

uruwi

Dedicated to Gufferdk.

Branch: canon Version: 0.1

Date: 2017-12-22 (29 dia len)

(C)opyright 2017 Uruwi. See README.md for details.

Contents

	0.1	Introduction	4
1	Phon	ology and orthography	5
	1.1	Phoneme inventory	5
	1.2	Hacmisation	6
	1.3	Phonotactics	7
			8
	1.4	Vowel harmony	9
2	Synta	ax 1	11
_	2.1		11
	2.2		11
	2.3		11
3	Nour	is 1	13
,	3.1		13
	3.2		13
	3.3		13
	3.4		14
	3.5		14
	3.3		14
			14
	3.6		15
	•••		16
	3.7	1	16
	3.8		16
	0.0		
4	Verb	s 1	19
	4.1	Aspect	21
	4.2	Historically clausal arguments	22
		4.2.1 Obliques	22
		4.2.2 Conjunctions	22
	4.3	Connectors	23
	4.4	Comparatives	24
	4.5	Ditransitive-like constructions	25
	4.6		25
	47		

4	CONTENT
4	CONTENT.

5	5 Descriptors	2	27
6	6.1 Activation		19 19 19 19
7	7.1 Irregular numerals		31 32 32 32
A	A Dictionary	3	5
0.	0.1 Introduction		

1 | Phonology and orthography

1.1 | Phoneme inventory

Middle Rymakonian underwent several sound changes from Lek-Tsaro, in the following order:

Thus Middle Rymakonian has the following phoneme inventory:

Table 1.1: The consonants of Middle Rymakonian.

	Bilabial	Dental	Alveolar	Palatal	Velar	Glottal
Nasal	m		n	n	ŋ	
Plosive	рb		t d	СĴ	k g	?
Fricative	fv	θð	S Z	∫3	хγ	
(coärticulated)	fx vy	θx ðγ		f∫ vʒ		
(whistled)			ŞŢ			
Affricate			ts	t∫		
Lateral fricative			łЬ			
Approximant			J	j	W	
Lateral approximant			1			
Тар			ſ			

Table 1.2: The vowels of Middle Rymakonian.

	Front	Central	Back
High Mid	i	ų	ш
Mid	ε		Λ
Low		a	

In addition to consonants and vowels, Middle Rymakonian has rod signals, represented by numbers. Rod A is blue and held by one's dominant hand and B is red and held by one's non-dominant hand. Rod signals can occur only at the end of words.

- 1. Rod A is raised to one's chest, while B is pointed down.
- 2. Rods A and B are crossed in the front.
- 3. Rod B is raised upwards in front of the nondominant arm, while rod A is lowered.
- 4. Rod A is pointed sideways near one's nondominant arm, while rod B is lowered.
- 5. Rods A and B are extended to the sides.
- 6. Rods A and B are extended, facing forward.
- 7. Rod A is raised forward, while B is pointed to the side.
- 8. Rod B is raised forward, while A is pointed to the side.

Lowering both rods is interpreted as an absence of a rod signal. If the use of rods are unavailable, the numerals of the positions may be pronounced.

1.2 | Hacmisation

As using IPA is quite wieldly, we shall use the following hacmisation, with superscript letters to indicate phonemes not found in Arka.

Table 1.3: The consonants of Middle Rymakonian.

	Bilabial	Dental	Alveolar	Palatal	Velar	Glottal
Nasal	D		n	n ^ų	n ^φ	
Plosive	d b		Ω	ſΥ <u>Ω</u> Υ	Ìφ	
Fricative	αu	J^{α} Z^{u}	JΖ	ls	J ^l φ ^s	
(coärticulated)	a ^h u ^h	J ^h Z ^h		a ^l us		
(whistled)			J° Z°			
Affricate			ρ	l _r		
Lateral fricative			l ^l s ^l			
Approximant			h	Ч	0	
Lateral approximant						
Тар		•	Ч			

Rod signs are represented by the hacm digits $\langle 1 \ J \ \rangle \ \$ 1 $\ \$ 3 $\ \$ attached to the end of the verbs they encompass. Proper words are preceded by a backslash $\langle V \rangle$.

Note that the hacmisation is slightly different from Lek-Tsaro's use of hacm. Lek-Tsaro's $\langle h \rangle$ are now written using $\langle l \rangle$, for instance.

