

SKYMING Reference Grammar

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May 2, 2022

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1 Introduction

SKYMING is spoken by humans living on a spaceship who survived the destruction of the solar system. The backstory continues from *The Dark Forest*, the 2nd episode of the *Three-Body Trilogy* written by Cixin Liu.

1.1 Preliminaries: The Doomsday Battle

Trisolaris lived on a galaxy based on three stars orbiting around each other in an extremely unpredictable way. This results in unbearable climate instability which precipitated Trisolaris into looking for new planets to colonize. *The Dark Forest* begins with Trisolaris' one thousand spaceships heading towards the earth. Meanwhile, they sent a probe that traveled faster towards the solar system. Humanity launched 2,000 spaceships to intercept the coming enemy.

Beihai Zhang, the head of one spaceship, *Natural Selection*, was a hard-headed defeatist. He defied the orders, sedated the ship's crew and steered the ship out of the solar system and fled into deep space.

As the Trisolaran probe approaching the human interstellar troop, humans were able to see its perfectly smooth and reflective surface, as well as its curvy shape resembling a waterdrop. It turned out that the "waterdrop" was constructed of an ultra-strong material held together directly by the strong interaction, which is strong enough to forbid any thermal molecular motion. Thus, the temperature inside the "waterdrop" reached absolute zero. It could pierce through anything as easy as a bullet could pierce through a cake. The human interstellar troop was destroyed without even a chance to struggle.

As it turned out, prior to the waterdrop's arrival The Humanity noticed *Natural Selection*'s betrayal and sent four ships in chase of them. Among those five ships which survived the waterdrop's attack, only one, *Blue Space*, survived the subsequent catastrophe.

1.2 A History Ended, and A New world Began: The Dimensional Reduction Attack

After a few eras of co-existence between Trisolaran immigrants and humans, the entire solar system was destroyed by more advanced civilizations with a weapon called "2-way foil", which flattened the solar system into a 2D space. This is referred to as the Dimensional Reduction Attack. *Blue Space* was the only thing related to humanity that survived after this catastrophe. They know there is no way turning back. There is only one path in front of them: escaping into deeper space.

The crew on *Blue Space* built a self-contained ecosystem. They reckon the point at which the "2-way foil" struck the solar system the starting year of their calendar. Because the human interstellar troop recruited soldiers from all countries, the first generation on *Blue Space* started to develop SKYMING to unite their language. SKYMING can be regarded as a descendant from all major human languages. From number and time systems to lexical construction as well as derivational morphology, there are features reminiscent of human languages and the earthly culture. In addition, since folks living on *Blue Space* work with machines and robots, linguistic features typical of machine codes or programming languages get merged into SKYMING.

1.3 Important Cultural Concepts and Cognitive Metaphors

1.3.1 Anti-Entropy

UNDERDEVELOPMENT is ENTROPY

The entropy in the universe is spontaneously increasing as everything tends to be chaotic. Low entropy represents order and only order can give rise to life and wisdom. Hence, it's essential for the development of a civilization to resist entropy increase. If a civilization wants to survive, it has to proactively exploit available resources to maintain its low entropy status. Linguistic metaphors related to this concept include:

- A developed country → A cool country
- A developing country → A condensing country
- A civilization that hasn't experienced a technology explosion → A civilization that is still warm
- Don't be silly → Don't be melting
- My brain doesn't work properly right now → My brain is kinda warm right now
- A man of wisdom → A man who well controls heat flow

1.3.2 Dimensionality is the Ultimatum

CURSE/CALAMITY is PAINTING/CANVAS

A Trisolaran sage euphemistically introduced the Dimensional Reduction Attack to the Humanity through a fable named The King's New Painter. The fable basically said once a painter paints a creature onto a canvas, that creature will cease to exist in the 3D world. Thus, in SKYMING, "painting" is associated with war/catastrophe. For example, "to draw someone" is a tabooed expression. You will have to use a workaround to literally say "to draw someone" in a non-offensive way. Moreover, later you will see many war/kill/catastrophe-related words are created from the root word for "pen".

- Rescue team → Eraser team
- A victim of an attack → A sitter of an attack
- I ran out of ammo → I ran out of ink
- Our army base → Our army palette

1.3.3 Geneticism and Pronouns

Because the goal of beings living on Blue Space is to protect and continue Humanity, they must optimize what genes get passed to their offsprings. Thus, genes have become the supreme indicator of the division of rank. Due to highly developed life science technology, a "gene checker" has been developed to assess whether an individual can be allowed to have offsprings. Every individual has to be tested by the gene checker upon maturation (again the exact time of maturation is determined by technology). Matured individuals with good genes will be allowed to have offspring. Matured individuals with bad genes will be implanted with the belief "I won't have children". Thus, the decision that comes out of the gene trial is an important factor for determining one's pronoun.

- Kid: individuals under maturation
- Male: matured men who are allowed to have offsprings
- Female: matured women who are allowed to have offsprings
- Friend: matured individuals who are not allowed to have offsprings

Yes, the word corresponding to "friend" has evolved to convey a specific meaning in SKYMING. The original notion of "my friend" is expressed by, e.g. "My friendly <name/reference>".

d3o is the default third person pronoun, which can also to non-human beings and other non-living things. In ambiguous cases, such as referring to an unknown person, or referring to conjoints of different genders, the default third person pronoun is used.

Pronouns	3SG	3PL	1SG	1PL	2SG	2PL
	dʒo	dʒome	si	sime	ʒiu	ʒiume
Kid	pae	paeme				
Male	bo	bome				
Female	tʃin	tʃinme				
Friend	fae	faeme				

Table 1: Pronouns

1.3.4 Time System

There is no absolute landmark (e.g. the earth orbiting the sun) that denote the time of the day on the spaceship. However, in memory of the Earth, the crew decide to split each day into 12 segments (1 segment = 2 hours), with the segment names alluding to the four seasons on Earth and the flowers that bloom in different seasons. Time sentences typically have “now” as the subject.

Quarter	Segment	Flower (SKYMING)	Flower (English)	Status (SKYMING)	Status (English)
1	1	muʒə	li	crabapple	budding
	2	muʒə	ʒu	crabapple	blooming
	3	muʒə	ko	crabapple	withering
2	4	safi	li	waterlily	budding
	5	safi	ʒu	waterlily	blooming
	6	safi	ko	waterlily	withering
3	7	faete	li	daisy	budding
	8	faete	ʒu	daisy	blooming
	9	faete	ko	daisy	withering
4	10	iuzu	li	narcissus	budding
	11	iuzu	ʒu	narcissus	blooming
	12	iuzu	ko	narcissus	withering

Table 2: Time system: 4 quarters and 12 segments

2 Phonology

2.1 Vowels

Vowels are selected so that they spread out in the IPA chart to minimize ambiguity. In SKYMING , the spelling of a word perfectly represents its pronunciation. Thus, the same phoneme symbols constitute the orthography.

Phoneme	Monophthongs						Diphthongs		
	a	i	u	e	o	ə	iu	in	ae
IPA Symbol	ɐ	i	u	e	ə	ə			
Gloss	Sarah	me	moody	beta	oh		you	inn	pie

Table 3: Vowels. Highlighted syllables in the English gloss illustrate the pronunciation.

2.2 Consonants

SKYMING avoids glottal, uvular and retroflex sounds because they are uncommon in many human languages, thereby getting less vote from the spaceship crew. The consonant inventory includes m, n, l and 8 pairs. Each pair has the same manner and place of articulation but different voicing (one voiced and one aspirated).

	Bilabial	Labio-dental	Alveolar	Post-alveolar	Velar
Plosive	b, p(<i>p^h</i>)		d, t(<i>t^h</i>)		g, k(<i>k^h</i>)
Nasal	m	n			
Fricative		v, f	z, s	ʒ, ʃ	
Affricates			dz, ts	dʒ, tʃ	
Lateral				l	

Table 4: Consonants

2.3 Syllabic Structure

C: all consonants

V: all vowels

T: t/d/s/z/ts/dz/m

SKYMING allows the following syllable pattern: (V)CV+(T). “CV+” means there can be one or more occurrences of CV. T can only be added at the end of a word as a suffix which carries some grammatical meaning. Except for the suffix, standalone consonants are not allowed because they are acoustically hard to be recognized from a distance.

