity.

Below are the possible demonstrative determiners and their meanings.

	Demonstrative	Gloss	Examples	Gloss
Proximal	/vi/	'this, these'	/kur vi/ /kurık vi/	'this dog' 'these dogs'
Medial	/vil/	'that, those'	/kur vil/ /kurık vil/	'that dog' 'those dogs'
Distal	/vit/	'that over there, those over there'	/kur vit/ /kurık vit/	'that dog over there' 'those dogs over there'

_		Nominative	Accusative	Dative	Genitive	Postpositional
	Prox.	/vi/	/viʒɛ/	/visɛ/	/vimɛ/	/viwɛ/
Singular	Med.	/vil/	/vilʒɛ/	/vilsɛ/	/vilmɛ/	/vilwɛ/
•1	Dist.	/vit/	/vitʒɛ/	/vitsɛ/	/vitmɛ/	/vitwɛ/
	Prox.	/vik/	/vikʒɛ/	/viksɛ/	/vikmɛ/	/vikwɛ/
Plural	Med.	/vilɪk/	/vilīkʒɛ/	/vilīksɛ/	/vilɪkmɛ/	/vil1kwɛ/
	Dist.	/vitɪk/	/vit1k3ɛ/	/vit1ksɛ/	/vitɪkmɛ/	/vit1kwɛ/

Below are all possible demonstrative pronouns.

4.5.2.3 Quantifiers

Quantifiers describe how much or how many of a given noun exists. Quantifiers function as adjectives. Below are the most common Khahir quantifiers, arranged from least to greatest quantity.

/jad/ 'no, none' /kalɛ/ 'few' /waix/ 'some' /suʒ/ 'many, a lot' /lɪn/ 'all'

Quantifiers are always followed by a plural noun. Depending on whether a quantifier is used in conjunction with an indefinite or definite noun, the meaning changes slightly.

A quantifier combined with an indefinite noun refers to the noun generally or sometimes abstractly. For example, /kurik waix/ 'some dogs' refers to dogs in general and selects a subset of them, although the subset is also unspecified.

A quantifier combined with a definite noun refers to subgroup of a specific larger group. For example, /kurikta waix/ 'some of the dogs' refers to a specific group of dogs and selects a subset of dogs from a defined group.

4.5.2.4 Numbers

The numbers 0 through 10 are listed below.

/Ið/ 'zero'	/kais/ 'six'
/hwar/ 'one'	/jɛd/ 'seven'
/il/ 'two'	/hin/ 'eight'
/raq/ 'three'	$/d\hat{z}al/$ 'nine'
/yein/ 'four'	/a.3a/ 'ten'

/ot/ 'five'

The numbers 11 through 19 can be formed by adding the morpheme /k/, roughly meaning 'and,' and a numeral from 1 through 9 to the word for 'ten' / $\alpha_3\alpha$ /. For example, the number 11 / $\alpha_3\alpha$ k.hwar/ may be translated as 'ten and one.'

/a.zak.hwar/ 'eleven'	/a.zak.raq/ 'thirteen'
-----------------------	------------------------

/a.za.kil/ 'twelve'

Multiples of ten (such as 20, 30, 40, etc.) are formed by taking a digit 2 through 9 and adding the morpheme /3a/. Multiples of ten may be translated as 'two tens,' 'three tens,' 'four tens,' and so forth.

/il.3a/ 'twenty'	/kais.3a/ 'sixty'
/raq.za/ 'thirty'	/jɛd.ʒa/ 'seventy'
/yein.3a/ 'forty'	/hɪn.ʒa/ 'eighty'
/ot.3a/ 'fifty'	/d͡ʒal.ʒa/ 'ninety'

Just as with the numbers 11 through 19, morpheme /k/ and a numeral from 1 through 9 can be added after a multiple of ten. Therefore, the number 21 is expressed as /il.ʒɑk.hwɑr/ 'two tens and one.'

/il.zak.hwar/ 'twenty-one'

/il.3ak.raq/ 'twenty-three'

/il.za.kil/ 'twenty-two'

Multiples of one hundred and one thousand follow the same rules as multiples of tens. The morpheme meaning 'hundred' is $/ai_3/$ and the morpheme meaning 'thousand' is $/i_3/$. Just like multiples of ten, multiples of one hundred and one thousand can be translated as 'X number of hundreds' or 'X number of thousands.'

/hwa.raīz/ 'one hundred'	/hwa.ri3/ 'one thousand'
/i.laīʒ/ 'two hundred'	/i.li3/ 'two thousand'
/ra.qa13/ 'three hundred'	/aʒa.iʒ/ 'ten thousand'

The morpheme $/\epsilon k/$ adds smaller values (single-digit and double-digit numbers) to multiples of one hundred and one thousand. This morpheme also translates to 'and' and indicates the addition of numbers to the preceding value. For example, the number 121 is expressed as /hwa.rai.3 ϵ .kil.3ak.hwar/, meaning 'one hundred and two tens and one'.

/hwa.rai.3ek.hwar/ 'one hundred and one'

/hwa.rai.zɛ.kil.zak.hwar/ 'one hundred and twenty-one'

/hwa.ri.zek.hwar/ 'one thousand and one'

/hwa.ri.ze.kil.zak.hwar/ 'one thousand and twenty-one'

As a general rule, when a smaller value X precedes a larger value Y, it indicates that there are X amounts of the value of Y. This can be seen in the rules for constructing multiples of tens, hundreds, and thousands. For example, the number 100,000 is expressed as /hwa.rai.ʒiʒ/, meaning 'one hundred thousands.'

4.5.3 Others

4.5.3.1 Affirmative and Negative Particles

These words are used to answer questions or make assertions about agreement or disagreement. Khahir uses a four-form system in which it is possible to affirm or contradict both positively and negatively formulated questions. The particles are as follows:

/tak/ 'yes,' used to confirm positively formulated question

/jak/ 'no', used to contradict a positively formulated question

/jan/ 'no', used to contradict a negatively formulated question

/tan/ 'yes', used to affirm a negatively formulated question

Explicit examples of this will be given in section 5.9.1.

4.5.3.2 Interrogatives

Interrogatives are words used to form questions. Interrogative words are characterized and recognizable by their first phoneme $\epsilon/$. Below are all of the basic interrogative Khahir words.

/ɛv/ 'who'	/ɛna/ 'when'
$/\epsilon r/$ 'what'	/ɛt/ 'why'
/ɛs/ 'where'	/ɛka/ 'how'
/ɛsa/ 'to where'	/ɛda/ 'which'
/ɛwa/ 'from where'	ϵ m/ 'how much, how many'

The words $/\epsilon v/$ 'who' and $/\epsilon r/$ 'what' can be declined according to case, but do not decline according to number or definiteness.

 $/\epsilon v 3\epsilon$ 'whom' $/\epsilon v s\epsilon$ 'to whom'

/ɛvmɛ/ 'whose'	/erse/ 'to what (indirect object)'
/ɛvwɛ/ 'with, near, by, etc. whom'	/ɛɾmɛ/ 'of what'
/ɛɾʒɛ/ 'what (direct object)'	/ɛɾwɛ/ 'with, near, by, etc. what'

Additionally, declarative sentences can be transformed into yes-or-no questions by placing the particle $\epsilon/$ at the beginning of an utterance.

Full examples of questions will be provided in section 5.8.

4.5.3.3 Relative Pronouns and Relative Adverbs

Relative pronouns connect a clause or phrase to a pronoun or noun. This clause describes the noun or provides additional information about that noun. A relative adverb connects a clause or phrase to a verb, providing additional information about that verb, such as location, time, or manner.

In Khahir, relative pronouns and adverbs are formed by changing the $\epsilon/$ at the beginning of an interrogative word (and its declensions, if applicable). This process, however, cannot be applied to $\epsilon m/$ 'how much, how many.' Below are all possible relative pronouns and adverbs.

/iv/ 'who'	/irwɛ/ 'with, near, by, etc. that'			
/ivʒɛ/ 'whom'	/is/ 'where'			
/ivsɛ/ 'to whom'	/isa/ 'to where'			
/ivmɛ/ 'whose'	/iwa/ 'from where, from whence, whence'			
/ivwe/ 'with, near, by, etc. whom'	/ina/ 'when'			
/ic/ 'that'	/it/ 'why'			
/ir3ɛ/ 'that (direct object)'	/ika/ 'how'			
/irse/ 'to that (indirect object)'	/ida/ 'which'			
/icmc/ 'of that'				

/irmɛ/ 'of that'

Examples of sentences using relative pronouns will be provided section 5.9.2.

4.5.3.4 Reflexive Pronouns

Reflexive pronouns are used to refer to the object of a verb when the object refers to the same noun as the subject. Khahir reflexive pronouns are formed by attaching personal and number suffixes to the word $/n\epsilon/$ meaning 'self.'

First-person pronouns take the suffix /-r/, second-person pronouns take /-x/, and third-person pronouns take /-v/. Plural pronouns take the suffix /-1k/. Like other pronouns, the person suffix precedes the number suffix.

Below are the possible reflexive pronouns.

Subject Pronoun	Reflexive Pronoun	Gloss	Examples		
/ri/	/nɛɾ/	'myself'	/ri ðolras nær/ 'I talk to myself'		
/xa/	/nɛx/	'yourself'	/xa ðolxel nexweis/ 'You are talking about yourself		
/vo/	/nev/	'his/her/itself'	/sılaı ɛlvromvas nɛv/ 'Sîlai washed herself'		
/rik/	/nɛrɪk/	'ourselves'	/rik eizdzan nerik ruxwetud/ 'we warmed ourselves by the fire'		
/xak/	/nɛxɪk/	'yourselves'	/xak iyxedik nexik/ 'you have healed yourselves'		
/vok/	/nevik/	'themselves'	/vok vusv ϵ n ϵ vik/ 'they understand themselves'		

Reflexive pronouns do not occur in the nominative case. Although reflexive pronouns function as the object of an action (either direct or indirect), they do not usually take case markings because their syntactic function is implied based on their semantic meaning. Reflexive pronouns only take case markings when in the postpositional case, but this only occurs in a few constructions usually involving the postpositional clitic /-ɪs/ meaning 'about'.

4.5.3.5 Reciprocal Pronouns

Like reflexive pronouns, reciprocal pronouns are used when the subject and object of a verb are the same; however, in the case of reciprocal pronouns are used when members of a group perform the same action relative to one another. Because of this, reciprocal pronouns require a plural subject. The stem /hwarjil/ means 'each other, one another', comprised of the two roots /hwar/ 'one' and /jil/ 'other, another,' and case suffixes are added as needed.

Reciprocal pronouns do not occur in the nominative case. Like reflexive pronouns, a null morpheme on a reciprocal pronoun actually indicates the accusative case, but the dative, genitive, and prepositional cases are inflected regularly according to previous case making rules. Therefore, the four possible reciprocal pronouns are as follows:

- /hwarjil/ 'each other, one another'
- /hwarjilsɛ/ 'to each other, to one another'
- /hwarjilmɛ/ 'of each other, of one another'
- /hwarjilwɛ/ 'with, on, near, etc. each other; with, on, near, etc. one another'

4.6 OTHER DERIVATIONAL AFFIXES

4.6.1 Adjectives

Adjective \rightarrow Adverb Derivation

An adjective can be transformed into an adverb to denote a verb is being done in a specific manner or to a certain degree by adding the suffix /-im/. For example, the adjective /uʒ/ 'quick, fast' becomes /uʒim/ 'quickly.'