1.3. PHONOTACTICS 7

Table 1.4: The vowels of Middle Rymakonian.

	Front	Central	Back
High Mid	С	3	ə
Mid	е		Э
Low		1	

1.3 | Phonotactics

As opposed to Lek-Tsaro, which uses syllables, Middle Rymakonian uses *phonoruns*. The following *defined categories* are used:

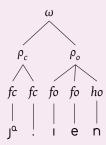
Table 1.5: Categories of phonemes.

Category	Phonemes
Full-open	ıecɔəuz ^u zz ^o sφ ^s s ^l yołί
	3 h l o u u _d u _b l d
Neutral	JJ ^o lluhzhus 1 J
Half-closed	αllhΔ
Full-closed	^γ α ^h γ ^h α ^l d b ר Ω ^M Ω ^y 1 φ Γ ^f . ז א

These are converted into actual categories as follows:

- Full-open and full-closed phonemes are always realised as open and closed, respectively.
- Half-open phonemes are open unless the previous phoneme is full-closed.
- Half-closed phonemes are closed unless the previous phoneme is full-open.
- Neutral phonemes that do not occur word-initially inherit the actual category of the phoneme before it.
- Neutral phonemes that occur word-initially are closed.

A *phonorun*, then, is a maximal sequence of phonemes that are either all open or all closed within a word. For instance, take $\langle j^{\alpha}.len \rangle \langle xj^{h}l.en \rangle$:



Note that two phonemes in the word were metathesised when it was derived from Lek-Tsaro. In general, a word with n spoken phonemes cannot have more than $\lceil n/2 \rceil$

phonoruns. Therefore, the following changes are executed in order until an application of one rule reduces the number of phonoruns to an acceptable number, after which the other rules are not executed:

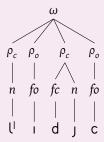
$$\begin{array}{c} X_{1}[do]X_{2}[dc]R[do] \to X_{2}X_{1}R \\ X_{1}[dc]X_{2}[do]R[dc] \to X_{2}X_{1}R \\ X_{1}[dc]X_{2}[do]X_{3}[do] \to X_{1}X_{2}X_{3} \\ X_{1}[do]X_{2}[do]X_{3}[do] \to X_{1}X_{2}X_{3} \\ X_{1}[op \geq 0]X_{2}[do]X_{3}[do] \to X_{1}X_{2}X_{3} \\ X_{1}[op \geq 0]X_{2}[dc]X_{3}[do]X_{4}[op \leq 0] \to X_{1}X_{3}X_{2}X_{4} \quad [X_{1}.op + X_{3}.op - X_{2}.op - X_{4}.op \geq 6] \\ X_{1}[op \leq 0]X_{2}[do]X_{3}[dc]X_{4}[op \geq 0] \to X_{1}X_{3}X_{2}X_{4} \quad [X_{2}.op + X_{4}.op - X_{1}.op - X_{3}.op \geq 6] \\ X_{1}[do]X_{2}[dc]X_{3}[do] \to X_{1}X_{3}X_{2} \qquad \qquad \text{for ever} \\ X_{1}[dc]X_{2}[do]X_{3}[dc] \to X_{2}X_{1}X_{3} \qquad \qquad \qquad \text{for ever} \end{array}$$

where R means a rod signal, X represents a spoken phoneme and op stands for openness (full-open = 2, neutral = 0, full-closed = -2). do is short for op > 0, and dc is short for op < 0. (The same rule can occur multiple times within a word, although such invocations may not intersect each other.)

All of the rules above move from right to left and do not occur across compound boundaries. The last two rules are executed in parallel in a loop until the number of phonoruns is reduced to an acceptable number or both rules converge to a fixed point. This process will hereafter be called *phonorun reduction*.

In the example above, $\langle x j^{\alpha} | .en \rangle$ had $4 > \lceil 5/2 \rceil$ phonoruns, so the third rule was applied. This changed the word into $\langle j^{\alpha} | .en \rangle$, which has $2 \leq \lceil 5/2 \rceil$ phonoruns.