SKYMING is a syllable-timed language, where each syllable takes up an equal amount of time. Stress is never placed on syllable containing ə. If a word begins with a vowel, stress is placed on the first vowel. There is no strict rule for stress placement otherwise.

3 Morphology

3.1 Demonstratives

dzi	this	ciu	that
dʒome	these	dʒome səciʊoli	those (“these over there”)
dziʃoli	here (“this place”)	ciʊʃoli	there (“that place”)
inge	now	inciu	then
dzikuʒa	this way	ciukuʒa	that way

Table 5: Demonstratives. They are also deictic pronouns.

3.2 Quantifiers

Quantifiers act as adjectives when modifying a noun, as indefinite pronouns when they are sentence subjects, and as quantifiers when the scope of quantification is appended in a locative adverbial phrase (see “sə .. ʃoli”)

uno	one/a
une	none
kino	some
kivi	all/every/any

Table 6: Quantifiers.

3.3 Numerals

The number system has base 10. Numbers from 1-10, 100, 1000, etc are arbitrarily designed. All other numbers are the compounds made by directly reading out each digit from the most significant digit to the least significant digit.

	SKYMING	English		SKYMING	English
1	ʒə	one	11	mɔʒə	ten one
2	sa	two	12	mosa	ten two
3	te	three	13	mote	ten three
4	zu	four	14	mɔzu	ten four
5	fi	five	20	samo	two ten
6	dae	six	30	temo	three ten
7	ve	seven	100	ʒəvin	one hundred
8	tiu	eight	108	ʒəvintiu	one hundred eight
9	tʃa	nine	220	savinsamo	two hundred two ten
10	mo	ten	679	daevinvemoʃa	six hundred seven ten nine

Table 7: Numerals

For fractions, I created lexicon for half, one-third, quarter, one-fifth and one-tenth (Table 8). An arbitrary fraction is named by reading out the numerator, then “lae” (fraction line), then the denominator. For example, 20/679 is “samo-lae-daeinvemotʃa”.

hola	half
saete	one-third
zuku	quarter
intu	one-fifth
infa	one-tenth

Table 8: Fractions

Decimal numbers are also read in straightforward ways. “ci” means “decimal point”. So, for example, 3.1415 is read out as “te-ci-ʒə-zu-ʒə-fi”.

3.4 Nouns

Nouns are inflected for number and possession. Noun modifiers, including adjectives, number, negation and demonstratives occur before a noun.

3.4.1 Pluralization

To pluralize a noun, you add “-me” to the noun. But pluralization is not obligatory in SKYMING . When a specific number is mentioned, the meaning should be clear without pluralization. Pluralization can be thought of as forming a collective group with multiple individuals, and is used when you want to emphasize a group as opposed to a single object.

Ex.(1)

sa pafi

sa pafi

two dog

two dog

two dogs

Ex.(2)

sivə pafime

si -və paʃi -me
1.SG -GEN dog PL
I -'s dog -s

my dogs

No number is specified, but you want to emphasize “there are more than one dog in my possession”. “sivə paʃi” is also grammatically correct which does NOT necessarily imply that I have only one dog. But, pragmatically speaking, it could be interpreted as I have only one dog.

Ex.(3)

sivə sa paʃi

si -və sa paʃi
1.SG -GEN two dog
I -'s two dog

my two dogs

Ex.(4)

dzi paʃime

dzi paʃi -me
DEM dog -PL
this dog -s

these dogs

“dʒome” and “dʒome səciʊʃoli” (Table 5) are demonstrative pronouns, but they are not demonstrative determiners. There is no determiner in SKYMING . The function of a plural demonstrative determiner is accomplished through DEM + Pluralization.

3.4.2 Nominal Possession

“-və” marks the GENETIVE case on the possessor.

In my NP50 assignment, I used “-vəli” as a second genitive marker when the possessed is abstract. But I decide to abandon this feature because it is kind of redundant.

Ex.(5)

sivə niʒo

si -və niʒo
1.SG -GEN book
I -'s book

my book

Ex.(6)

sivə niʒovə sælitə

si -və niʒo -və sælitə
1.SG -GEN book -GEN title
I -'s book -'s title

my book's title

Ex.(7)

bovə tigavə iushuzi

bo -və tiga -və iushuzi

3.SG.MASC -GEN idea -GEN risk

he -'s idea -'s risk

the risk of his idea

Possession can be right-embedded recursively.

3.4.3 Other usages of nominal possession: Part-whole relationship

Ex.(8)

supoʒavə ifi

supoʒa -və ifi

meeting -GEN beginning

meeting -'s beginning

the beginning of the meeting

Ex.(9)

supoʒavə lomolin

supoʒa -və lomolin

meeting -GEN end

meeting -'s end

the end of the meeting

Ex.(10)

supoʒavəli iushuzi

supoʒa -vəli iushuzi

meeting -GEN risk

meeting -'s risk

the risk of the meeting

Ex.(11)

tʃaetikavə ami

tʃaetika -və ami

mountain -GEN ami

mountain -'s top

the mountain's top

Ex.(12)

mindzavə fodi

mindza -və fodi

bus -GEN front

bus -'s front

the bus's front (outside)

Ex.(13)

mindzavə medi

mindza -və medi
bus -GEN inside
bus -'s inside

the inside of the bus

Ex.(14)

mindzavə medivə fodi

mindza -və medi -və fodi
bus -GEN inside -GEN front
bus -'s inside -'s front

the bus's front (inside)

3.4.4 Material

“vi ... mili” (MTR) modifies noun phrases and indicates the material. “vi” is a special particle

In my 50NP assignment, the material marker is “sə ... mili”. I decided to revise this into “vi ... mili”, which shares the same particle with the “containeer” marker “vi ... fo” for better consistency. This is to say, “vi” is for modifying noun phrases, while “sə” serves as an adverbial particle modifying sentences.

Ex.(15)

uno sudʒi vi suibeni mili

uno sudʒi vi suibeni mili
INDEF house PCL bamboo MTR
a house of bamboo material

a house made of bamboo

Ex.(16)

uno ikae vi file mili

uno ikae vi file mili
INDEF box PCL paper MTR
a box of paper material

a box made of paper

3.4.5 Container-Contained

Mark the contained by vi ... fo (CON)

Ex.(17)

uno ikae vi file fo

uno ikae vi file fo
INDEF box PCL paper CON
a box of paper contained
a box of paper

Ex.(18)
uno ikae vi migo fo
uno ikae vi migo fo
INDEF box PCL apple CON
a box of apples contained
a box of apples

3.4.6 Other usages of Mtr and Con

Measure words (e.g. slice, loaf, ...) acts like a container. But unlike a container, they can't exist alone. Thus, when you say "a loaf of bread", you don't treat loaf-bread as container-contained. You treat them as object-material. Thus, you say "a loaf of bread" by "a loaf made of bread".

Ex.(19)
uno sinki vi migo mili
uno sinki vi migo mili
INDEF box PCL apple MTR
a slice of apple material
a slice of apple

In a similar vein, units also act like measure words and cannot exist alone. For instance, you say "a litre of juice" by "a litre made of juice".

Ex.(20)
ʒə kine vi lofu mili
ʒə kine vi lofu mili
one kilogram PCL bread MTR
one kilogram of bread material
one kilogram of bread

Ex.(21)
ʒə kine vi migo mili
ʒə kine vi migo mili
one kilogram PCL apple MTR
one kilogram of apple material
one kilogram of apples

Ex.(22)
ʒə leka vi baego mili

ʒə leka vi baego mili
one litre PCL juice MTR
one litre of juice material

one litre of juice

Contrast this with “a bottle of juice”, which should use the container-contained expression rather than object-material expression.