Adjective \rightarrow Inchoative Verb Derivation

An adjective can be transformed into a verb which means 'to become X'; this sort of verb is referred to as an inchoative verb. These verbs are used intransitively (more on verb transitivity in section 5.5) and describe a change in the state of the subject. The suffix /-dza/ is added directly after the adjective to do so, forming a new verb stem. For example, the adjective /kal/ 'small' can be made into the verb /kaldza/, meaning 'to become small, to shrink.'

Inchoative Verb \rightarrow Causative Verb Derivation

An inchoative verb can be transformed into a verb which means 'to make something become X'; this sort of verb is referred to as a causative verb. These verbs are used transitively and describe a change that the agent of the verb enacts on something else. The suffix /-n/ is added directly after an inchoative verb stem and forms a new verb stem. For example, the verb /kaldʒa/ 'to become small, to shrink' can be made into the verb /kaldʒan/, meaning 'to make small, to lessen something.'

4.7 **Resyllabification**

The addition of affixes (either inflection or derivational) often shifts the syllable boundaries within a Khahir word, that is consonants may become onsets or codas of syllables of other syllables than the one from which it came. This phonological process occurs according to the syllabification rules listed in 3.2.2.

For instance, the root form of 'dog' is /kur/. The suffixes /-1k/, /-mɛ/, and /-t/ can be added to the root to create a more nuanced meaning. As individual morphemes, these affixes exist as separate syllables, but when these morphemes combine, the phonemes are reassigned to syllables according to the syllabification rules of Khahir. Hyphens are used to indicate morpheme boundaries while periods are used to indicate syllable boundaries. Periods in this instance should not be confused with boundary markers for metalanguage elements.

/kur-ık-mɛ-t/ → [ku.rık.mɛt]

The underlying force of resyllabification is the Maximal Onset Principle which states that intervocalic consonants default to the onset position of a syllable according to the syllable structure constraints of the language.

4.7.1 Resyllabification and Stress

Although the addition of affixes may shift syllable boundaries, generally the location of stress within a word does not shift due to additional morphemes. The stress rules as described in 3.3.1 exclusively to the root of a Khahir word, that is, additional morphemes attached to a root generally due do not shift the stress outside of that root form, even if resyllabification occurs within the root. More specifically, the stress within in the root form remains on the nucleus on which it originally existed, regardless of the syllable shape of the syllable after resyllabification.

For example, the root /tɛ.'ʒɛm/, meaning 'friend,' is stressed on its second syllable since within the root, the second syllable is a closed and therefore, heavy syllable. If the root becomes inflected to be plural as /tɛ.'ʒɛm-ık/, the word becomes resyllabified as [tɛ.'ʒɛ.mık]. Even though the last syllable becomes heavy after resyllabification, the stress must remain where it was

originally in the root form. This phenomenon of maintaining stress within the root applies to nearly all Khahir words.

Therefore, the complete rules with which to determine placement of stress adhere to the following hierarchy:

- 1. Identity the root form
- 2. Within the root form, identity heavy versus light syllables
 - a. Heavy syllables take priority over weak syllables for stress
 - b. When multiple heavy syllables occur, the first syllable is stressed
 - c. When a root consists entirely of light syllables, the first syllable is stressed
- 3. If affixation and resyllabification occur, the stress remains on the same nucleus sound on which it originally existed

Beyond these primary rules, there exist some less frequent rules that account for certain irregularities:

- 1. If the word is a compound word consisting of multiple roots, the first root is examined for determining stress
- 2. The first syllable of a numeral, regardless of whether it is a heavy or light syllable and the presence of other heavy or light syllables

Still yet there are a few instances of stressed syllables that are completely irregular and cannot be predicted. For example the Khahir word meaning 'animal' is pronounced ['a.sır] even though according to the stress rules of the language, the stress should be on the second syllable.

4.8 IRREGULARITIES

While the majority of Khahir content words are regularly, there are some nouns and verbs that do not decline or conjugation according to the previously established rules. These are called irregular nouns or verbs. Below are examples.

4.8.1 Irregular Nouns

An irregular noun is considered as such if it does not decline in number, case, or definition as expected according to the established paradigm for declension. There are relatively few irregular nouns in Khahir and mostly involve irregularities in plurality. For example, the word /kustuk/ means 'hair' and is always plural; there exists so singular form of the word, and so /kustu/ is not a word. Similarly, /kustuk/ should not be mistaken for a singular to which the plural suffix /-Ik/ is added.

4.8.2 Irregular Verbs

There are five (5) verbs which do not conjugate regularly in many of their forms. Despite not following the expected rules for conjugation, four (4) irregular verbs conjugate quite similarly. Irregular forms are underlined.

]	PERFECTIVE	C	HABITUAL		
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
ST	<u>/uras</u>	<u>/uxas</u>	<u>/uvas</u>	/ura(k)/	/uxa(k)/	/uva(k)/
PAST	<u>(urax)/1</u>	<u>(uxax)/</u>	<u>(uvax)/</u>	/ uru(K)/	/ uAu(R)/	/ u vu(K)/
PRES.	_	_	_	<u>/ur(1k)/2</u>	<u>/ux(1k)/</u>	<u>/uv(1k)/</u>
FUT.	<u>/uros</u> (urox)/	<u>/uxos</u> (uxos)/	<u>/uvos</u> (uvox)/	/uro(k)/	/uxo(k)/	/uvo(k)/
	PERFECT			PROGRESSIVE		
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
ST	<u>/urad</u>	/uxad	/uvad	<u>/ural</u>	/uxal	/uval
PAST	<u>(uraz)/</u> 3	<u>(uxa3)/</u>	<u>(uva3)/</u>	<u>(uran)/⁵</u>	<u>(uxan)/</u>	<u>(uvan)/</u>
IS.	<u>/ured</u>	/uxed	<u>/uvɛd</u>	/urel	<u>/uxɛl</u>	<u>/uvɛl</u>
PRES.	<u>(urez)/</u>	<u>(uxɛʒ)/</u>	<u>(uvɛʒ)/</u>	<u>(uren)/</u>	<u>(uxɛn)/</u>	<u>(uvɛn)/</u>
FUT.	<u>/urod</u>	/uxog	/uvod	<u>/urol</u>	/uxol	/uvol

4.8.2.1 The Verb 'To Be' - /u/

¹ Instead of plural perfective conjugations ending in /s1k/, they end in /x/

 $^{2}/\epsilon$ / drops out of habitual present conjugations in all forms

³/d/ becomes /g/ in 2nd person singular perfect future conjugation

 4 Instead of plural perfect conjugations ending in /d1k/, they end in /ʒ/

 5 Instead of plural progressive conjugations ending in /l1k/, they end in /n/

]	PERFECTIVE			HABITUAL		
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/	
PAST	<u>/ɪrsɑ(k)/1</u>	/1rxas(1k)/	/ırvas(ık)/	<u>/1rja(k)/²</u>	<u>/1xa(k)/³</u>	<u>/ɪvɑ(k)/</u>	
PRES.	<u>/1rsɛ(k)/</u>	/irxɛs(ık)/	/irvɛs(ık)/	<u>/ɪɾjɛ(k)/</u>	<u>/ιxε(k)/</u>	<u>/ινε(k)/</u>	
FUT.	<u>/1rso(k)/</u>	/1rxos(1k)/	/irvos(ik)/	<u>/ɪɾjo(k)/</u>	<u>/ɪxo(k)/</u>	<u>/ɪvo(k)/</u>	
		PERFECT		Р	PROGRESSIV	E	
	/ ri(k) /	/xa(k)/	/vo(k)/	/ ri(k) /	/xa(k)/	/vo(k)/	
PAST	<u>/1rda(k)/</u>	/1rxad(1k)/	/1rvad(1k)/	<u>/ɪɾlɑ(k)/</u>	/1rxal(1k)/	/Irval(Ik)/	
PRES.	<u>/ɪrdɛ(k)/</u>	/1rxɛd(1k)/	/1rvɛd(1k)/	<u>/ɪɾlɛ(k)/</u>	/Irxɛl(Ik)/	/Irvɛl(1k)/	
FUT.	<u>/1rdo(k)/</u>	/ırxod(ık)/	/irvod(ik)/	<u>/ɪɾlo(k)/</u>	/irxol(ik)/	/irvol(ik)/	

4.8.2.2 The Verb 'To Have' - /1r/

¹In all first person conjugations, the person morpheme elides and the aspect morpheme metathesizes with the vowel (to take the original place of the person morpheme)

²In first-person habitual conjugations, the person morpheme becomes /j/

³In all other habitual conjugations, the /c/ at the end of the verb root elides

]	PERFECTIVE	E		HABITUAL	
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
PAST	<u>/wɛras</u> (wɛrax)/	/ <u>wɛxas</u> (wɛxax)/	<u>/wɛvas</u> <u>(wɛvax)/</u>	/wera(k)/	/wɛxɑ(k)/	/wɛvɑ(k)/
PRES.	/weres (werex)/	<u>/wexes</u> (wexex)/	<u>/weves</u> (wevex)/	/wɛrɛ(k)/	/wεxε(k)/	/wɛvɛ(k)/
FUT.	/weros (werox)/	<u>/wɛxos</u> (wɛxox)/	<u>/wevos</u> (wevox)/	/wero(k)/	/wɛxo(k)/	/wɛvo(k)/
		PERFECT		P	ROGRESSIV	E
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
PAST	/ ri(k) / /wɛrad (wɛraʒ)/	/ xa(k) / / <u>wɛxad</u> (wɛxaʒ)/	/ vo(k) / <u>/wεvad</u> <u>(wεva3)/</u>	/ ri(k) / / <u>wɛral</u> (wɛran)/ ³	/ xa(k) / <u>/wɛxal</u> <u>(wɛxan)/</u>	/ vo(k) / <u>/wεval</u> <u>(wεvan)</u> /
PRES. PAST	/werad	/wɛxad	/wɛvad	/weral	/wɛxal	/wɛval

4.8.2.3 The Verb 'To Go' - /wε/

 1 Instead of plural perfective conjugations ending in /s1k/, they end in /x/

 2 Instead of plural perfect conjugations ending in /d1k/, they end in /3/

 3 Instead of plural progressive conjugations ending in /l1k/, they end in /n/

]	PERFECTIVE			HABITUAL	
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
PAST	/ <u>qairas</u> (qairax)/	/qaixas (qaixax)/	/qaīvas (qaīvax)/	/qaira(k)/	/qaīxa(k)/	/qaīva(k)/
PRES.	/ <u>qaires</u> (qairex)/	/ <u>qaixes</u> (qaixex)/	/ <u>qaīves</u> (qaīvex)/	/qaire(k)/	/qaīxɛ(k)/	/qarvɛ(k)/
FUT.	/ <u>qaîros</u> (qaîrox)/	/ <u>qaîxos</u> (qaîxox)/	/ <u>qaīvos</u> (qaīvox)/	/qairo(k)/	/qaīxo(k)/	/qarvo(k)/
		PERFECT		Р	ROGRESSIV	E
_	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
PAST	/qairad (qairaz)/	/qaixad (qaixa3)/	/ <u>qaīvad</u> (qaīvaz)/	<u>/qairal</u> (qairan)/ ³	/ <u>qaixal</u> (qaixan)/	/ <u>qaīval</u> (qaīvan)/
PRES.	/ <u>qaired</u> (qaire <u>3)/</u>	<u>/qaixed</u> (qaixe3)/	<u>/qaīved</u> (qaīve <u>3)/</u>	<u>(qaīrel</u> (qaīren)/	/ <u>qaīxel</u> (qaīxen)/	<u>/qaīvel</u> (qaīven)/
FUT.	/ <u>qairod</u> (qairo <u>3)/</u>	/qaixod (qaixo3)/	/qaīvod (qaīvo3)/	/ <u>qaīrol</u> (qaīron)/	/ <u>qaixol</u> (qaixon)/	/ <u>qaīvol</u> (qaīvon)/