An example where phonorun reduction does not result in a word with few enough phonoruns is $\langle l^i djc \rangle$ soup, which has the starting phonoruns



Obviously, the first four rules do not match anywhere in the word. The sixth rule seems promising because it matches the pattern at $\langle l^l l d_{J} - \rangle$, but the required sum is 0+2+2+0<6, so this rule does not match. In addition, the last two rules do not match, and we encounter a fixed point. In such cases, the anomaly is allowed to pass.

The dictionary lists forms of roots *before* the phonorun reduction happens, because affixes can radically affect which phonemes are switched.

1.3.1 | Prosody

The time taken to utter a phonorun is given by the model:

1.4. VOWEL HARMONY 9

$$t_o = K \cdot (1 + v \cdot \alpha + c \cdot \beta)$$
 (phonorun is open) (1.1)
 $t_c = K \cdot \eta \cdot (\gamma + v \cdot \alpha + c \cdot \beta)$ (phonorun is closed) (1.2)

where *K* is a constant varying from person to person, *v* is the number of vowels and *c* is the number of consonants in the run. α , β , γ and η are also constants such that $\beta < \alpha$, and both γ and η are less than 1. In other words:

- There is a fixed cost for starting a new phonorun. This cost is less for closed phonoruns than open.
- Closed phonoruns are faster to say than open runs with the same number of consonants and vowels.
- Closed phonoruns are also more length-dependent than open runs.
- It takes less time to utter consonants than vowels.

An estimate of the constants for the standard dialect would be $\alpha=0.37, \beta=0.46,$ $\gamma=0.82$ and $\eta=0.61$.

1.4 Vowel harmony

Middle Rymakonian inherits vowel harmony from Lek-Tsaro. Thus $\langle c \rangle$ are front vowels, $\langle a \rangle$ are back vowels and $\langle c \rangle$ are neutral. Most roots with neither front nor back vowels act as if they had front vowels, though some might behave as if they had back vowels. Many affixes will change depending on which vowels are present.

If by some odd chance a word has both front and back vowels, then the rightmost vowel (before phonorun reduction) takes precedence.

2 Syntax

2.1 | Basic word order

The basic word order is VSO. Descriptors follow what they modify.

However, unlike Lek-Tsaro, Middle Rymakonian has oblique arguments. As these were historically formed from a preclause, all obliques precede V. Likewise, any arguments with conjunctions also precede V. Such arguments that were formed from a clause will be called *historically clausal arguments* (HCAs).

Usually, oblique arguments are prepared by prepositions and fall after what they modify (unless the antecedent is V), but if an oblique argument is a conjunctional phrase or governs an HCA, it uses a postposition instead and precedes its antecedent.

2.2 Questions

In all questions, the intonation of the second word of the last clause is lowered considerably.

Binary questions have the interrogative polarity marker and no change to syntax. In wh-questions, the wh-word is pulled to the front (i. e. before the verb). This requires case marking for the wh-word:

```
(lezcn peas)(l) do8
who-acc speak-far.past-Q pr.far
Whom did you speak to?
```

This applies only to questions, not interrogative-mood clauses that act as relative clauses:

```
peasjll do fel, yif po. speak-far.past pr.anaph_obj I saw the person whom you talked to.
```

2.3 | Multiple clauses

A sentence might have multiple clauses. Each clause in a sentence follows the basic VSO order, and clauses are separated with commas.

12 CHAPTER 2. SYNTAX

3 Nouns

Nouns are declined for number, case and definiteness.

3.1 Number

Countable nouns come in two numbers: dual and non-dual.

There are two different conceptualisations of the dual number. Some dialects use the dual number to refer to all cases with two objects (we say that they have the *unpaired dual*); others use it only to refer to objects in pairs (these lack the unpaired dual). In general, dialects without the unpaired dual are more prevalent in cities, as well as northern regions.

Each countable noun has *an inherent number*. A noun whose number agrees with its inherent number receives no marking; a mismatch causes the noun to receive a special affix.

3.2 | Case

In a clause with both the subject and object directly expressed in that order, both the subject and object are declined in the nominative case (and their roles are inferred through word order). In a clause where only one is present, or where both are expressed in the opposite order, the subject will receive the nominative case and the object will receive the accusative case.

3.3 Noun classes

There are three overarching groups of noun classes.