Ex.(23)

uno bindʒo vi baego fo

uno bindʒo vi baego fo
INDEF bottle PCL juice CON
a bottle of juice contained

a bottle of juice

Ex.(24)

uno dʒin vi iudzə fo

uno dʒin vi iudzə fo
INDEF day PCL joy CON
a day of joy contained

a day of joy

Ex.(25)

uno ena vi ciku fo

uno ena vi ciku fo
INDEF year PCL sadness CON
a year of sadness contained

a year of sadness

The container-contained expression can be generalized to abstract containers.

Ex.(26)

uno bindʒo vi ʒə leka vi baego mili fo

uno bindʒo vi ʒə leka vi baego mili fo
INDEF bottle PCL one litre PCL juice MTR CON
a bottle of one litre of juice material contained

a bottle of one litre of juice

Ex.(27)

uno ikae vi ʒə kine vi migo mili fo

uno ikae vi ʒə kine vi migo mili fo
INDEF box PCL PCL one kilogram apple MTR CON
a box of one kilogram of apple material contained

a box of one kilogram of apple

You can also wrap physical containers outside measurements, demonstrating the merit of using two different expressions for container-contained and measurement-content(object-material).

Furthermore, measurements can be an attribute of a physical container. For example, a “bottle that holds one litre”, or “an apple that weighs one kilogram”. Hence, when unit words appear before a noun, it acts as an adjective.

Ex.(28)

uno ʒə leka bindʒo

uno ʒə leka bindʒo

INDEF one litre bottle

a one litre bottle

a one litre bottle

Ex.(29)

uno ʒə kine migo

uno ʒə kine migo

INDEF one kilogram apple

a one kilogram apple

a one kilogram apple

It’s interesting to see how “a one kilogram apple” and “one kilogram of apples” are differentiated.

3.5 Verbs

SKYMING gets rid of verbs as much as possible in my . The reason behind this choice is that, since folks living on Blue Space deal a lot with robots, and the action space of robots are usually defined by variables named by nouns. Thus, they are already familiar with so many action nouns that they want to push this further and speak a language (almost) without verbs. That means there will be large lexicon of action nouns. Also, a few helping verbs are created and used only when it’s really necessary.

Word	Gloss	Notes
dzaeki	DO	This is a predicate for most agent-patient expressions. The actual action noun should go after the object. So the common ordering of agent-patient expressions is Agent-dzaeki-Patient-action.
oto	BLG	This is a predicate for the figure-on-the-ground expression, which is used to express predictive possession, person has trait, person has role as well as object has property.
ati	CAUS	This is a predicate for causative expressions.
iminna	EQL	This is a predicate for expressing equivalence, which is used to express “A is B”, person has identity.

Table 9: Helping verbs.

Helping verbs are inflected for tense, aspect and passive voice. Inflection is always accomplished by affixation.

3.5.1 Tense

The PSTS and FUTS are used in situations where you want to emphasize the time interval between the present and an action happens is really short. So FUTS sounds like “I’m immediately going to xxx” [Just wait a second / I’m occupied in the next second] and PSTS sounds like “I just did xxx” [And you may not realize], with the implied pragmatics included in brackets.

Tense	Marker	Gloss	Notes
General past	-mi	PST	
Recent past	-di	PSTS	past-short
Present			default
Near future	-do	FUTS	future-short
General future	-m	FUT	

Table 10: Tense markers. They should be marked on helping verbs.

Ex.(30)

Si dzaekim sivə nova supoʒa.

Si dzaeki -m si -və nova supoʒa.
 1.SG DO -FUT 1.SG -GEN professor meeting.
 I do -will I -'s professor meeting.

I will meet my professor.

Ex.(31)

Si dzaekidi sivə nova supoʒa.

Si dzaeki -di si -və nova supoʒa.
 1.SG DO -PSTS 1.SG -GEN professor meeting.
 I do -in the recent past I -'s professor meeting.

I just had a meeting with my professor.

Ex.(32)

Dziʒoli iminnami sivə lofe.

Dziʒoli iminna -mi si -və lofe
 DEM EQL -PST 1.SG -GEN home
 This place equal -ed I -'s home

This place was my home.

Ex.(33)

Dziʒoli iminnam sivə lofe.

Dziʒoli iminna -m si -və lofe
 DEM EQL -FUTS 1.SG -GEN home
 This place equal -in the near future I -'s home

This place is going to be my home soon.

3.5.2 Aspect

Ex.(34)

Si dzaekiz ʒutə.

Si dzaeki -z ʒutə.
 1.SG DO -PRG homework.
 I do -ing homework.

I am doing homework.

Aspect	Marker	Gloss	Notes
Inceptive	-ifi	INCEP	ifi is also the noun for “beginning”
Cessative	-lomo	CESS	
Completive	-imu	COMPL	
Progressive	-z	PRG	The completive aspect is used to distinguish a pair of actions with a TELICITY difference. The uninflected expression is ATELIC (i.e. can happen over a prolonged duration), and adding -COMPL makes it TELLIC (i.e. entails a notion of “finishing” and cannot happen over a prolonged duration). Note that most actions are ATELIC and they don’t necessarily have a TELIC counterpart. Under this scenario (e.g. kick, sit, take a shower, ...) the uninflected expression already mean “the action was taken and it was done”, without an explicit Completive marker. The Progressive aspect doesn’t collate with tense because time is always explicitly said in past progressive or future progressive scenarios. There is no need to mark tense again on the helping verb. When a progressive aspect is used without an explicit time, it always means present progressive.

Table 11: Aspect markers. They should be marked on helping verbs.

Ex.(35)

Si dzaekifidi futə.

Si dzaeki -ifi -di futə.
 1.SG DO -INCEP -PSTS homework.
 I do -start -in the recent past homework.

I just started doing homework.

Ex.(36)

Si dzaekilomodi futə.

Si dzaeki -lomo -di futə.
 1.SG DO -CESS -PSTS homework.
 I do -stop -in the recent past homework.

I just stopped doing homework.

Ex.(37)

Si dzaekimudi futə.

Si dzaeki -imu -di futə.
 1.SG DO -COMPL -PSTS homework.
 I do -complete -in the recent past homework.

I just did/finished homework.

Ex.(38)

Si dzaekimi bo bəlinka.

Si dzaeki -mi bo bəlinka.
 1.SG DO -PST 3.SG.MASC persuasion.
 I do -ed him persuasion.

I persuaded him.

Ex.(39)

Si dzaekilomodi bo bəlinka.

Si dzaeki -lomo -di bo bəlinka.
 1.SG DO -CESS -PSTS 3.SG.MASC persuasion.
 I do -stop -in the recent past him persuasion.

I just stopped persuading him.

Ex.(40)

Si dzaekimudi bo bəlinka.

Si dzaeki -imu -di bo bəlinka.
 1.SG DO -COMPL -PSTS 3.SG.MASC persuasion.
 I do -complete -in the recent past him persuasion.

I just convinced him.

Ex.(41)

Si dʒindi dzaekiz bo folu.

Si dʒindi dzaeki -z bo folu.
 1.SG yesterday DO -PRG 3.SG.MASC search.
 I yesterday do -ing him search.

I was looking for him yesterday. # Since a past progressive expression always comes with an explicit time stamp, you don't need to add past tense marker after 'z'. In other words, for a progressive action, if no time is explicitly said, then that action is happening now.

Ex.(42)

Si na dʒindi dzaekimi bo folu.

Si na dʒindi dzaeki -mi bo folu.
 1.SG yesterday NEG DO -PST 3.SG.MASC search.
 I yesterday not do -ed him search.

I didn't look for him yesterday.

Ex.(43)

Si na dʒindi dzaekimumi bo folu.

Si na dʒindi dzaeki -imu -mi bo folu.
 1.SG yesterday NEG DO -COMPL -PST 3.SG.MASC search.
 I yesterday not do -complete -ed him search.

I didn't find him yesterday.

4 Syntax

4.1 Dzaeki: Agent-Patient

Ex.(44)

Si dzaekimi uno nizo miusati.

Si dzaeki -mi uno nizo miusati
 1.SG DO -PST INDEF book purchase
 I do -ed a book purchase

I did a book purchase. / I bought a book.

Ex.(45)

Si dzaekimi ziu vaerin.