4.8.2.4 The Verb 'To Do' - /qai/

¹ Instead of plural perfective conjugations ending in /s1k/, they end in /x/

 2 Instead of plural perfect conjugations ending in /d1k/, they end in /3/

 3 Instead of plural progressive conjugations ending in /l1k/, they end in /n/

]	PERFECTIVE			HABITUAL	
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
PAST	<u>/haras</u> (harax)/ ¹	<u>/axas</u> (axax)/	<u>/havas</u> (havax)/	/hara(k)/	<u>/axa(k)/</u>	/hava(k)/
PRES.	<u>/hares</u> (harex)/	<u>/axɛs</u> (axɛx)/	/ <u>haves</u> (havex)/	/hare(k)/	<u>/αχε(k)/</u>	/havɛ(k)/
FUT.	/haros (harox)/	<u>/axos</u> (axox)/	<u>/havos</u> (havox)/	/haro(k)/	<u>/axo(k)/</u>	/havo(k)/
		PERFECT		Р	ROGRESSIV	E
	/ri(k)/	/xa(k)/	/vo(k)/	/ri(k)/	/xa(k)/	/vo(k)/
PAST	<u>/harad</u> (hara <u>z)</u> / ³	<u>/axad</u> (axa3)/	<u>/havad</u> (hava <u>3)/</u>	<u>/haral</u> (haran)/ ⁴	<u>/axal</u> (axan)/	/haval (havan)/
PRES.	<u>/hared</u> (harez)/	<u>/αχεd</u> (<u>αχε3)/</u>	<u>/haved</u> <u>(havez)/</u>	<u>/harel</u> (haren)/	<u>/axɛl</u> (axɛn)/	<u>/havɛl</u> (havɛn)/
FUT.	<u>/harod</u> (haro <u>3)/</u>	<u>/axod</u> (axo <u>3)/</u>	<u>/havod</u> (havo <u>3)/</u>	/harol (haron)/	<u>/axol</u> (axon)/	/ <u>havol</u> (havon)/

4.8.2.5	The V	/erh	'To	he A	hle'	- /ha/
7.0.2.0	Inc ,	CIU	10	v c	un -	- / IUU/

¹ Instead of plural perfective conjugations ending in /s1k/, they end in /x/

² /h/ in the verb root elides in all second-person conjugations

³ Instead of plural perfect conjugations ending in /d1k/, they end in /3/

 4 Instead of plural progressive conjugations ending in /l1k/, they end in /n/

5 SYNTAX

5.1 **Typology**

Khahir is a primarily head-initial language. The head of a phrase is the word that determines the syntactic category of that phrase, and a phrase is a group of words that function together as grammatical unit. For example, a noun is the head of a noun phrase. Phrases must minimally consist of a head but may also be comprised of adjuncts or complements which provide additional information about the phrase head. Adjuncts add optional information that may be removed from a phrase without compromising the general meaning of a phrase. Complements, however, add necessary information that complete the meaning of a given phrase. In Khahir, the head of a phrase almost always comes before its complements or adjuncts.

Khahir is a head-marking language such that only the heads of a phrase are inflected. Adjuncts and complements are not inflected within the overarching phrase such that they agree with the head.

Due to its high degree of morphological marking, there is not a fixed word order in Khahir such that the subject, object, and verb of a sentence do not have a fixed position. The word order can be changed according to the speaker's communicative intentions and what they wish to emphasize. However, there is structure within syntactic phrases as demonstrated below.

5.2 NOUN PHRASES

A noun phrase must minimally consist of a noun as its head. Noun phrases may take one or more adjective phrases as adjuncts. These adjuncts always come after the noun. Noun phrases can be either the subject or object of a sentence, and the head is declined accordingly.

- (13) /kur-ık-3ɛ-t/ dog-PL-ACC-DEF
 'the dogs (as the object of a verb)'
- (14) /kur kal/ dog.SG.NOM.INDF small/ 'a small dog'
- (15) /kur-mε-t kal/ dog.SG-GEN-DEF small 'the small dog's'
- (16) /kur-sɛ-t kal uʒ/ dog.SG.DAT-INDEF small quick 'to the small, quick dog's'

Additionally, noun phrases may take a complement which follows the head. This complement is usually another noun phrase. For example, the genitive construction is clear instance of a noun phrase taking another noun phrase as its complement.

(17)	/evya	kur-mɛ-t/
	name.SG.NOM.INDEF	dog.SG-GEN-DEF
	'the dog's name'	-

In this noun phrase, /ɛvɣa/ acts as the head of the phrase, and its complement /kurmɛt/ proceeds it. Both of these nouns decline even though /ɛvɣa/ is the head of the phrase. This is because /kurmɛt/ is considered the head of another noun phrase located within the noun phrase in which /ɛvɣa/ is the head. Therefore, /kurmɛt/ may also take its own adjuncts or complements.

(18)	/evya	kur-mε-t	kal/
	name.SG.NOM.INDEF	dog.SG-GEN-DEF	small
	'the small dog's name'		

A noun phrase may take an adjunct and complement simultaneously. Individually, complements or adjuncts always proceed their heads. However, in order to avoid syntactic ambiguity, when both a complement and one or more adjuncts are modifying the head, the adjunct precedes the head while the complement remains after the head.

If both adjuncts and complements followed the head of a phrase, then the phrase /ɛvya kurmɛt kal/ could either mean 'the small dog's name' or 'the dog's small name' because due to lack of inflection on adjectives, it is not clear whether /kal/ is modifying /ɛvya/ or /kurmɛt/. Therefore, the placement of an adjunct before a head with a complement demonstrates that the adjunct is modifying the head rather than the complement.

(19)	/kal	ενγα	kur-mɛ-t/
	small	name.SG.NOM.INDEF	dog.SG-GEN-DEF
	'the do	og's small name'	

5.3 ADJECTIVE PHRASES

An adjective phrase must minimally consist of an adjective at its head. Adjective phrases may take other adjective phrases or adverb phrases as adjuncts. These adjuncts always come after the adjective.

- (20) /kal/ small 'small'
- (21) /kal εα/ small very 'very small'
- (22) /mjok/ brown 'brown'
- (23) /mjok atsε/ brown dark
 'dark brown'

5.3.1 Adjective Order

While multiple adjectives may multiple a single noun, these adjectives must occur in a specific order. Determiners and numerals, while not adjectives, are included in this section since they also occur in a specific order in relation to the noun which they modify. From closest to furthest away from the noun, the adjectives occur in the following order:

- 1. Color 6. Age
 - 7. Quality/opinion
 - 8. Numeral (cannot be followed by a quantifier or demonstrative)
 - 9. Quantifier, demonstrative, possessives

Below is an example using each of these adjective types in their correct order.

(24)/nwenik mjok yan jut hılakus drun ehrov mrod yein i/ brown thin big wool.ADJZ scarf.PL soft new good four my 'my three good, new, soft, woolen, big, thin, brown scarves'

5.4 ADVERB PHRASES

An adverb phrase must minimally consist of an adverb at its head. Adverb phrases may take additional adverb phrases as adjuncts.

(25) /uʒ-im/ quick-ADVZ 'quickly'

2. Shape

4. Material

5. Texture

3. Size

(26) /uʒ-im εα/ quick-ADVZ very 'very quickly'

5.5 VERB PHRASES

A verb phrase must minimally consist of a verb at its head. Verb phrases may optionally take noun phrases or an additional verb phrase as complements and adverbs as adjuncts. Verb phrases are not exclusively head initial since the complement of a verb phrase does not necessarily follow the head of the phrase. Adjuncts, however, must follow the head of a verb phrase.

Below is a verb phrase that consists solely of a head. A verb that does not take a complement is called an intransitive verb.

 (27) /ðol-v-ε/ speak-3-PRS.HAB.SG
 '(someone) speaks'

Adjuncts of intransitive verbs follow directly after the head.

(28) /ðol-v-ε u3-im/
 speak-3-PRS.HAB.SG quick-ADVZ
 '(someone) speaks quickly'

Below is a phrase that consists of a head and a noun phrase complement. A verb that takes a single noun phrase complement is called a transitive verb.

 (29) /ðol-v-ε qahir-3ε/ speak-3-PRS.HAB.SG Khahir-ACC¹
 '(someone) speaks Khahir'

Adjuncts of transitive verbs follow the complement. Since most adverbs end in the adverbializing morpheme /im/, it is clear that this adjunct modifies the head rather than the complement since adverbs cannot modify noun phrases.

 (30) /ðol-v-ε qahir-3ε u3-im/ speak-3-PRS.HAB.SG Khahir-ACC quick-ADVZ
 '(someone) speaks Khahir quickly'

Below is a verb phrase that consists of a head and two noun phrase complements. These two complements must serve different grammatical functions. One must be a direct object (the recipient of an action) in the accusative case, and one must be an indirect object (the beneficiary of an action) in the dative case. Verbs that take two noun phrase complements are called ditransitive verbs.

 (31) /ðol-v-ε qahir-3ε ri-sε/ speak-3-PRS.HAB.SG Khahir-ACC 1.SG-DAT '(someone) speaks Khahir to me'

Due to inflection, the order of these two complements in relationship to each other does not matter, but both must proceed the head. Changing their order does not affect meaning. They must, however, stay together as a unit to act as the object of a phrase. Therefore, the following order is also grammatically correct.

(32)	/ðol-v-ɛ	ri-se	qahir-ze /
	speak-3-PRS.HAB.SG	1.SG-DAT	Khahir-ACC
	'(someone) speaks Khahir	to me'	

Adjuncts of ditransitive verbs follow both complements. Again, it is clear due to morphology that this adjunct modifies the head of the verb phrase rather than the complements of that verb phrase.

(33) /ðol-v-ε qahir-3ε ri-sε u3-im/
 speak-3-PRS.HAB.SG Khahir-ACC 1.SG-DAT quick-ADVZ
 '(someone) speaks Khahir to me quickly'

5.5.1 Verb Transitivity

Transitivity refers to the property of verbs which dictates whether a verb can take objects and if so, how many. Thus far, a simplified version of intransitive, transitive, and ditransitive verbs has been discussed, but there are other forms and intricacies of verb transitivity that occur in Khahir. For example, note that the verb root /ðol/ can function as an intransitive, transitive, or ditransitive

¹ It should be noted that glossing is rarely a complete morphological description, and its main purpose is to provide relevant information rather than a complete analysis. In this case, it is only relevant to know that this word is in the accusative case as this is a discussion of transitive verbs.

verb. However, not all verbs behave this way. Instead, most verbs belong to only one of the three transitivity categories. Nevertheless, some may occupy two categories; such verbs are called ambitransitive verbs, which can be further subdivided into two categories: agentive and patientive. Additionally, some verbs require objects in order to create a complete meaning while others and others do not, depending on their valency as well as their lexical meaning.

5.5.1.1 Unitransitive² Verbs

Verbs that require a specific number of objects (including zero) and only that number of objects (i.e. they cannot change transitivity) comprise one major category of Khahir verb transitivity: unitransitive verbs. This group contains verbs that are exclusively intransitive, transitive, or ditransitive. The majority of Khahir verbs are unitransitive. Below are examples of verbs that belong to a single transitivity category.