- 1. Countable
 - (a) Sentient such as humans, AIs, deities.
 - (b) Non-sentient anything else.
- 2. Measurable
 - (a) Measure all measurable nouns, especially units of measurement.
- 3. Uncountable
 - (a) Edible edible (to humans).

14 CHAPTER 3. NOUNS

- (b) Inedible inedible (to humans).
- (c) Abstract abstract ideas.

3.4 | Definiteness

The definite form of a noun is formed regularly by reduplicating the first syllable (without the coda): \(DIZI \rangle "a person" becomes \(DIDIZI \rangle "the person". \)

3.5 | Declension table

Here, the inflected forms of words are shown both before and after phonorun reduction to illustrate the pattern. The declension patterns for each class is shown, both for roots ending with consonants and those ending with vowels.

Note that noun declensions for countable classes respect vowel harmony. For nouns with back vowels, replace the front vowels with the back vowels of the same height and rounding, and vice versa. (Noun declensions for measurable and uncountable classes do not respect vowel harmony.)

3.5.1 | Countable classes

Table 3.1: Declensions for countable nouns.

	Direct #	Inverse #	
Sentient: 💢	וצו> "person"		
Nominative	DIZI (DIZI)	DIZI (DIZI)	
Accusative	DIZIN (DIZIN)	DIZINI (DIZINI)	
Sentient: <×j	۵،en> "magician"		
	j ^a ı.en (j ^a .ien)	j ^α ı.el (j ^α .ıel)	
Accusative	j ^a ı.ezcn (j ^a ı.ezcn)	յ ^a ı.eµcl (յ ^a ı.eµcl)	
(Note that the	e final consonant is preserved only	in the direct nominative form.)	
Non-sentient	: <xɒɜn<sup>φɔ> "rabbit"</xɒɜn<sup>		
Nominative	Coura (causa)	(G.C ^P NEC) (G.C ^P NEC	
Accusative	(DSU _b USQ) (OSU _b USQ	(Guc ^o nea) (Guconea	
Non-sentient: (x.cden) "house"			
Nominative	.coen (.coen)	.cde.c (.cdec.)	
Accusative	.cdezcd (.cdezcd)	.cpehcnc (.cpehcnc)	

3.5.2 | Measurable and uncountable classes

Table 3.2: Declensions for measurable and uncountable nouns.

	Direct			
Measure: <×	Measure: <xµ3d3> "day (continuous)"</xµ3d3>			
	Nominative µ3D3 (µ3D3)			
Accusative	hadau (hadau)			
Measure: <×	Measure: <xdel> "volume" (in expressions such as <xdel-43j2> "cupful")</xdel-43j2></xdel>			
Nominative	Nominative Del (Del)			

3.6. PRONOUNS 15

	Direct	
Accusative	pezcn (pezcn)	
Edible: <xfep< td=""><td>J.C〉"beef"</td></xfep<>	J.C〉"beef"	
	lehrc (lehcr)	
Accusative	lep.cn (lepc.n)	
Edible: <xdi< td=""><td>'rice'</td></xdi<>	'rice'	
Nominative	,	
	DINCN (DINCN)	
Inedible: <x< td=""><td></td></x<>		
Nominative	helo (heol)	
	ecdleų)	
Inedible: <x< td=""><td><i>y</i>-</td></x<>	<i>y</i> -	
Nominative	Jirlil (Jirlil)	
Accusative	Jirlijde (Jirlijde)	
Abstract: <x< td=""><td>a^həddə "empathy"</td></x<>	a ^h əddə "empathy"	
Nominative	a^h ədə (a^h ədə)	
Accusative	α ^h əpon ^φ (α ^h apon ^φ)	
Abstract: ⟨xφcj⟩ "[the number] five"		
Nominative		
Accusative $\phi CZCn^{\phi}$ ($\phi CZCn^{\phi}$)		
Here, the fina	ll consonant is voiced if it is a fricative.	

(NB: be sure to change any $\langle 1 \rangle$ and $\langle 1 \rangle$ into $\langle 1^4 \rangle$ and $\langle 1^5 \rangle$ respectively before $\langle 2 \rangle$.)

3.6 | Pronouns

Personal pronouns are not divided into first, second and third persons as in most languages. Instead, they fall into four categories which exhibit different behaviour depending on whether they occur as the first non-oblique noun in the clause or elsewhere (second noun, verb inflection, oblique):

Table 3.3: Pronoun persons and their functions.