Si dzaeki -mi ziu vaerin
1.SG DO -PST 2.SG visual perception
I do -ed you visual perception

I saw you.

Ex.(46)

Si dzaekimi ziu lisərin.

Si dzaeki -mi ziu lisərin
1.SG DO -PST 2.SG audio perception
I do -ed you audio perception

I heard you.

Ex.(47)

Si dzaekimi itali tʃoko.

Si dzaeki -mi itali tʃoko
1.SG DO -PST pizza ingestion
I do -ed pizza ingestion

I ate pizza.

Ex.(48)

Si dzaekimi ziu sosaʒo.

Si dzaeki -mi ziu sosaʒo
1.SG DO -PST 2.SG pain
I do -ed you pain

I beat you.

Ex.(49)

Si dzaeki adeli dzi itali tʃoko.

Si dzaeki adeli dzi itali tʃoko
1.SG DO desire DEM pizza ingestion
I do desire this pizza ingestion

I want to eat this pizza.

4.2 Oto: Figure-on-the-Ground

The primary usage of “oto” is to express predictive possession.

Ex.(50)

Uno niʒo oto si.

Uno niʒo oto si
INDEF book BLG 1.SG
A book is in me

I have a book.

Ex.(51)
Sa təluka oto dzi niʒo.

Sa təluka oto dzi niʒo
Two author BLG DEM book
Two authors are in this book

This book has two authors.

You also use “oto” to express person-has-trait and object-has-property.

Ex.(52)
Linsi oto bo.

Linsi oto bo
Wisdom BLG 3.SG.MASC
Wisdom is in him

He has wisdom. / He is smart. # person has trait

Ex.(53)
Emiutin oto dzi təlu.

Emiutin oto dzi təlu
Yellowness BLG DEM pen
Yellowness is in this pen

This pen is yellow. # object has property

Ex.(54)
Tiu sədʒin oto si.

Tiu sədʒin oto si
Eight age BLG 1.SG
Eight ages are in me

I have eight ages. / I’m eight years old.

4.3 Iminna: Equivalence

Ex.(55)
Si iminna tʃin və pinsəsi.

Si iminna tʃin -və pinsəsi
1.SG EQL 3.SG.FEM -GEN daughter
I equal she -’s daughter

I am her daughter.

Ex.(56)

Dzi iminna siubeni.

Dzi iminna siubeni
DEM EQL bamboo
This equal bamboo

This is bamboo.

Ex.(57)

Tʃin iminna Emma.

Tʃin iminna Emma
3.SG.FEM EQL Emma
She equal Emma

She is Emma.

Ex.(58)

Nobin iminna emiutin guʃin.

Nobin iminna emiutin guʃin
Banana EQL yellow fruit
Banana equal yellow fruit

Banana is a yellow fruit.

Ex.(59)

Dziʃoli iminna sivə lofe.

Dziʃoli iminna si -və lofe
DEM EQL 1.SG -GEN house
This place equal I -'s home

This place is my home.

To report time, you use “now” as the subject and “iminna” as the predicate.

Ex.(60)

Inge iminna muʒə li viu.

Inge iminna muʒə li viu.
Now EQL crabapple bud hour
Now equal crabapple bud hour

It is one o'clock.

Ex.(61)

Inge iminna muʒə ʒu viu.

Inge iminna muʒə ʒu viu.
Now EQL crabapple bloom hour
Now equal crabapple bloom hour

It is two o'clock.

Ex.(62)

Inge iminna muʒə ko viu.

Inge iminna muʒə ko viu.
Now EQL crabapple wither hour
Now equal crabapple wither hour

It is three o'clock.

Ex.(63)

Inge iminna muʒə ive.

Inge iminna muʒə ive.
Now EQL crabapple season
Now equal crabapple season

It's the first quarter of the day.

4.4 Ati: Causative

Ex.(64)

Si atidi bo dzaeki guzin.

Si	ati	-di	bo	dzaeki	guzin
1.SG	CAUS	-PSTS	3.SG.MASC	DO	laugh
I	cause	-in the recent past	him	do	laugh

I just made him laugh.

Ex.(65)

Bo atimi si cikutin.

Bo	ati	-mi	si	cikutin
3.SG.MASC	CAUS	-PST	1.SG	sad
He	cause	-ed	me	sad

He made me sad.

Ex.(66)

Bo dzaeki adeli dzi (bo) ati si cikutin. # Predictable utterance can be omitted

Bo	dzaeki	adeli	dzi	ati	si	cikutin	
3.SG.MASC	DO	desire	DEM	CAUS	1.SG	sad	
He	does	desire	that	(he)	causes	me	sad

He wants to make me sad.

Ex.(67)

Bo dzaeki adeli dzi (bo) ati si dzaeki guzin. # Predictable utterance can be omitted

Bo	dzaeki	adeli	dzi	ati	si	dzaeki	guzin	
3.SG.MASC	DO	desire	DEM	CAUS	1.SG	DO	laugh	
He	does	desire	that	(he)	causes	me	do	laugh

He wants to make me laugh.

Ex.(68)

Si atimi bo dzaeki adeli voli gɪzotʃae.

Si ati -mi bo dzaeki adeli voli gɪzotʃae
1.SG CAUS -PST 3.SG.MASC DO desire TRANSL hero
I cause -ed him do desire turn into hero

I made him want to be a hero.

4.5 Adverbials

Adverbs in SKYMING are not as rich as they are in human languages because in SKYMING it's the adjectives' job to modify the way an action is done (use an adjective before an action noun instead of having an adverb modifying the helping verb). Adverbs indicate time and certainty. Adverbs usually occur right before the helping verb, but can also occur at the very beginning or the very end of a sentence, when they act as emphasis or complements. Place, instrument, beneficiary and target are indicated via adverbial phrases.

4.5.1 Time

Ex.(69)

Dʒindo si dzaekiz ʃutə.

Dʒindo si dzaeki -z ʃutə.
Tomorrow 1.SG DO -PRG homework.
Tomorrow I do -ing homework.

Tomorrow I will be doing homework.

Ex.(70)

Si dzaekimi uno niʒo miusati enadi.

Si dzaeki -mi uno niʒo miusati enadi
1.SG DO -PST INDEF book purchase last year
I do -ed a book purchase last year

I did a book purchase last year. / I bought a book last year.

4.5.2 Certainty

Ex.(71)

Dzi amovi iminna siubeni.

Dzi amovi iminna siubeni
DEM 100% certainty EQL bamboo
This must equal bamboo

This must be bamboo.

Note that 100% certainty only reflects that the speaker of the utterance firmly believe it. But it doesn't mean the fact. If you're stating a fact, you don't need to add the certainty expression.

Ex.(72)

Si dzaeki govi dzi itali tʃoko atiuvi.

Si dzaeki govi dzi itali tʃoko atiuvi
 1.SG DO ability DEM pizza ingestion 80% certainty
 I do ability this pizza ingestion probably

I can eat pizza probably.

Ex.(73)

Adaevi bo oto nova.

Adaevi bo oto nova.
 60% certainty 3.SG.MASC BLG professor
 Likely he is in professor

It's likely that he is a professor.

Ex.(74)

Bo azuvi oto nova.

Bo azuvi oto nova.
 3.SG.MASC 40% certainty BLG professor
 He may is in professor

He may be a professor.

Ex.(75)

Bo asavi dzaeki govi dzi mo itali tʃoko.

Bo asavi dzaeki govi dzi mo itali tʃoko.
 3.SG.MASC 20% certainty DO ability DEM ten pizza ingestion.
 He might do ability this ten pizza ingestion.

He might be able to eat ten pizzas.

4.5.3 Place

Place comes in an adverbial phrase “sə ... ʃoli”. “ʃoli” is the noun for “place”. “sə” is an adverbial particle. When modifying a noun phrase, the adverbial phrase comes after the head noun. When modifying a sentence, the adverbial phrase usually occurs before the helping verb, or at the very beginning of the sentence.