		Intransitive Verbs		
Verb /ʒak/	Gloss 'to laugh'	Example(s) /ri ʒakras/ 'I laughed'		
/xjik/	'to walk'	/ri xjikras/ 'I walked'		
		Transitive Verbs		
/qɪn/	'to want'	/ri qınras kurze/ 'I wanted a dog'		
/yɛl/	'to like'	/ri yelras kurzet/ 'I liked the dog'		
	Ditransitive Verbs			
/kas/	'to lend'	/ri kasras nwenze xase/ 'I lent a scarf to you'		
/hret/	'to give'	/ri hretras nwenze xase/ 'I gave a scarf to you'		

5.5.1.2 Ambitransitive Verbs

The other major category of Khahir transitivity is comprised of ambitransitive verbs which can express different types of valency given the same phonological and morphological form of a verb. Compared to unitransitive verbs, there are relatively few of these in Khahir. Ambitransitive verbs may alternate between intransitive and transitive or transitive and ditransitive, but there are a few verbs that may alternate between all three of these states. There are two types of ambitransitive verbs: agentive and patientive.

It is important to distinguish between the terms 'subject' and 'agent,' which thus far have been used fairly interchangeably. The subject of a sentence is the person or thing about which the sentence is made while the agent of a sentence is the person or thing that performs an action. In Khahir, the subject and the agent almost always correspond to the same noun or noun phrase in a sentence except with patientive verbs.

Agentive verbs are so called because the agent of the verb is always the subject, regardless of a change in transitivity. Additionally, these verbs do not require a specific number of objects and may also change the number of objects. Typically, agentive verbs are those which may describe actions with varying degrees of specificity due to an implied patient. For example, the verb root

² This is not an actual linguistics term. I coined this word to act as a counterpart to 'ambitransitive' to refer to a verb that exclusively takes one form of transitivity. Because the prefix 'ambi-' is Latin, I used the Latin prefix meaning 'one' for consistency. This term, however, should not be confused with the existing term 'monotransitive' which refers to a verb that takes a single object.

/ðol/ 'to speak' is an excellent example of an agentive verb; when a person speaks, it is assumed that something must be spoken and to someone (even if it is to no one), but it is not always necessary to express what or to whom. Regardless of what or to whom the agent speaks and whether this information is explicit or not, the agent remains the same. Most agentive verbs are high frequency verbs.

There are eleven (11) agentive verbs that may switch between intransitivity and transitivity. There are three (3) agentive verbs that may switch between transitivity and ditransitivity. Only three (3) verbs may switch between all three transitivity states. The following table lists agentive verb roots and example usages.

		Intransitive/Transitive Verbs
/xod/	'to eat'	/ri xodras ait/ 'I already ate'; /ri xodras kazunıkze/ 'I ate vegetables'
/kjeī/	'to help'	/xa kjeixe rað/ 'You help often'; /xa kjeixas rize/ 'You helped me'
/ɛx/	'to know'	/xweiv i ɛxvad/ 'My mother had known'; / xweiv i ɛxvɛ heilʒɛt aiðov / 'My mother knows the path well'
/eim/	'to see'	/ri eimre aiðov/ 'I see well'; /ri eimrel kurzet/ 'I see the dog'
/jɛk/	'to sing'	/ri jekre rað/ 'I sing often'; /ri jekre hekainikze / 'I sing lullabies'
/yral/	'to cook'	/ri yralre rað / 'I cook often'; /ri yralras lixmerzet/ 'I cooked the meat'
/varak/	'to carve, to engrave'	/ri varakre rað/ 'I carve often'; /ri varakras xjenze/ 'I carved a bone'
/karad/	'to herd'	/kɛvad i karadvɛ/ 'My father herds'; /kɛvad i karadvɛ miʒakʒɛ/ 'My father herds sheep'
/130/	'to weave'	/varʒa i oɛɾvɛ/ 'My brother weaves'; /varʒa i oɛɾvɛ nwɛnɪkʒɛ/ 'My brother weaves scarves'
/oqoð/	'to whittle, to (flint) knap'	/maījin i oqoðvɛ/ 'My sister whittles'; /maījin i oqoðvɑs xjɛnʒɛ/ 'My sister whittled a bone'
/hoʒ/	'to drink'	/ri hozre rað/ 'I drink often'; /ri hozrel ukjaze/ 'I am drinking water'
		Transitive/Ditransitive Verbs
/dja/	'to send'	/ri djaras aqtize/ 'I sent a message'; /ri djaras aqtize xase/ 'I sent a message to you'
/xril/	'to ask'	/ri xrilras qoyan/ 'I asked a question'; / ri xrilras qoyan xas ϵ / 'I asked you a question'
/vrud/	'to tell'	/ri vrudras morze/ 'I told a story'; /ri vrudras morze xase/ 'I told a story to you'
		Intransitive/Transitive/Ditransitive Verbs
/ðol/	'to speak'	/ri ðolras/ 'I spoke'; /ri ðolras qahir3ɛ/ 'I spoke (in) Khahir'; /ri ðolras qahir3ɛ xasɛ/ 'I spoke (in) Khahir to you'
/xat/	'to write'	/ri xatras 'I wrote'; /ri xatras qahir3ɛ/ 'I wrote (in) Khahir'; /ri xatras qahir3ɛ xasɛ/ 'I wrote (in) Khahir to you'
/ɛn/	'to read'	/ri ɛnrɑs/ 'I read'; /ri ɛnrɑs aqtiʒɛt/ 'I read the message'; /ri ɛnrɑs aqtiʒɛt xɑsɛ/ 'I read the message to you'

Patientive verbs (also known as labile or ergative verbs) instead may change the number of objects but require a specific number of objects given the transitivity form to which they change. Unlike agentive verbs, the patient of a verb becomes the object or subject of the sentence depending on the transitivity of the verb. When the verb is transitive, the patient is the object of the sentence, and when the verb is intransitive, the patient in the subject of the sentence. Typically, patientive verbs are those referring to a change in state which may either occur spontaneously or brought about by an agent.

There are only four (4) patientive verbs in Khahir. Below are example using patientive verbs transitively and intransitively.

		Patientive Verbs
/ ki3 /	'to grow'	/ri kizras kazunıkze/ 'I grew vegetables'; /kazunık kizvasık/ 'vegetables grew'
/30l/	'to move'	/karadevet ʒolvas asırʒɛt/ 'The shepherd moved the animal'; /asırɛt ʒolvas / 'The animal moved'
/ɛð/	'to change'	/xweiv i ɛðvas kustukʒɛ a/ 'My mother changed her hair'; /kustuk a ɛðvasık/ 'Her hair changed'`
/iγ/	'to heal'	/sınjadet iyvas jerze i/ 'The medicine healed my arm'; /jer i iyvas/ 'My arm healed'

However, as will be discussed in the next section, it is possible to change the transitivity of verbs through morphological means.

5.5.2 Valency

Like verb transitivity, verb valency is a property that describes whether a verb can take objects as well as how many objects, but unlike verb transitivity, verb valency also considers whether other verbal arguments including the subject of a verb. In Khahir there are two means of changing a verbs' valency: increasing or decreasing. Increasing valency increases the number and types of arguments that a verb may take while decreasing valency decreases the number and types of arguments that a verb may take.

5.5.2.1 Increasing Valency

In Khahir, it is possible to increase the valency of some verbs either morphologically or lexically. It is possible to increase the valency of verbs in Khahir by creating or using a causative verb. Such verbs indicate that a subject either causes someone or something else to do or be something and creative a transitive verb. All causative verbs conjugate regularly.

There two (2) main causative suffixes that can be used to create transitive verbs from intransitive ones depending on the original grammatical category of the verb:

- 1. For verbs that originated as verbs, the suffix /-na/ is added after the verb stem.
- 2. For verbs that originated as adjectives, the suffix $\frac{1}{d_3}an^3$ is added after the verb stem.

³ Note that the derivational suffix to change an adjective into an inchoative verb is /-d3a/, and the derivational suffix to change an inchoative verb into a causative verb is /-n/. /-d3an/ itself is technically not a suffix in Khahir.

Causative forms may also have secondary meanings beyond 'to make someone do X.' Below are examples of verbs and morphologically-created causative forms.

Verb	Causative Verb
/hjuld $\widehat{J}a$ / 'to become dry'	/hjuld3an/ 'to dry (something), to make dry'
$/\gamma$ and $\overline{z}a/$ 'to become thin'	/yand \widehat{J} an/ 'to make thin, to thin, to cut'
$/v\epsilon d\bar{a}/$ 'to become white, (euphemism) to die'	/vɛd͡ʒɑn/ 'to make white, to bleach, (euphemism) to kill'
/xod/ 'to eat'	/xodna/ 'to feed'
/ʒɑk/ 'to laugh'	/ʒɑknɑ/ 'to make someone laugh'
/vus/ 'to understand'	/vusna/ 'to make someone understand'

For other verbs, there are specific lexical forms for causative forms, but these are few in number compared to morphologically-created causative forms. Below are examples of verbs and their causative forms.

Verb	Causative Verb
/koɣ/ 'to burn, to be on fire'	/halıl/ 'to burn (something), to light on fire'
/dīzaðir/ 'to open'	/inri3/ 'to open (something)'
/eiltt/ 'to close'	/uwir/ 'to close (something)

5.5.2.2 Decreasing Valency

In Khahir, it is also possible to decrease the valency of verbs morphologically. By decreasing the valency of transitive verb, transitive verbs may be used intransitively. The most common method of decreasing valency in Khahir is removing the agent of the verb and allowing the patient of the verb to act as the subject instead. This construction is also known as the passive voice, because, rather than an agent actively performing an action upon the patient, the patient passively receives the action without explicit mention of an agent. By default, all Khahir verbs are in active voice and must be morphologically marked to indicate passive voice. While in some languages like English, sentences with passive constructions may optionally have an agent expressed by a prepositional phrase, passive Khahir sentences never include an agent.

To create a passive verb form, the suffix /-i/ is added to the end of a verb stem. This suffix can be applied after other derivational suffixes, and any transitive verb can be made passive. Below are examples of verbs and their passive forms. All passive verbs are conjugated regularly.

Verb	Passive Verb
/hjuld3an/ 'to dry (something), to make dry'	/hjuld͡ʒɑni/ 'to be dried'
/xat/ 'to write'	/xati/ 'to be written'
/halıl/ 'to burn (something), to light on fire'	/halıli/ 'to be burned, to be lit on fire'
/xodna/ 'to feed'	/xodnai/ 'to be fed'
/oer/ 'to weave'	/oɛri/ 'to be woven'
/xril/ 'to ask'	/xrili/ 'to be asked'

5.5.3 Other Complements

As previously mentioned, verb phrases may take other verb phrases as complements. A verb phrase complement must follow directly after its head. Additionally, in order for two verbs to occur consecutively, only the first verb may be conjugated; the other verb has to remain in the nominal infinitive form. Recall that nominal infinitive forms must end in the suffix /-sa/.

(34) /kwar-v-ε ðol-sa/ learn-3-PRS.HAB.SG speak-INF '(someone) learns to speak'

Because the head of the phrase and the complement of the phrase are both verb phrases, there is potential for syntactic ambiguity when adding an adjunct (determining whether the adjunct modifies the head of the overarching phrase or the complement of the overarching phrase). Therefore, if the adjunct modifies the head of the overarching phrase, it precedes the head, and if the adjunct modifies the complement, it follows the complement.

(35)	/uʒ-im quick-ADVZ '(someone) qu	kwar-v-ε learn-3-PRS. iickly learns to		ðol-sa/ speak-INF
(36)	/kwaſ-v-ε learn-3-PRS.H '(someone) lea	IAB.SG arns to speak c	ðol-sa speak-INF juickly'	u3-im/ quick-ADVZ

5.6 WORD ORDER AND MEANING

Due to the explicit inflection of subjects, objects, and verbs in Khahir, changes in word order may be used to create different interpretations depending on context. There are six possible word orders in Khahir: SVO, SOV, VSO, VOS, OSV, and OVS. Below are the general interpretations for these possible word orders using the transitive verb root /ðol/ meaning 'speak', the subject /sılaı/ the name 'Sîlai', and the object /qahirʒɛ/ meaning 'the Khahir language'. Typically, that which is being emphasized is placed before the verb in an utterance, and if the verb comes first in the utterance, it is what is being emphasized. All of the following word orders can be used with both active and passive verb forms.

5.6.1 Subject-Object Word Orders

When the subject precedes the object, the utterance is generally used to specify or clarify information.

Subject-Verb-Object

This is the default word order in Khahir and is used to express a neutral statement or fact without any emphasis.

```
/sılaı dolve qahirze/
```

'Sîlai speaks Khahir'

Subject-Object-Verb

This word order is used to place emphasis on the object of an utterance in order to distinguish it from other potential objects.

/sılaı qahirze dolve/

'Sîlai speaks Khahir (as opposed to another language)'

Verb-Subject-Object

This word order is used to place emphasis on the verb of an utterance in order to distinguish it from other potential actions that may be performed by the subject on the object.

/dolve silai qahirze/

'Sîlai speaks Khahir (as opposed to reading or writing it)'

5.6.2 Object-Subject Word Orders

When the object precedes the subject, the utterance is used to present new information.

Verb-Object-Subject

This word order is used to place emphasis on the action when the subject and object of the utterance are already established, but it is unknown or unclear from context what action is being performed.

/dolve qahirze sılai/

'Speaking (as opposed to reading, writing, etc.) Khahir is what Sîlai does'

This word order implies that it is already known that Sîlai does something involving the Khahir language, but it is not previously known what they do with the language.

Object-Subject-Verb

This word order is used to place emphasis on the subject when the action and object of the utterance are already established, but it is unknown or unclear from context who is performing said action.

/qahirze sılaı dolve/

'It is Sîlai who speaks Khahir (as opposed to someone else)'

This word order implies that it is already known that someone speaks Khahir, but who speaks Khahir is not previously known.

Object-Verb-Subject

This word order is used to place emphasis on the object when the action and the subject performing that action within the utterance are already established, but it is unknown or unclear from context upon what the action is being performed.

/qahirze dolve sılaı/

'It is Khahir that Sîlai speaks (as opposed to another language)'

This word order implies that it is already known that Sîlai speaks a language, but which language specifically is not previously known.

5.7 NEGATION

Negation is denoted using the suffix /-ja/, which is applied after any and all other derivational and inflectional suffixes. The majority of content words can be negated. The same suffix is applied regardless of the word's grammatical category (noun, verb, adjective, etc.). Below are examples of single words being negated.

- (37) /sɪlaī-ja/ Sîlai-NEG 'not Sîlai'
- (38) /ðol-v-ε-ja/ speak-3-PRS.HAB.SG-NEG
 '(someone) does not speak)
- (39) /i-ja/ my-NEG 'not my'
- (40) /εa-ja/ very-NEG 'not very'

5.7.1 Phrase Negation

In Khahir, the negation suffix is placed on the head of whichever phrase is being negated.

5.7.1.1 Noun Phrases

In the following example, the entire noun phrase is negated but only the head is marked morphologically for negation.

 (41) /kur-ja mjok atsε/ dog.NOM.SG.INDF-NEG brown dark 'not a dark brown dog'

In the following example, the noun phrase as a whole is not negated, but the adjunct within the noun phrase is negated and therefore, the head of the adjective phrase acting as an adjunct is negated. That which is being negated receives more emphasis.

 (42) /kur mjok-ja atsε/ dog.NOM.SG.INDF brown-NEG dark 'not a dark brown dog'

In the following example, the adjunct of the adjective phrase is negated.

 (43) /kur mjok atsε-ja/ dog.NOM.SG.INDF brown dark-NEG 'not a *dark* brown dog'

5.7.1.2 Adjective Phrases

In the following example, the head of the adjective phrase is negated to signify that the phrase is negated.

(44) /kal-ja εα/ small-NEG very 'not very small'

However, negating the head of the phrase that forms the adjunct instead of the head of the main phrase creates a slightly different meaning.

 (45) /kal εα-ja/ small very-NEG 'not very small'

5.7.1.3 Adverb Phrases

In the following example, the adverb phrase consists of a single word (its head) which is negated.

(46) /uʒ-im-ja/ quick-ADVZ-NEG 'not quickly'

In the following example, an unnegated adjunct is added.

 (47) /uʒ-im-ja εα/ quick-ADVZ-NEG very 'not very quickly'

In the following example, the head of the adjunct phrase is negated instead.

 (48) /uȝ-im εa-ja/ quick-ADVZ very-NEG
 'not very quickly'

5.7.1.4 Verb Phrases

The following example demonstrates a verb phrase that is entirely negated using an intransitive verb without any adjuncts. Recall that intransitive verbs do not take objects.

(49) /sɪlaı 3ak-v-a-s-ja/ Sîlai.NOM laugh-3-PST-PFV.SG-NEG 'Sîlai did not laugh'

Verb phrases can take adverbs as adjuncts. Therefore, a negated verb phrase with an intransitive verb and an adjunct would be as follows:

(50) /sılaı zak-v-a-s-ja sjor-im/ Sîlai.NOM laugh-3-PST-PFV.SG-NEG loud-ADVZ 'Sîlai did not laugh loudly'

In the following example, the adjunct instead is negated.

(51) /sɪlaī 3ak-v-a-s Sîlai.NOM laugh-3-PST-PFV.SG 'Sîlai did not laugh loudly'

sjor-im/ loud-ADVZ-NEG

The following example demonstrates a negated verb phrase with a transitive verb and its required object.

(52) /sılaı dol-v-ε-ja qahir-3ε/
 Sîlai.NOM speak-3-PRS.HAB.SG-NEG Khahir-ACC
 'Sîlai does not speak Khahir'

In the following example, only the transitive verb is negated.

(53)	/sılaı	ðol-v-ε	qahir-ze-ja/
	Sîlai.NOM	speak-3-PRS.HAB.SG	Khahir-ACC-NEG
	'Sîlai does ne	ot speak <i>Khahir</i> '	

The following example demonstrates a negated verb phrase with a ditransitive verb and its two required objects.

(54) /sɪlai ðol-v-ε-ja qahir-ʒε ri-sε/
 Sîlai.NOM speak-3-PRS.HAB.SG-NEG Khahir-ACC 1.SG-DAT
 'Sîlai does not speak Khahir to me'

The following two examples demonstrate a verb phrase in which the ditransitive verb and its direct object is negated. Recall that the order of these two objects does not matter.

(55)	/sılaı	ðol-v-ε	qahir-ze-ja	ri-se/
	Sîlai.NOM	speak-3-PRS.HAB.SG	Khahir-ACC-NEG	1.SG-DAT
	'Sîlai does no	ot speak <i>Khahir</i> to me'		

The following two examples demonstrate a verb phrase in which the ditransitive verb and its indirect object is negated. Recall that the order of these two objects does not matter.

(56)	/sılaı	ðol-v-ε	qahir-ze	ri-se-ja /
	Sîlai.NOM	speak-3-PRS.HAB.SG	Khahir-ACC	1.SG-DAT-NEG /
	'Sîlai does no	ot speak Khahir to me'		

5.7.2 Negation within Sentences

Recall that when a verb comes first in a sentence, the verb is the information that is being emphasized. However, that which is being negated also receives emphasis. In the examples for the following sections, only required constituents will be used for the sake of brevity, that is, adjuncts will not be used.

5.7.2.1 Intransitive Verbs in Sentences

Since intransitive verbs do not take objects, a sentence using a transitive verb must minimally consist of a subject and a verb. The subject-verb order of the following verb-subject sentence is already demonstrated in (48).

(57) /ʒak-v-a-s-ja sılaī/ laugh-3-PST-PFV.SG-NEG Sîlai.NOM 'Sîlai did not laugh'

Subjects of sentences may also be negated.

(58) /sılaī-ja ʒak-v-a-s/ Sîlai.NOM-NEG laugh-3-PST-PFV.SG
'It was not Sîlai who laughed, *Sîlai* did not laugh'
(59) /ʒak-v-a-s sılaī-ja/ laugh-3-PST-PFV.SG Sîlai.NOM-NEG
'Laughing was not done by Sîlai'

5.7.2.2 Transitive Verbs in Sentences

For the sake of brevity in the rest of this section, the following conventions will be used to indicate which parts of a sentence are negated without providing a morpheme-by-morpheme gloss:

- a. The subscript N indicates that the subject, verb, or object is negated.
- b. The subscript D indicates that the object is a direct object
- c. The subscript I indicates that the object is an indirect object
- d. Object subscripts precede the negation subscript

Order	Sentence	Interpretation
SV _N O _D	/sılaı ðolveja qahirze/	'Sîlai does not speak Khahir' (neutral statement)
SVO _{DN}	/sılaı dolve qahirzeja/	'Sîlai does not speak Khahir'
S _N VO _D	/sılaıja ðolve qahirze/	'Sîlai does not speak Khahir'
SO_DV_N	/sılaı qahirze ðolveja/	'Sîlai does not speak Khahir' (softened statement) ⁴
SO _{DN} V	/sılaı qahirzeja dolve/	'Sîlai does not speak Khahir'
S _N O _D V	/sılaıja qahirze ðolve/	'Sîlai does not speak Khahir'
V _N SO _D	/ðolveja sılar qahirze/	'Sîlai does not speak Khahir' (emphasis on action)
VSO _{DN}	/ðolve sılar qahirzeja/	'Sîlai does not speak Khahir'
VS _N O _D	/ðolve sılaıja qahirze/	'Sîlai does not speak Khahir'
V _N O _D S	/ðolveja qahirze sılaı/	'Not speaking Khahir is what Sîlai does' (neutral statement)
VO _{DN} S	/ðolve qahirzeja sılaı/	'Not speaking Khahir is what Sîlai does'
VO _D S _N	/ðolve qahirze sılaıja/	'Not speaking Khahir is what Sîlai does'
$O_D V_N S$	/qahirze ðolveja sılai/	'It is Sîlai who does not speak Khahir' (neutral statement)
O _{DN} VS	/qahirzeja ðolve sılai/	'It is Sîlai who does not speak Khahir'
O _D VS _N	/qahirze ðolve sılaīja/	'It is Sîlai who does not speak Khahir'
O _D SV _N	/qahirze sılaı ðolveja/	'It is Khahir that Sîlai does not speak' (neutral statement)
O _{DN} SV	/qahirzeja sılar dolve/	'It is Khahir that Sîlai does not speak'
$O_D S_N V$	/qahirze sılaıja ðolve/	'It is Khahir that <i>Sîlai</i> does not speak'

⁴ This construction is used to present a fact that perhaps is not relevant or has no bearing on the current conversation, due to the emphasis of negation on the verb and placement of the object before the verb "canceling each other out". Another way of interpreting this construction is 'Sîlai happens to not speak Khahir.'

Note that for word orders in which the subject precedes the object, negating the subject or object result in the same meaning, regardless of their respective word order. This pattern would also apply to the negation of any adjuncts.

5.7.2.3 Ditransitive Verbs in Sentences

Recall that changing the order of direct and indirect objects does not result in a difference of meaning. Because of this, permutations that differ based on object order will not be listed. However, negating one object instead of the other will result in a change of meaning, as seen below.