Ex.(76)

uno tʃae sə mindzavə fodi ʃoli

uno tʃae sə mindza -və fodi ʃoli
 INDEF person AP bus -GEN front ADV.LOC
 a person in bus -'s front location

a person in front of the bus

Ex.(77)

uno tʃae sə mindzavə medivə fodi ʃoli

uno tʃae sə mindza -və medi -və fodi ʃoli
 INDEF person AP bus -GEN inside -GEN front ADV.LOC
 a person in bus -'s inside -'s front location

a person in the front of the bus

Ex.(78)

Dʒo oto didʒi sə təluʃo ʃoli.

Dʒo oto didʒi sə təluʃo ʃoli
3.SG BLG invisible state AP forest ADV.LOC
It is-in invisible state in forest location

It hides in the forest. # In my Narratives assignment I created the word “hidʒi” for “invisible state”. But later I realized my phonology doesn’t allow ‘h’. So I revised “hidʒi” into “didʒi”.

The adverbial phrase for location can also be used for quantification.

Ex.(79)

uno sə sivə iudzətin emiutin paʃime ʃoli

uno sə si -və iudzətin emiutin paʃi -me ʃoli
INDEF AP 1.SG -GEN happy yellow dog PL ADV.LOC
one in I -’s happy yellow dog -s location

one of my happy yellow dogs

Ex.(80)

kino sə sivə iudzətin emiutin paʃime ʃoli

kino sə si -və iudzətin emiutin paʃi -me ʃoli
INDEF AP 1.SG -GEN happy yellow dog PL ADV.LOC
some in I -’s happy yellow dog -s location

some of my happy yellow dogs

Ex.(81)

kivi sə sivə iudzətin emiutin paʃime ʃoli

kivi sə si -və iudzətin emiutin paʃi -me ʃoli
INDEF AP 1.SG -GEN happy yellow dog PL LOC
all in I -’s happy yellow dog -s location

all of my happy yellow dogs

“ʃoli” is also used for indicating orders, and is later grammaticalized into ordinals, where you don’t need to separate “sə ʃoli” with the middle number word. Ordinals can also be placed in front of a noun like an adjective.

Ex.(82)

tʃæ səsaʃoli

tʃæ sə- sa -ʃoli
person AP- two -LOC
person in- two -location

the person in the second place

Ex.(83)

ʒəʃoli tʃæ

ʒə -ʃoli tʃæ
one -LOC person
one -th person

the first person

4.5.4 Instrument

The adverbial phrase for instrument is “sə ... kuʒa”, which is usually placed before the helping verb

Ex.(84)

Si sə linsitin tiga kuʒa atimi bo iudzətɪn.

Si sə linsitin tiga kuʒa ati -mi bo iudzətɪn
1.SG AP smart idea ADV.INS CAUS -PST 3.SG.MASC happy
I with smart idea instrument cause -ed him happy

I made him happy with a smart idea.

4.5.5 Target & Indirect Object

The target or the indirect object of an action comes after an adverbial particle “pə”.

Ex.(85)

Dʒo oto tʃufole pə dʒovə edzinʃo.

Dʒo oto tʃufole pə dʒo -və edzinʃo.
3.SG BLG alertness ADV.TGT 3.SG -GEN surroundings
It is-in alertness to it -'s surroundings

It is alert to its surroundings.

Ex.(86)

Si dzaekim vəlomu dzi niʒo pə ʒiu.

Si dzaeki -m vəlomu dzi niʒo pə ʒiu
1.SG DO -FUT possession transfer DEM book ADV.TGT 2.SG
I do -will possession transfer this book to you

I will give this book to you.

Ex.(87)

Sime dzaeki giʒotʃæ maepo pə ʒiu.

Sime dzaeki giʒotʃæ maepo pə ʒiu
 1.PL DO hero name ADV.TGT 2.SG
 We do hero name to you

We call you hero.

4.5.6 Purpose & Beneficiary

Use “pə ... domə” to express “for xxx’s reason / for xxx’s benefit”. “pə” is an adverbial particle. “domə” is the word for “reason”.

Ex.(88)

Uno niʒo pə ʒiu domə

Uno niʒo pə ʒiu domə
 INDEF book AP 2.SG ADV.BENEF
 A book for you benefit

A book for you

Ex.(89)

Si dzaekimi uno niʒo miusati pə ʒiu domə.

Si dzaeki -mi uno niʒo miusati pə ʒiu domə
 1.SG DO -PST INDEF book purchase AP 2.SG ADV.BENEF
 I do -ed a book purchase for you benefit

I bought a book for you / I bought a book because of you.

Ex.(90)

Si dzaekiz ʃutə pə itali tʃoko dʒindo domə.

Si dzaeki -z ʃutə pə itali tʃoko dʒindo domə
 1.SG DO -PRG homework AP pizza ingestion tomorrow ADV.BENEF
 I do -ing homework for pizza ingestion tomorrow benefit

I’m doing homework in order to eat pizza tomorrow.

4.5.7 Source & Indirect Object

Just as actions like “give” or “sell” which accept an indirect object as the target, actions like “obtain” or “buy” accept an indirect object as the source. In SKYMING all indirect objects are indicated by adverbial phrases. “kə” denotes the source.

Ex.(91)

Si dzaekimi uno niʒo miusati kə bo.

Si dzaeki -mi uno niʒo miusati kə bo
 1.SG DO -PST INDEF book purchase AP.SRC 3.SG.MASC
 I do -ed a book purchase from him

I bought a book from him.

Ex.(92)

Si dzaekimi dzi linsitin tiga vəlifo kə bo.

Si dzaeki -mi dzi linsitin tiga vəlifo kə bo
 1.SG DO -PST DEM smart idea acquisition AP.SRC 3.SG.MASC
 I do -ed this smart idea acquisition from him

I obtained this smart idea from him.

4.6 Translatives

The TRANSLATIVES turn a noun that denotes an object into an action. “vifo X” means “becoming/turn into X”. “noliti X” means “growing out of X”

Ex.(93)

Ivin dzaeki vifo ogəse.

Ivin dzaeki vifo ogəse
 Water DO TRANSL gas
 Water does turn into gas

Water vaporizes.

Ex.(94)

Si dzaekimi sivə paʃi vifo ʒokəfi.

Si dzaeki -mi si -və paʃi vifo ʒokəfi
 1.SG DO -PST 1.SG -GEN dog TRANSL rock
 I do -ed I -'s dog turn into rock

I turned my dog into rock.

Ex.(95)

Dziʃoli dzaekimi vifo sivə lofe.

Dziʃoli dzaeki -mi vifo si -və lofe
 DEM DO -PST TRANSL 1.SG -GEN home
 This place does -ed turn into I -'s home

This place became my home.

Ex.(96)

Si dzaekidi vifo ama.

Si dzaeki -di vifo ama
 1.SG DO -PSTS TRANSL mother
 I do -in the recent past turn into mother

I just became a mother.

Ex.(97)

Kivi dzaekiz vifo sələe.

Kivi dzaeki -z vifo sələe
 INDEF DO -PRG TRANSL mystery
 Everything does -ing turn into mystery

Everything is turning into a mystery.

Another usage of TRANSLATIVES is Person-acquires-attribute

Ex.(98)

Si dzaekimi vifo tʃisotin si.

Si dzaeki -mi vifo tʃisotin si
1.SG DO -PST TRANSL strong 1.SG
I do -ed turn into strong me

I became strong.

Ex.(99)

Si dzaekimi vifo dacitin si.

Si dzaeki -mi vifo dacitin si
1.SG DO -PST TRANSL sick 1.SG
I do -ed turn into sick me

I became sick.

Ex.(100)

Ginzo dzaekimi vifo pedatin ginzo.

Window dzaeki -mi vifo pedatin ginzo
Window DO -PST TRANSL broken window
Window do -ed turn into broken window

The window became broken / The window broke.

I just realized there are two ways to say “person acquires an attribute”. Apart from using the TRANSLATIVES, one can use “DO + acquisition” (see the example below). I’d like to differentiate this two by saying that the TRANSLATIVES denote a much more radical “change”, which requires a longer accumulative process and is hard to reverse.

Ex.(101)

Si dzaekimi daci vəlifo.

Si dzaeki -mi daci vəlifo
1.SG DO -PST disease acquisition
I do -ed disease acquisition

I got sick.