Order	Sentence	Interpretation
$SV_NO_DO_I$	/sılaı dolveja qahirze rise/	'Sîlai does not speak Khahir to me' (neutral statement)
SVO _{DN} O _I	/sılaı dolve qahirzeja rise/	'Sîlai does not speak Khahir to me'
SVO _D O _{IN}	/sılaı dolve qahirze riseja/	'Sîlai does not speak Khahir to me'
S _N VO _D O _I	/sılaıja ðolve qahirze rise/	<i>Sîlai</i> does not speak Khahir to me'
$SO_DO_IV_N$	/sılaı qahirze rise ðolveja/	'Sîlai does not speak Khahir to me' (softened statement)
SO _{DN} O _I V	/sılaı qahirzeja rise ðolve/	'Sîlai does not speak Khahir to me'
SO _D O _{IN} V	/sılaı qahirze riseja ðolve/	'Sîlai does not speak Khahir to me'
$S_N O_D O_I V$	/sılaıja qahirze rise ðolve/	<i>Sîlai</i> does not speak Khahir to me'
$V_N SO_D O_I$	/ðolveja sılaı qahirze rise/	'Sîlai does not speak Khahir to me' (emphasis on action)
VSO _{DN} O _I	/ðolve sılaı qahirzeja rise/	'Sîlai does not speak Khahir to me'
VSO _D O _{IN}	/ðolve sılaı qahirze riseja/	'Sîlai does not speak Khahir to me'
VS _N O _D O _I	/ðolve sılaıja qahirze rise/	<i>Sîlai</i> does not speak Khahir to me'
$V_N O_D O_I S$	/ðolveja qahirze rise sılaī/	'Not speaking Khahir to me is what Sîlai does' (neutral)
VO _{DN} O _I S	/ðolve qahirzeja rise sılaı/	'Not speaking Khahir to me is what Sîlai does'
VO _D O _{IN} S	/ðolve qahirze riseja sılaı/	'Not speaking Khahir to me is what Sîlai does'
VO _D O _I S _N	/ðolve qahirze rise sılaıja/	'Not speaking Khahir to me is what Sîlai does'
$O_D O_I V_N S$	/qahirze rise ðolveja sılaī/	'It is Sîlai who does not speak Khahir to me' (neutral)
O _{DN} O _I VS	/qahirzeja rise ðolve sılaī/	'It is Sîlai who does not speak Khahir to me'
O _D O _{IN} VS	/qahirze riseja ðolve sılaī/	'It is Sîlai who does not speak Khahir to me'
$O_DO_IVS_N$	/qahirze rise ðolve sılaīja/	'It is Sîlai who does not speak Khahir to me'
$O_DO_ISV_N$	/qahirze rise sılaı ðolveja/	'It is Khahir that Sîlai does not speak to me' (neutral)
O _{DN} O _I SV	/qahirzeja rise sılar dolve/	'It is <i>Khahir</i> that Sîlai does not speak to me'
O _D O _{IN} SV	/qahirze riseja sılaı dolve/	'It is Khahir that Sîlai does not speak to me'
$O_D O_I S_N V$	/qahirze rise sılaıja ðolve/	'It is Khahir that <i>Sîlai</i> does not speak to me'

Again, note that for word orders in which the subject precedes the object, negating the subject or either object result in the same meaning, regardless of their respective word order. This pattern would also apply to the negation of any adjuncts.

5.8 QUESTIONS

The word order for asking questions is less flexible than that of statements. An interrogative word or particle must always begin a question and identifies whether information about the subject, verb, or object is requested. The basic word order of questions is verb-subject-object, but that which is being asked about moves to the beginning of the question without disturbing the order of the other constituents. For example, if the question asks about the object of an action, the word order becomes OVS, and if the question asks about the subject of an action, then the word order appears as SVO.

Below are examples using each of the possible interrogative words and the interrogative particle along with their English equivalents.

 $/\epsilon v/$ is used to ask who the subject of a certain action is.

(60)	/ev	xodvas	kazunıkze	i/
	who.NOM	eat.3.PST.PFV.SG	vegetable.PL.ACC	my
	'Who ate my	vegetables?'		

 $/\epsilon v_{3}\epsilon/\epsilon v_{3}\epsilon/$

(61) /ενζε eimxas xa/
 who.ACC see.2.PST.PFV.SG 2.SG
 'Whom did you see?'

/ɛvsɛ/ is used to ask who the indirect object of a certain action is.

(62)	/evse	ðolxas	xa/
. ,	who.DAT	speak.2.PST.PFV.SG	2.SG
	'To whom d	id you speak?'	

/ɛvmɛ/ is used to ask about the possession or association of a noun with someone.

(63) /ενmε tεʒεm ðolvεl sjorim/
 who.GEN friend.NOM.SG speak.2.PRS.PROG.SG loud.ADVZ
 'Whose friend is speaking loudly?'

 $\langle \epsilon vw\epsilon \rangle$ is used to ask about a person in a postpositional relationship with a verb or noun.

(64) /ενwε=að xjikxas xa aʒγiwεt=or/ who.POST=with walk.2.PST.PFV.SG 2.SG river.POST.DEF=to 'With whom did you walk to the river?'

 $/\epsilon r/$ is used to determine the subject of an action when that subject is not a person.

(65)	13\	xodvas	kazunıkze	i /
	what.NOM	eat.3.PST.PFV.SG	vegetable.PL.ACC	my
	'What ate my	vegetables?'		

 $/\epsilon r z \epsilon / is used to ask about the direct object of an action.$

(66)	/erze	xodvas	asırta/
	what.ACC	eat.3.PST.PFV.SG	animal.SG.NOM.DEF

'What did the animal eat?'

 $/\epsilon rs\epsilon/$ is used to ask about the indirect object of an action when that noun is not a person.

(67) /εrsε hretxas xa xjεn3ε/
 what.DAT give.2.PST.PFV.SG 2.SG bone.SG.ACC.INDEF
 'To what did you give a bone?'

/ɛrmɛ/ is used to ask about the possession or association of a noun with something else.

(68) /εrmε kuv hjuld3avε u3im/
 what.GEN fur.NOM dry.3.PRS.HAB.SG quick.ADVZ
 'What's fur dries quickly?

/ɛrwɛ/ is used to ask about a noun in a postpositional relationship with a verb or another noun.

(69) /εrwε=að xatxas xa aqtiʒεt/ what.POST=with write.2.PST.PFV.SG 2.SG message.SG.ACC.DEF 'With what did you write the message?'

 (ϵs) is used to ask about the location of something or someone.

(70) /εs a3hikval var3a a/
 where live.3.PRS.PROG.SG. brother.SG.NOM your
 'Where is your brother living?'

 $/\epsilon sa/$ is used to ask about the someone or something's destination or the destination of a verb of motion.

 (71) /εsa xjikxas xa/ to_where walk.2.PST.PFV.SG 2.SG
 'To where did you walk?'

/ɛwa/ is used to ask about the someone or something's origin or the origin of a verb of motion.

 (72) /εwa xjikxas xa/ from_where walk.2.PST.PFV.SG 2.SG
 'From where did you walk?'

/ɛnd/ is used to ask about the time of occurrence of an action or event.

(73)	/ena	kwarxas	ðolsa	xa	qahirze/
	when	learn.2.PST.PFV.SG	speak.INF	2.SG	Khahir.ACC
	'When	did you learn to speak	Khahir?'		

 $/\epsilon t/$ is used to ask about the reason or motivation for something.

(74) /et yelxe xa kurik3e/ why like.2.PRS.HAB.SG 2.SG dog.PL.ACC 'Why do you like dogs?'

/ɛkɑ/ is used to ask about the means or manner of doing something.

(75) /eka dolve vo/

how speak.3.PRES.HAB.SG 3.SG 'How do they (singular) speak?'

 $/\epsilon da/$ is used to ask about a specific noun from a definite set of options and is often followed by a noun.

 (76) /εda hunʒε yand̄ʒaxas xa/ which yarn.ACC cut.2.PST.PFV.SG. 2.SG
 'Which yarn did you cut?'

/ɛm/ is used to ask about the quantity of something and is often followed by a noun.

 (77) /εm ormudīkʒε xodxad xa/ how_many berry.PL.ACC eat.2.PST.PERF.SG. 2.SG
 'How many berries have you eaten?'

The particle ϵ/ϵ can be added to the beginning of any declarative utterance, regardless of word order, to form a yes-or-no question.

(78)	/ε	sılaı	ðolve	qahirze/
	Q	Sîlai.NOM	speak.3.PRS.HAB.SG	Khahir.ACC
	'Does	Sîlai speak Kh	ahir?'	

5.8.1 Answering Questions

When answering questions in Khahir, the new information, or the answer being provided, typically occurs first in the sentence. For example, when answering the question /ɛrʒɛ xodvɑs asırta/ 'what did the animal eat?', that which the animal ate will occur first in the sentence. A potential answer might be /ormudʒɛ xodvɑs asırta/ 'the animal ate berries' or 'it was berries that the animal ate.'

Because the answer occurs at the beginning of the sentence, it is also very common to use ellipsis when answering questions. An ellipsis is the omission of one or more words form a clause that are understood based on context. In the previous example, it is unnecessary to repeat /xodvas asırta/ because it is known that an animal ate something because this information was included in the question. Therefore, it is permissible to simply say /ormudʒɛ/ instead of /ormudʒɛ xodvas asırta/.

When answering yes-or-no questions, there are different affirmatives and negatives that are used depending on how the sentence is originally formulated. Below are examples of positively and negatively formulate questions, and their potential affirmative or negative responses.

Question	Gloss	Answer	Gloss
/e yelxe kurikze/	'Do you like dogs?'	/tak/	Yes (I like dogs)
/e yelxe kurikze/	'Do you like dogs?'	/jak/	No (I don't like dogs)
/ε γειχεјα κυτικτε/	'You don't like dogs?'	/jan/	No (I do like dogs)
/ε γειχεјα κυτικζε/	'You don't like dogs?'	/tan/	Yes (I don't like dogs)

5.9 COMBINING CLAUSES

A clause is a collection of words that semantically contains a predicand, typically the subject or agent of a verb, and a predicate, which expresses some sort of information about the predicand such as the action that it performs, its state of being, and so forth. There are two (2) main types of clauses in Khahir: independent and dependent. An independent clause may semantically exist on its own, such that it does not rely on any other clauses to convey a complete thought. Conversely, a dependent clause cannot function on its own and must be attached to an independent clause.

5.9.1 Independent Clauses

Two (2) independent clauses of equal semantic importance may be joined with a coordinating conjunction, such as in the following example.

(79) /ri xodrɛl kaʒunıkʒɛ av sılaı xodvɛl
 1.SG eat.1.PRS.PROG.SG vegetable.PL.ACC but Sîlai eat.3.PRS.PROG.SG ormudıkʒɛ /
 berry.PL.ACC
 'I am eating vegetables, but Sîlai is eating berries'

Two (2) independent clauses of unequal semantic importance may be joined by a complementizer. While both of these sentences semantically may exist on their own, the clause that follows the complementizer completes the meaning of the first clause. The most common type of complementizer shares the same morphological form as relative pronouns and adverbs but serve different slightly different syntactic functions.

In Khahir, a complementizer transforms a clause into the subject or object of a sentence while maintaining the syntactic function within the original clause. That is, even if a clause functions as the object within the larger sentence, the constituent parts of the clause do not change case.

(80)	/ri	kwarras	ir	hodov	hjul
	1.SG	learn.1.PST.PFV.SG	COMP	grass.NOM	dry
	koyve		uʒim/		
	burn.3	PRES.HAB.SG.	fast.ADVZ		
	'I learr	ned that dry grass burns	s quickly'		

5.9.2 Dependent Clauses

Dependent clauses are adjoined to independent clauses by a relative pronoun or adverb. The dependent clause follows the relative pronoun or adverb. Dependent clauses typically provide additional information about a noun or verb.

The relative pronoun that connects a dependent clause to an independent clause agrees in case with the constituent that it is modifying. In the following example, the relative pronoun modifies the subject of the sentence, and therefore, the relative pronoun takes its nominative case.

(81)	/xozal	ir	xodve	lıxmerze	jutdzave/
	wolf.SG.NO	Mthat	eat.3.PRES.HAB.SG	meat.ACC	large.VZ.3.PRES.HAB.SG
	'A wolf that	eats mea	at grows large'		

However, in the following example, the relative pronoun modifies the direct object of the sentence and therefore, takes the accusative case.

(82) /ri emrel xoʒalʒet ir
 1.SG see.1.PRES.PROG.SG wolf.SG.ACC.DEF that xodvel lɪxmerʒε/ eat.3.PRES.PROG.SG meat.ACC
 'I see the wolf that is eating meat'

Below is an example in which a verb is modified.

 (83) /ri vusrasja ina xa ðolxas
 1.SG understand.1.PST.PFV.SG.NEG when 2.SG speak.2.PST.PFV.SG u3im/ quick.ADVZ
 'I did not understand when you spoke quickly'

6 SEMANTICS AND PRAGMATICS

The combination of phrases and sentences can be used to create both literal and non-literal meaning. Typically, the meaning of complex expressions like phrases or sentences are created by the meanings of its constituent expressions (determined morphologically) and the rules used to combine them (determined syntactically); this phenomenon is called the principle of compositionality. However, there are many instances in which the meaning of language is generated non-compositionally such as figurative language, sarcasm, and idioms. In these instances, context and speaker intention are highly important in determining meaning of non-literal language. Speaker meaning and non-literal language greatly rely on culture to inform their meaning.

6.1 IDIOMS

An idiom is a phrase or expression that conveys a figurative or non-literal meaning separate that differs from the compositional meaning of the individual words and their order. Idioms often refer to common phenomena or occurrences. Below are examples of common Khahir idioms, their meanings, and their usages.

Idiom Literal translation		English Gloss	Usage	
/ruxað/	'with fire'	'bravely, unafraid'	To describe someone or something that is brave, daring, or intrepid	
/ðol azyitud/	'to speak near the river'	'to fall on deaf ears'	To describe when someone or their words are being ignored	

6.2 **PROVERBS**

A proverb is a short expression used to express a general truth or piece of advice. Proverbs are considered non-compositional language because they do not relate directly to the conversational context in terms of their literal meaning but have implications regarding the conversational context. Below are examples of common Khahir proverbs, their meanings, and their usages.

Proverb	Literal translation	English Gloss	Usage
/aījirta imekxe av xweitta askelxe/	'the snow melts but the mountain remains'	'hardships will pass'	Used to reassure or comfort someone during difficult times
/hılak axeja ımuvaıni/	'wool cannot be unspun'	'set in stone, what is done is done'	To refer to when something is fixed and unchangeable

6.3 EUPHEMISMS

A euphemism is an indirect word or expression used in place of another that is considered more offensive or unpleasant by the society. Euphemisms are often used to discuss taboo topics in a more discrete way. Below are examples of common euphemisms, their meanings, and their usages.

Euphemism Literal translation		English Gloss	Usage
/vedza/	'to become white'	'to die, to pass away'	To avoid directly addressing that someone died
/vedzan/	'to bleach, to whiten'	'to kill'	To avoid directly addressing that someone or something killed someone or something else

6.4 POLITENESS

Politeness is the practice of behaving in a respectful and culturally acceptable way when speaking with other people which is dependent on one's culture. There are several ways to express politeness in Khahir when speaking with another person.

6.4.1 Word Order

In addition to changing the meaning of a sentence, word order can also be used semantically to indicate politeness. When speaking with someone and one wants to show respect, OVS or OSV word orders are used in which the object is in the second-person and the subject is in the first-person. These word orders symbolically suggest that the speaker prioritizes the listener before themselves. This construction only applies to statements and not questions.

6.4.2 Vocatives

It is considered polite to frequently address the person to whom one is speaking in Khahir. Because a separate vocative case does not exist, the nominal case is used to refer to people when speaking. There are several types of vocatives that can be used: given names, relation to speaker, and matronymics. A matronymic is a way of distinguishing an individual based on their mother. In Khahir the matronymic convention is /hir/ or /oʒkɑ/ 'child' and the mother's name in the genitive case such as /hir sɪlaīmɛ/, meaning 'child of Sîlai.'

7 WRITING SYSTEM

7.1 NATIVE KHAHIR SYSTEM

The Khahir script is a right-to-left alphabet comprised of 26 letters. Each letter, or grapheme, represents a single phoneme. This script does not differentiate between upper- and lower-case letters.

Historically, the Khahir language was transcribed in two ways: written with ink and brush or carved into stone. Depending on which medium is used, the Khahir script takes a slightly different form but maintains the same basic shape. The inked variety of the Khahir script utilizes a mixture of curved and straight lines. However, when carved into stone, the Khahir script exclusively uses straight lines.

Below are the letters of the Khahir script and their corresponding phonemes. For the purposes of this paper, all uses of the Khahir script will be written using the inked variety.

IPA	/a/	/aī/	/x/	/d/	/ð/	/ɛ/	/ei/	/γ/	/h/	/i/	/I/	/d3/	/k/
Inked	ζ	ન		с С	न	Т	গ	₹	र	٩	ব	H	ና
Carved	र	হ	ኤ	হ	न	Т	গ	₹	5	व	ব	Т	ፍ
IPA	/q/	/1/	/m/	/n/	/0/	/ſ/	/s/	/t/	/u/	/v/	/w/	/j/	/3/
Inked	5	र	ㅈ	व	ন	₹	স	Þ	L	F	3	₹	7
Carved	2	ৰ	75	ব	τ	₽	ग	F	Ţ	F	र	₽	オ

The horizontal line above each letter connects letters within a word. For example, the word /kur/ 'dog' is comprised of the letters \overline{r} , \overline{r} , and \overline{P} . When combined, a single line connects every letter within the word to form $\overline{P}L\overline{r}$.

There are a few types of punctuation utilized in Khahir. These come at the end of an utterance. Below are their forms and their uses.

Form	Use
1	Marks the end of a sentence
11	Marks the end of a paragraph
-	Marks an exclamation
=	Marks a question
4	Marks a quotation

Here is an example of a full sentence using the Khahir script:

7.2 TRANSLITERATION SYSTEM

Transliteration is the process by which the orthographic representation of phonemes is represented using a non-native orthographic system. The following is a transliteration of Khahir phonemes using English orthography and the Roman alphabet. Graphemes in are notated using angle brackets.

Transliteration	IPA	Khahir Letter	Transliteration	IPA	Khahir Letter
<a>	/a/	て	<kh></kh>	/q/	5
<ai></ai>	/aī/	Ŀ	<l></l>	/1/	ਦ
<c></c>	/x/	ŀe	<m></m>	/m/	エ
<d></d>	/d/	と	<n></n>	/n/	व
<dh></dh>	/ð/	ᅿ	<0>	/0/	ょ
<e></e>	/ɛ/	Т	<r></r>	/ſ/	Ŧ
<ei></ei>	/ei/	괵	<\$>	/s/	স
<g></g>	/γ/	ৰ	<t></t>	/t/	ব
<h></h>	/h/	ک	<u></u>	/u/	L
<i></i>	/i/	ब	<v></v>	/v/	тJ
<î>	/I/	ব	<w></w>	/w/	3
<j></j>	/d3/	H	<y></y>	/j/	₽
<k></k>	/k/	۲	<z></z>	/3/	ヿ

7.2.1 Hyphenation

For the sake of clearly distinguishing between phonemes, hyphens are used in the following circumstances:

- a. Between doubled consonants within a word
- b. Between <a> and <i> or <e> and <i> when not representing the diphthongs $\overline{/ai}$ and $\overline{/ei}$ respectively
- c. Between <d> and <h> or <k> and <h> when not representing the phonemes $/\delta/$ and /q/ respectively

Ex. /ilʒakhwar/ is transliterated as 'ilzak-hwar'

8 LEXICON

Only lexemes are listed. Irregular forms may be indicated. Transliterated forms are listed for the sake of searchability.

a: /a/ *pron*. your (singular) agal: /ayal/ *adj*. green aidhov: /aiðov/ adv. well ait: /ait/ adv. alreadv aivîr: /aījic/ n. snow **ak:** /ak/ *pron*. your (plural) **akhti:** /aqti/ *n*. message **asîr:** ['a.sɪr] *n*. animal, beast, creature askel: /askɛl/ v. to remain atse: /atsɛ/ adj. dark av: /av/ conj. but aza: /aʒa/ num. ten azgi: /aʒyi/ n. river **ca:** /xa/ *pron*. you (singular) **cak:** /xak/ *pron*. you (plural) cat: /xat/ v. to write **cemair:** /xɛmair/ n. the north (lit. left of the sun) cer: /xɛr/ adj. left (direction) cjen: /xjɛn/ n. a bone **cod:** /xod/v. to eat codna: /xodna/ v. to feed **cozal**: /xo3al/n. wolf **cril:** /xril/ v. to ask **cweit:** /xweit/ *n*. mountain **cweiv:** /xweiv/ *n*. mother cyik: /xjik/ v. to walk

dar: /dar/ adj. wet **darja:** $/dard\hat{z}a/v$. to become wet darjan: /dard2an/ v. to wet, to moisten **dhol:** /ðol/ *v*. to speak **dholei:** $(\tilde{\operatorname{dolei}}/n)$. speech draz: /draʒ/ adj. foolish, stupid drun: /drun/ adj. soft dul: /dul/ n. hand **dun:** /dun/ *n*. mushroom dya: /dja/ v. to send ea: /εα/ *adv*. very ec: $\frac{\varepsilon}{\varepsilon}$ / ε /v. to know ecta: /ɛxta/ n. root eda: /ɛdɑ/ intero. which edh: $\langle \varepsilon \delta \rangle v$. to change ehan: /ɛhɑn/ n. goat ehrov: /ehrov/ adj. new **eilît:** $\overline{/eilit/v}$. to close eim: $\hat{e_{im}}$ v. to see eimudh: /eimuð/ adj. pleasant eiyîk: /eijik/ adj. wise eiz: /eiʒ/ adj. hot, warm eizja: [eiʒa] v. to become hot eizjan: [eiʒɑn] v. to heat ek: /ɛk/ conj. and eka: /ɛkɑ/ *intero*. how ekhat: /ɛqɑt/ n. morning