TRANSLATIVES can also report times.

Ex.(102)

Inge dzaekido vifo faete li vii.

Inge dzaeki -do vifo faete li vii.
Now DO -FUTS TRANSL daisy bud hour
Now does -in the near future turn into daisy bud hour

It’s almost seven.

Ex.(103)

Inge dzaekidi vifo faete li viu.

Inge dzaeki -di vifo faete li viu.
Now DO -PSTS TRANSL daisy bud hour
Now does -in the recent past turned into daisy bud hour

It just passed seven.

Ex.(104)

Inge dzaekido vifo iuzu ive

Inge dzaeki -do vifo iuzu ive.
Now DO -FUTS TRANSL narcissus season
Now does -in the near future turn into narcissus season

It's almost the fourth quarter of the day.

Ex.(105)

Inge dzaekimi vifo safi ive.

Inge dzaeki -mi vifo safi ive.
Now DO -PST TRANSL waterlily season
Now does -in the past turn into waterlily season

It's already the second quarter of the day.

Ex.(106)

Inge dzaekidi noliti safi ive.

Inge dzaeki -di noliti safi ive.
Now DO -PSTS TRANSL waterlily season
Now does -in the recent past turn away from waterlily season

The second quarter of the day just ended.

4.7 Modal - Ability

Unlike English which uses modal verbs to convey ability, SKYMING treats ability as an ordinary action.

Ex.(107)

Si dzaeki govi dzi itali tʃoko.

Si dzaeki govi dzi itali tʃoko
1.SG DO ability DEM pizza ingestion
I do ability this pizza ingestion

I can eat this pizza.

Ex.(108)

Si dzaeki govi dzi ati bo dzaeki guzin.

Si dzaeki govi dzi ati bo dzaeki guzin.
1.SG DO ability DEM CAUS 3.SG.MASC DO laugh.
I do ability this make him do laugh.

I can make him laugh.

Ex.(109)

Si dzaeki govin dzi itali tfoko.

Si dzaeki govin dzi itali tfoko
1.SG DO inability DEM pizza ingestion
I do inability this pizza ingestion

I can't eat this pizza.

When adding negations, you can either negate the existence of an ability by using a different action (“govi” for ability and “govin” for inability), or the content of an ability by the negation particle “na”, or both

Ex.(110)

Si dzaeki govi na dzi itali tfoko.

Si dzaeki govi na dzi itali tfoko
1.SG DO ability DEM NEG pizza ingestion
I do ability this no pizza ingestion

I can not eat this pizza.

Ex.(111)

Si dzaeki govin na dzi itali tfoko.

Si dzaeki govin na dzi itali tfoko
1.SG DO inability DEM NEG pizza ingestion
I do inability this no pizza ingestion

I can't not eat this pizza.

4.8 Mood - Imperatives

My language uses different action nouns to show the degree of obligation when requesting/recommending someone to do something (Table 12).

aed3a	An order not to be disobeyed.
aed3ani	An order from a high-ranking person (e.g. boss, leader, etc)
aedeku	An serious request (usually used in “I’m asking once again for some important reason” scenarios, implying that the request has been made before with negative feedback)
iusoku	Strong request, for my benefit, but it might hurt you a little bit. (“Although I know you might not want to but I really need this.”)
isoke	Strong request, for my benefit, and it may not be too much for you. (“I’m not asking too much from you and I really need this.”)
iu3oku	Strong recommendation, for your benefit, but it might hurt you a little bit. (“Although I know you might not want to but I think it’s really good for you.”)
i3oke	Strong recommendation, for you benefit, and it may not be too much for you. (“I’m not asking too much from you and I think it’s really good for you.”)
kinni	Casual request, no big deal (e.g. open the door, pass me the tissue box, etc.)
selo	Weak request. Just asking to see if it’s possible. It’s for my benefit but not urgent and you can say no.
zelo	Weak recommendaion. Just asking to see if it’s possible. It’s for your benefit but not important and you can say no.

Table 12: Action nouns for making a request/recommendation.

Ex.(112)
Aedža iminna enoliti!

Aedža iminna enoliti!
Hard request EQL disarmament!
Hard request equal disarmament!
Drop your weapon!

Ex.(113)
Aedžani iminna žiu džindo džaeki tənici.

Aedžani iminna žiu džindo džaeki tənici.
Hard request EQL 2.SG tomorrow DO submission.
Hard request equal you tomorrow do submission.
You must submit tomorrow.

Ex.(114)
Aedeku iminna žiu na džaeki mudifə.

Aedeku iminna žiu na džaeki mudifə.
Serious request EQL 2.SG NEG DO drug.
Serious request equal you not do drug.

You must not do drugs # A pragmatic implication of “Aedeku”: I’m asking you once again because you’ve failed to obey this.

Ex.(115)
Sivə iusoku iminna žiu džaeki bo sosažo.

Si -və iusoku iminna žiu džaeki bo sosažo.
1.SG -GEN strong request EQL 2.SG DO 3.SG.MASC pain.
I -’s strong request equal you do him pain.

Can you beat him? (I know you might not want to but I really need this.)

Ex.(116)
Sivə iseku iminna žiu džaeki mo migo miusati.

Si -və iseku iminna žiu džaeki mo migo miusati.
1.SG -GEN strong request EQL 2.SG DO ten apple purchase.
I -’s strong request equal you do ten apple purchase.

Can you buy ten apples (for me)? (I’m not asking too much from you and I really need this.)

Ex.(117)
Sivə iužoku iminna žiu džaeki dzintfa tšoko.

Si -və iužoku iminna žiu džaeki dzintfa tšoko.
1.SG -GEN strong recommendation EQL 2.SG DO medicine ingestion.
I -’s strong recommendation equal you do medicine ingestion.

You should take the medicine (I know you might not want to but I think it’s really good for you.)

Ex.(118)

Sivə ızoke iminna ziu na dzaeki mo itali tʃoko.

Si -və ızoke iminna ziu na dzaeki mo itali tʃoko.
1.SG -GEN strong recommendation EQL 2.SG NEG DO ten pizza ingestion.
I -'s strong recommendation equal you not do ten pizza ingestion.

My recommendation is don't eat ten pizzas. (I'm not asking too much from you and I think it's really good for you.)

Ex.(119)

Kinni immina ziu ati zoka uta.

Kinni immina ziu ati zoka uta.
Casual request EQL 2.SG CAUS door open.
Casual request equal you make door open.

Can you open the door?

Ex.(120)

Sivə selo iminna ziu dzaeki uno sudzi miusati.

Si -və selo iminna ziu dzaeki uno sudzi miusati.
1.SG -GEN weak request EQL 2.SG DO INDEF house purchase.
I -'s weak request equal you do a house purchase.

Can you buy a house (for me)? (It's for my benefit but not urgent and you can say no.)

Ex.(121)

Sivə zelo iminna ziu dzaeki ziu və nova supoza.

Si -və zelo iminna ziu dzaeki ziu və nova supoza.
1.SG -GEN weak recommendation EQL 2.SG DO 2.SG -GEN professor meeting.
I -'s weak recommendation equal you do you -'s professor meeting.

My recommendation is you may meet your professor. (It's for your benefit but not important and you can say no.)

Ex.(122)

Sivə zelo iminna ziu na dzaeki ziu və nova supoza.

Si -və zelo iminna ziu na dzaeki ziu və nova supoza.
1.SG -GEN weak recommendation EQL 2.SG NEG DO 2.SG -GEN professor meeting.
I -'s weak recommendation equal you not do you -'s professor meeting.

My weak recommendation is you don't meet your professor. (It's for your benefit but not important and you can say no.) # You can negate a statement with “na” but there isn't a way to negate the mood, like “not must → need”. Instead, choose the action noun that shows the appropriate degree of obligation.

4.9 Relative Clauses

Ex.(123)

Si dzaekimi tʃae vaerin dzi tʃae dzindi dzaekimi ziu sosaʒo.