el: /ɛl/ conj. Or elvrom: /ɛlvrom/ v. to wash, to bathe em: /ɛm/ intero. how much, how many en: $\langle \epsilon n \rangle v$. to read ena: /ɛnɑ/ *intero*. when er: /ɛɾ/ intero. what erme: /ɛɾmɛ/ intero. of what erse: /ɛɾsɛ/ intero. to what (indirect object) erwe: /ɛɾwɛ/ intero. with, near, by, etc. what erze: /ɛɾʒɛ/ intero. what (direct object) es: /ɛs/ intero. where esa: /ɛsɑ/ intero. to where et: /ɛt/ intero. why ev: /ɛv/ intero. who evga: /ɛvyɑ/ n. name evme: /ɛvmɛ/ intero. whose evse: /ɛvsɛ/ intero. to whom evwe: /ɛvwɛ/ intero. with, near, by, etc. whom evze: /ɛvʒɛ/ intero. whom ewa: /ɛwɑ/ *intero*. from where gan: /yan/ adj. narrow, thin **ganja:** /yan $d\hat{z}a/v$. to become thin **ganjan:** /yand $\overline{3}$ an/ v. to trim, to cut gein: /yein/ num. four geinol: /yeinol/ n. braid, plait **gel:** $/y\epsilon l/v$. to like gol: /yol/ n. stomach, belly gral: /yral/ v. to cook **ha:** $/h\alpha/v$. to be able

halîl: /halɪl/ v. to burn (something), to light on fire heil: /heil/ n. path, road hekain: /hɛkain/ n. lullaby hîlak: /hɪlak/ v. wool (generic) hîn: /hɪn/ num. eight hir: /hic/ n. (human) child **hiv:** /hiv/ *v*. to thank **hodov:** /hodov/ *n*. grass, hay hodovva: /hodovva/ n. pasture, field **hoz:** /hoʒ/ *v*. to drink **hret:** /hret/ v. to give hun: /hun/ n. (generic) yarn hwar: /hwar/ num. one hwaraiz: /hwaraiʒ/ num. one hundred hwariz: /hwariʒ/ num. one thousand **hyul:** /hjul/ *adj*. dry **hyulja:** /hjuld $\overline{3}\alpha$ / v. to become dry **hyuljan:** /hjuld3an/v. to dry i: /i/ pron. my icmîk: /ixm1k/ n. the smell of a wet animal ida: /ida/ pron. which îdh: /ıð/ num. zero ig: /iy/v. to heal ik: /ik/ pron. our ika: /ika/ adv. how ikji: /ikdʒi/ n. ear il: /il/ num. two ilzya: /ilʒjɑ/ v. to twinkle, sparkle, especially of the stars or metal

imek: /imεk/ *ν*. to melt **îmuv:** /muv/ v. to spin wool (into yarn) ina: /ina/ *adv*. when **inar:** /Indf/ *n*. moon **inriz:** /inri₃/ v. to open (something) **înza:** /ɪŋʒɑ/ *n*. bone (material) inzal: /inʒal/ n. rock, stone ir: /ir/ that **îr:** /Ic/v. to have irme: /irmɛ/ pron. of that irse: /irse/ pron. to that (indirect object) irwe: /irwe/ pron. with, near, by, etc. that irze: /irʒɛ/ pron. that (direct object) is: /is/ adv. where isa: /isa/ adv. to where it: /it/ adv.. why iv: /iv/ adv. who ivme: /ivmε/ *pron*. whose ivse: /ivsɛ/ *pron*. to whom ivwe: /ivwe/ pron. with, near, by, etc. whom ivze: /ivʒɛ/ pron. whom iwa: /iwa/ adv. from where, from whence, whence jadhir: /d͡ʒaðir/ v. to open jal: /d͡ʒal/ num. nine jir: /d͡ʒir/ adj. cold jirja: /d͡ʒird͡ʒɑ/ adj. to become cold jirjan: /d͡ʒird͡ʒan/ adj. to cool kais: /kais/ num. six **kaj:** $/ \operatorname{kad}_{\overline{3}} / n$. heart

kal: /kal/ *adj*. small **kale:** /kalɛ/ *adj*. few **kalja:** $/kald\bar{3}a/v$. to become small, to shrink **kaljan:** $/kald\overline{3}an/v$. to shrink, to lessen **karad:** /karad/ v. to herd, to shepherd **karadev:** /karadev/ *n*. shepherd, shepherdess **kas:** /kas/ v. to lend kazun: /kaʒun/ n. vegetable **kevad**: /kɛvɑd/ *n*. father **kha:** /qa/ (archaic) *n*. homeland, the specific region of land one lives on **khai:** /qai/v. to do **khîn:** /qɪn/ v. to want **khogan:** /qoyan/ *n*. question kiget: /kiyɛt/ n. wind kirdîn: /kirdin/ adj. red **kirdînja:** /kirdınd $\overline{3}\alpha$ / v. to become red, to blush **kîrev:** /krev/ v. to be well, to prosper **kiye:** $/kij\epsilon/n$. seed, nut **kiz:** /kiʒ/ v. to grow **kog:** /koy/ v. to burn, to be on fire **kudîr:** /kudir/ *n*. yak, ox kuluk: /kuluk/ n. rain kur: /kur/ n. dog, hound **kustuk:** /kustuk/ *n*. hair **kuv:** /kuv/ *n*. fur. coat **kwar:** /kwar/ *v*. to learn kyav: /kjav/ adj. wide **kyavja:** $/kjavd_{3}a/v$. to become wide

kyavjan: $/kjavd\overline{3}an/v$. to widen, to stretch **kyei:** /kjei/v. to help kyînar: /kjinar/ n. person, individual lai: /lai/n. star lîcem: /lɪxɛm/ n. earth. soil **lîcme:** /lixmɛn/ v. to fill, to supply **lîcmer:** /lɪxmɛɾ/ *n*. flesh, meat lin: /lɪn/ adj. all mair: /mair/ n. sun **maiyin:** /maijin/ *n*. sister miza: /miʒa/ n. sheep **mor:** /mor/ *n*. story, tale mrod: /mrod/ adj. good, fine myok: /mjok/ adj. brown nazdi: /nazdi/ n. cloud **nei:** /nei/ *adj*. blue, purple **numair:** /numair/ *n*. the south (lit. right of the sun) **nur:** /nur/ *adj*. right (direction) **nwen:** /nwɛn/ *n*. scarf o: /o/ pron. his, her, their (singular), its **oer:** $/0\epsilon r/v$. to weave ogna: /oyna/ n. evening ok: /ok/ pron. their (plural) **okhodh:** /ogoð/v. to whittle, to flint knap ok-hwîr: /okhwir/ v. to meet oktul: /oktul/ n. herb ormud: /ormud/ n. berry, fruit ot: /ot/ num. five ov: /ov/ *adj*. black

ozka: /oʒka/ n. child, offspring radh: /rað/ adv. often, frequently, a lot rakh: /rag/ num. three ri: /ri/ pron. I rik: /rik/ pron. we ruc: /rux/ n. fire sai: /sai/ adj. yellow, orange sî: /si/ adj. bright (of light), radiant **sînyad:** /sınjad/ *n*. medicine suz: /suʒ/ adj. many, a lot syor: /sjor/ adj. loud syorim: /sjorim/ adv. loudly tezem: /tɛʒɛm/ n. friend trur: /trur/ n. skin, animal hide tyul: /tjul/ n. tree **tyulva:** /tjulva/ *n*. forest, woods **u**: /u/v. to be ukya: /ukja/ n. water **ul**: /ul/ *n*. night **uwir:** /uwir/ v. to close (something) uz: /uʒ/ adj. quick, fast uzim: /uʒim/ *adv*. quickly **varak:** /varak/ v. to carve, to engrave varza: /varʒa/ n. brother **ve:** /vɛ/ *adj*. white **veja:** $/v\epsilon d\bar{3}\alpha / v$. to become white; (euphemism) to die **vejan:** $/v \epsilon d \overline{3} a n / v$. to make white, to bleach; (euphemism) to kill vi: /vi/ det./pron. this, these

vil: /vil/ det./pron. that, those (medial) vit: /vit/ det./pron. that, those (distal) vo: /vo/ pron. he, she, they (singular), it vok: /vok/ pron. they (plural) vrai: /vrai/ n. day vrud: /vrai/ n. day vrud: /vrud/ v. to tell vus: /vus/ v. to understand vusna: /vusna/ v. to make someone understand waic: /waix/ adj. some we: /wɛ/ v. to go yad: /jad/ adj. no, none yed: /jɛd/ num. seven yek: /jɛk/ v. to sing yer: /jɛr/ n. arm, branch

yil: /jil/ adj. other, additional, second
yil: /jil/ pron. someone else, something else
yoz: /joʒ/ adj. light (in color), pale
yozja: [joʒa] v. to become pale
yozjan: [joʒan] v. to lighten
yut: /jut/ adj. large, big
yutja: /jutd͡ʒa/ v. to become large; to swell, to fatten
yutjan: /jutd͡ʒan/ v. to swell, to fatten
zakna: /ʒakna/ v. to make someone laugh
zev: /ʒɛv/ n. eye
zir: /ʒir/ n. tooth
zol: /ʒol/ v. to move
zyaev: /ʒjaɛv/ n. sky

PHRASE GUIDE

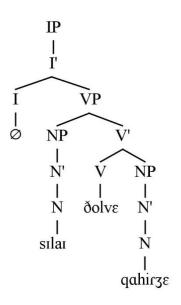
Phrase	IPA	Meaning
Kîrevkho	/kirevqo/	Hello/Goodbye. (lit). Be well! Prosper!
Ok-hwirei eimudh	/okhwirei eimuð/	Nice to meet you (lit.) Fortunate meeting
Ekhat mrod	/eqat mrod /	Good morning
Vrai mrod	/vrai mrod/	Good day, afternoon
Ogna mrod	/oyna mrod/	Good evening
Ul mrod	/ul mrod/	Good night
Tak	/tak/	'yes,' used to confirm positively formulated question
Yak	/jak/	'no', used to contradict a positively formulated question
Yan	/jan/	'no', used to contradict a negatively formulated question
Tan	/tan/	'yes', used to affirm a negatively formulated question
Dagur	/dayur/	Please
Hivei	/hivei/	Thank you
Evga i uv	/evya i uv/	My name is
Ri ur	/ri ur/	I am
Eka uc ca	[ɛka ux ka]	How are you?

10.1 X-BAR SCHEMA REPRESENTATION OF KHAHIR WORD ORDERS

Although Khahir is primarily head initial language, in order to compensate for the various word orders, the head directionality of VP and IP is not set. Additionally, the Spec position of VPs is occupied by an NP. The head of the overarching IP is filled by a null head which allows for head movement.

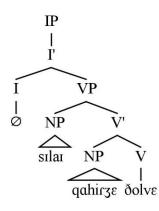
10.1.1 SVO

In the SVO word order, the X-bar schema is entirely right-branching such that the arguments branch towards the right of the head of all of the phrases.



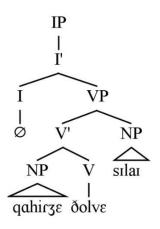
10.1.2 SOV

In the SOV word order, the head of the VP occurs after its NP complement rather before it. The remainder of the structure is right branching.



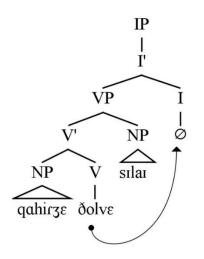
10.1.3 OVS

In the OVS word order, the NP Spec of VP occurs to the right of the head and the NP complement of VP occurs before the head.



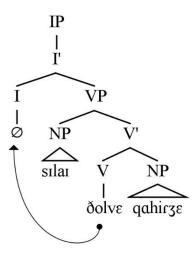
10.1.4 OSV

In the OSV word order, the head of VP originates to the right of its NP complement and to the left of its NP Spec but moves into the unoccupied head position of I.



10.1.5 VSO

In the VSO word order, the head of VP originates to the left of its NP Spec and to the right of its NP complement but moves into the unoccupied head position of I.



10.1.6 VOS

In the VOS word order, the head of VP occurs to the right of both its NP complement and its NP Spec.