Si dzaeki -mi tʃae vaerin dzi tʃae dʒindi dzaeki -mi ʒiu sosaʒo
 1.SG DO -PST person visual perception DEM person yesterday DO -PST 2.SG pain
 I do -ed person visual perception this person yesterday do -ed you pain

I saw the person who hit you yesterday.

Ex.(124)

Si dzaekimi tʃae vaerin dzi tʃae ʒiu dʒindi dzaekimi sosaʒo.

Si dzaeki -mi tʃae vaerin dzi tʃae ʒiu dʒindi dzaeki -mi sosaʒo
 1.SG DO -PST person visual perception DEM person 2.SG yesterday DO -PST pain
 I do -ed person visual perception this person you yesterday do -ed pain

I saw the person that you beat yesterday. # The object of the clause can be moved to the front, right after “dzi”.

Ex.(125)

Si dzaekidi tʃae sosaʒo dzi tʃae dʒindi atimi si cikutin.

Si dzaeki -di tʃae sosaʒo dzi tʃae dʒindi ati -mi si cikutin
 1.SG DO -PSTS person pain DEM person yesterday CAUS -PSTS 1.SG sad
 I do -in the recent past person pain this person yesterday cause -ed me sad

I just beat the person who made me sad yesterday.

Ex.(126)

Si dzaekidi bo sosaʒo dzi atimi si cikutin.

Si dzaeki -di bo sosaʒo dzi ati -mi si cikutin
 1.SG DO -PSTS 3.SG.MASC pain DEM CAUS -PSTS 1.SG sad
 I do in the recent past him pain this cause -ed me sad

I just beat him, which made me sad. # Without an explicit entity after “dzi”, the subject of the clause is the entire sentence “Si dzaekidi bo sosaʒo”.

Ex.(127)

Uno tʃae dzi dzaeki niro təlurin dzaekimi si sosaʒo.

Uno tʃae dzi dzaeki niro təlurin dzaeki -mi si sosaʒo
 INDEF person DEM DO book authorship DO -PST 1.SG pain
 A person who does book authorship do -ed me pain

A person who writes books beat me.

Ex.(128)

Uno tʃae dzi ʒiu dzaeki love dzaekimi si sosaʒo.

Uno tʃae dzi ʒiu dzaeki love dzaeki -mi si sosaʒo
 INDEF person DEM you DO affection DO -PST 1.SG pain
 A person who you do affection do -ed me pain

A person who you like beat me. # The clause has a missing object. Since the sentence hasn’t finished when you see the clause, the object of the clause can’t be the entire sentence (as opposed to 44). Therefore, the missing object is inferred from the nearest entity before “dzi”.

Ex.(129)

Bo oto nova dzi dzaeki si love.

Bo oto nova dzi dzaeki si love
3.SG.MASC BLG professor DEM DO 1.SG affection
He is-in professor who does me affection

He is a professor who likes me.

Ex.(130)

Bo na oto nova dzi si dzaeki kəruna.

Bo na oto nova dzi si dzaeki kəruna
3.SG.MASC NEG BLG professor DEM 1.SG DO admiration
He not is-in professor that I do admiration

He isn't a professor that I admire.

Ex.(131)

Bo dzi dzaeki si love oto təluka.

Bo dzi dzaeki si love oto təluka
3.SG.MASC DEM DO 1.SG affection BLG writer
He who does me affection is-in writer

He, who likes me, is a writer.

Ex.(132)

Si dzaekimi nižo miusati dzi nižo sa təluka oto.

Si dzaeki -mi nižo miusati dzi nižo sa təluka oto
1.SG DO -PST book purchase DEM book two authors BLG
I do -ed book purchase this book two authors are-in

I bought a book which has two authors. # The correct order of the clause should be “sa təluka oto nižo”, while the object can be moved to the front, right after “dzi”.

4.10 Questions

Ex.(133)

Kiuži baikinni, žiu dzaekimi si vaerin? Tfu.

Kiuži baikinni, žiu dzaeki -mi si vaerin? Tfu.
Query correctness, 2.SG DO -PST 1.SG visual perception? True.
Query correctness, you do -ed me visual perception? True.

Did you saw me? Yes, I did.

Ex.(134)

Kiuži baikinni, žiu dzaekimi si vaerin? Na.

Kiuži baikinni, žiu dzaeki -mi si vaerin? Na.
Query correctness, 2.SG DO -PST 1.SG visual perception? False.
Query correctness, you do -ed me visual perception? False.

Did you saw me? No, I didn't.

Ex.(135)

Kiuži baikinni, žiu na dzaekimi si vaerin? Tfu.

Kiuži baikinni, žiu na dzaeki -mi si vaerin? Tfu.

Query correctness, 2.SG NEG DO -PST 1.SG visual perception? True.

Query correctness, you not do -ed me visual perception? True.

You didn't saw me, right? No, I didn't.

Ex.(136)

Kiuži baikinni, žiu na dzaekimi si vaerin? Na.

Kiuži baikinni, žiu na dzaeki -mi si vaerin? Na.

Query correctness, 2.SG NEG DO -PST 1.SG visual perception? False.

Query correctness, you not do -ed me visual perception? False.

You didn't saw me, right? Yes, I did.

Ex.(137)

Kiuži ožako, inge?

Kiuži ožako, inge?

Query time, now?

Query time, now?

What time is it now?

Ex.(138)

Kiuži fibona, migo?

Kiuži fibona, migo?

Query number, apple?

Query number, apple?

How many apples?

Ex.(139)

Kiuži kutə, migo?

Kiuži kutə, migo?

Query price, apple?

Query price, apple?

How much are apples?

Ex.(140)

Kiuži ožako, žiu dzaekimi si vaerin?

Kiuži ožako, žiu dzaeki -mi si vaerin?

Query time, 2.SG DO -PST 1.SG visual perception?

Query time, you do -ed me visual perception?

When did you saw me?

Ex.(141)

Kiuži foli, žiu dzaekimi si vaerin?

Kiu3i ʃoli, 3iu dzaeki -mi si vaerin?
Query place, 2.SG DO -PST 1.SG visual perception?
Query place, you do -ed me visual perception?
Where did you saw me?

Ex.(142)
Kiu3i domə, 3iu dzaekimi bo sosa3o?
Kiu3i domə, 3iu dzaeki -mi bo sosa3o?
Query reason 2.SG DO -PST 3.SG.MASC pain?
Query reason, you do -ed him pain?
Why did you beat him?

Ex.(143)
Kiu3i ku3a, 3iu atimi bo dzaeki guzin?
Kiu3i ku3a, 3iu ati -mi bo dzaeki guzin?
Query instrument, 2.SG CAUS -PST 3.SG.MASC DO laugh?
Query instrument, you cause -ed him do laugh?
How did you make him laugh?

Ex.(144)
Kiu3i tʃae, 3iu?
Kiu3i tʃae, 3iu?
Query person, 2.SG?
Query person, you?
Who are you?

Ex.(145)
Kiu3i tʃae, tʃinvə pinsəsi?
Kiu3i tʃae, tʃin -və pinsəsi?
Query person, 3.SG.FEM -GEN daughter?
Query person, she -'s daughter?
Who is her daughter?

Ex.(146)
Kiu3i d3o, 3iu dzaekimi d3o vaerin?
Kiu3i d3o, 3iu dzaeki -mi d3o vaerin?
Query 3.SG, 2.SG DO -PST 3.SG visual perception?
Query it, you do -ed it visual perception?
What did you see?

Ex.(147)
Kiu3i d3o, d3o atimi 3iu dzaeki guzin?

Kiu3i d3o, d3o ati -mi 3iu dzaeki guzin?
Query 3.SG, 3.SG CAUS -PST 2.SG DO laugh?
Query it, it cause -ed you do laugh?

What made you laugh?

Ex.(148)

Kiu3i t3ae, d3o atimi 3iu dzaeki guzin?

Kiu3i t3ae, d3o ati -mi 3iu dzaeki guzin?
Query person, 3.SG CAUS -PST 2.SG DO laugh?
Query person, it cause -ed you do laugh?

Who made you laugh?

Ex.(149)

Kiu3i t3ae, 3iu atimi d3o dzaeki guzin?

Kiu3i t3ae, 3iu ati -mi d3o dzaeki guzin?
Query person, 2.SG CAUS -PST 3.SG DO laugh?
Query person, you cause -ed it do laugh?

You made who laugh?

Ex.(150)

Kiu3i t3ae, 3iu dzaekimi d3o vaerin?

Kiu3i t3ae, 3iu dzaeki -mi d3o vaerin?
Query person, 2.SG DO -PST 3.SG visual perception?
Query person, you do -ed it visual perception?

Who did you see?

Ex.(151)

Kiu3i t3ae, 3iu na dzaekimi d3o vaerin?

Kiu3i t3ae, 3iu na dzaeki -mi d3o vaerin?
Query person, 2.SG NEG DO -PST 3.SG visual perception?
Query person, you not do -ed it visual perception?

Who didn't you see?

Ex.(152)

Kiu3i t3ae, 3iu dzaekimi dzi ni3o vəlifo kə d3o.

Kiu3i t3ae, 3iu dzaeki -mi dzi ni3o vəlifo kə d3o
Query person, 2.SG DO -PST DEM book acquisition AP.SRC 3.SG
Query person, you do -ed this book acquisition from it

From whom did you obtain this book from him?

When the person being queried is the subject or the object of the sentence, use the default third person pronoun as a placeholder. In my 100Sentence assignment, I used the demonstrative “dzi” instead. But I think “d3o” is more suitable for referring to someone unknown in the context.

When you query an attribute of an entity which is a constituent of a sentence, you have to front that entity

and re-write the sentence into a relative clause

Ex.(153)

Kiuʒi niʒovə saelitə, dzi niʒo ʒiu dzaekimi vəlifo kə bo.

Kiuʒi niʒo -və saelitə, dzi niʒo ʒiu dzaeki -mi vəlifo kə bo
Query book -GEN title, DEM book 2.SG DO -PST acquisition AP.SRC 3.SG.MASC
Query book -'s title, this book you do -ed acquisition from him

What is the title of the book that you obtained from him?

Ex.(154)

Kiuʒi sudʒivə idʒu, dzi sudʒi ʒiu dzaekimi miusati.

Kiuʒi sudʒi -və idʒu, dzi sudʒi ʒiu dzaeki -mi miusati
Query house -GEN color, DEM house 2.SG DO -PST purchase
Query house -'s color, this house you do -ed purchase

What color is the house you bought?

4.11 Comparative Clauses

SKYMING does COMPARATIVES via a special conjunction word “gile”, which means “excess”. The template is “Sə ___ kuʒa, X gile Y.” “Sə ... kuʒa” is the adverbial phrase for INSTRUMENT. You ought to fill the blank with the scale for comparison.

Ex.(155)

Sə sədʒin kuʒa, si gile ʒiu.

Sə sədʒin kuʒa, si gile ʒiu
AP age ADV.INS, 1.SG CNJ.EXCESS 2.SG
With age instrument, I excess you

I'm older than you.

Ex.(156)

Sə sədʒin kuʒa, si na gile ʒiu. # To reverse the scale, simply add a negation before the conjunction.

Sə sədʒin kuʒa, si na gile ʒiu
AP age ADV.INS, 1.SG NEG CNJ.EXCESS 2.SG
With age instrument, I not excess you

I'm younger than you.

Ex.(157)

Sə fibona kuʒa, emiutin təlu gile lifitin təlu.

Sə fibona kuʒa, emiutin təlu gile lifitin təlu
AP number ADV.INS, yellow pen CNJ.EXCESS green pen
With number instrument, yellow pen excess green pen

There are more yellow pens than green pens.

Ex.(158)

Sə fibona kuʒa, tʃae dzi si dzaeki kəʒuna gile tʃae dzi ʒiu dzaeki kəʒuna. # “kəʒuna” was misspelled as

“kəruna” in my 100Sentence assignment.

Sə fibona kuʒa, tʃæ dzi si dzaeki kəʒuna gile tʃæ dzi ʒiu dzaeki
AP number ADV.INS, person DEM 1.SG DO admiration CNJ.EXCESS person DEM 2.SG DO
With number instrument, person that I do admiration excess person that you do
kəʒuna
admiration
admiration

I admire more people than you do.

Ex.(159)

Sə fibona kuʒa, tʃæ dzi dzaeki si kəʒuna gile tʃæ dzi dzaeki ʒiu kəʒuna.

Sə fibona kuʒa, tʃæ dzi dzaeki si kəʒuna gile tʃæ dzi dzaeki ʒiu
AP number ADV.INS, person DEM DO 1.SG admiration CNJ.EXCESS person DEM DO 2.SG
With number instrument, person that do me admiration excess person that do you
kəʒuna
admiration
admiration

More people admire me than those who admire you.

Ex.(160)

Sə tubi kuʒa, sivə bekə gile ʒiuvə bekə.

Sə tubi kuʒa, si -və bekə gile ʒiu -və bekə
AP goodness ADV.INS, 1.SG -GEN work CNJ.EXCESS 2.SG -GEN work
With goodness instrument, I -'s work excess you -'s work

I do better jobs than you do.

Ex.(161)

Sə fibona kuʒa, sivə tubitin bekə gile ʒiuvə tubitin bekə.

Sə fibona kuʒa, si -və tubitin bekə gile ʒiu -və tubitin bekə
AP number ADV.INS, 1.SG -GEN good work CNJ.EXCESS 2.SG -GEN good work
With number instrument, I -'s good work excess you -'s good work

I do more good jobs than you do.

The number (fibona) scale is used very often for comparing quantities. It can be generalized to abstract quantities. You can think of this as if the degrees of two actions were being compared.

Ex.(162)

Sə fibona kuʒa, sivə love pə tʃin gile ʒiuvə love pə tʃin.

Sə fibona kuʒa, si -və love pə tʃin gile ʒiu -və love
AP number ADV.INS, 1.SG -GEN affection ADV.TGT 3.SG.FEM CNJ.EXCESS 2.SG -GEN affection
With number instrument, I -'s affection to her excess you -'s affection
pə tʃin
ADV.TGT 3.SG.FEM
to her

I love her more than you love her.

Ex.(163)

Sə fibona kuʒa, sivə love pə tʃin gile sivə love pə ʒiu.

Sə fibona kuʒa, si -və love pə tʃin gile si -və love
AP number ADV.INS, 1.SG -GEN affection ADV.TGT 3.SG.FEM CNJ.EXCESS 1.SG -GEN affection
With number instrument, I -'s affection to her excess I -'s affection
pə ʒiu
ADV.TGT 2.SG
to you

I love her more than I love you.

Ex.(164)

Sə fibona kuʒa, sivə love pə tʃin gile ʒiuvə itonu pə tʃin.

Sə fibona kuʒa, si -və love pə tʃin gile ʒiu -və itonu
AP number ADV.INS, 1.SG -GEN affection ADV.TGT 3.SG.FEM CNJ.EXCESS 2.SG -GEN hatred
With number instrument, I -'s affection to her excess you -'s hatred
pə tʃin
ADV.TGT 3.SG.FEM
to her

I love her more than you hate her.

Ex.(165)

Sə fibona kuʒa, sivə love pə tʃin gile sivə itonu pə ʒiu.

Sə fibona kuʒa, si -və love pə tʃin gile si -və itonu
AP number ADV.INS, 1.SG -GEN affection ADV.TGT 3.SG.FEM CNJ.EXCESS 1.SG -GEN hatred
With number instrument, I -'s affection to her excess I -'s hatred
pə ʒiu
ADV.TGT 2.SG
to you

I love her more than I hate you.

Ex.(166)

Sə fibona kuʒa, sivə love pə tʃin gile ʒiuvə itonu pə bo.

Sə fibona kuʒa, si -və love pə tʃin gile ʒiu -və itonu
AP number ADV.INS, 1.SG -GEN affection ADV.TGT 3.SG.FEM CNJ.EXCESS 2.SG -GEN hatred
With number instrument, I -'s affection to her excess you -'s hatred
pə bo
ADV.TGT 3.SG.MASC
to him

I love her more than you hate him.