Person	Role in first position	Role elsewhere	
Near	The speaker.	The first argument of the	
		sentence.	
Far	The listener.	The person with which the	
		first argument is conversing.	
Other	A third entity.	An entity that is neither the	
		speaker, the listener nor the	
	first argument.		
Generic	A generic entity (akin to "one	").	
Anaphoric Subject	The subject of the previous clause. Also used on the verb		
	when an oblique or conjunction is present.		
Anaphoric Object	The object of the previous cla	use.	

In wh-questions, the wh-word assumes the second position and the other argument becomes the first.

16 CHAPTER 3. NOUNS

If a clause has no explicit arguments, the first argument is understood to be the subject.

	Nominative		Accusative		
	Non-dual Dual		Non-dual	Dual	
Near	ſı	aczc	lin	aczen	
Far	do bµı		don	bµın	
Other	nc	Jizc	ncn	lizen	
Anaph. Sub.	μı	n ⁴ cµc	μın	n ⁴ cµen	
Anaph. Obj.	cye ^p n cy e.		pon	n ^ų əµɔn	
Generic			.ən		

Table 3.4: Personal pronouns (before phonorun reduction).

3.6.1 | Last-clause pronouns

The anaphoric pronoun <ebj> (accusative: <bezen>) is grammatically an other pronoun, and it refers to the previous clause said. Likewise, <bech>) (accusative: <bech>) refers to the clause before the previous one. All of these pronouns should undergo phonorun reduction inside a compound.

3.7 | Compounding

Nouns can be compounded together in a head-initial manner. When that happens, only the leftmost noun is the one to be declined.

```
Del-μ3j3-α<sup>l</sup>3μθ-φcj
volume-cup-water-five
five cupfuls of water
```

Note that pronouns can modify other nouns, in which personal possession is indicated:

```
Del-μ3j3-α<sup>l</sup>3μθ-φcj-ſι
volume-cup-water-five-PR.NEAR.NONDUAL
(arg1)'s five cupfuls of water
```

Descriptors can also compound on nouns. Unlike in Lek-Tsaro, this is the only way to have descriptors modify nouns.

DIZI–ÌfƏI DIZI–ÌƏİI person-old old people

3.8 | Possession

"X's Y" is translated as $\langle Y=DI | X \rangle$ (plus phonorun reduction). The possessive construction is also used to create appositives. (Note the head-marking!)

3.8. POSSESSION 17

Observe that possession marks the head, and $\langle -DI \rangle$ is a clitic, not an affix, as in the following example:

```
D3D3N^{\phi}3-\alpha^{l}3\mu9-DI J^{h}.ien D3D3N^{\phi}3-\alpha^{l}3\mu9-DI J^{h}i.en DEF~rabbit-water=GEN magician the magician's water rabbit
```

This construction is also used when compounding would otherwise be used, but the dependent is larger than a single noun or descriptor:

```
nyızıdı i.lle an fij
cat=GEN 4096 and two
4098 cats
```

18 CHAPTER 3. NOUNS

4 Verbs

Verbs are conjugated for person of the subject, tense, polarity and tellicity, in two paradigms. Conjugation respects vowel harmony. In addition, a final $\langle -J \rangle$ or $\langle -Z \rangle$ in the stem of a first- or second-conjugation verb becomes whistled in the generic form. The dictionary lists the stem of the verb and the conjugation scheme used.

Table 4.1: Person-tense conjugations for first-conjugation verbs, using <DI)-> "(S) eats (O)", before and after phonorun reduction.

	Nonpast	Past
Near	DIJIU (DIJIU)	סואר (סוואן)
Far	DIJIU (DIJIU)	DIJ3] (DIJ3J)
Other	DIJI (DIIJ)	DIJ3 (DIJ3)
Anaph. Sub.	DIJe (DIEJ)	Dilel (Dilel)
Anaph. Obj.	DIIC.e (DII.ce)	DIC.el (DI).cel)
Generic	DIJC (DICJ)	DIJC (DICJ)

Table 4.2: Person-tense conjugations for second-conjugation verbs, using $\langle n \ni n - \rangle$ "(S) kills (O), (O) dies", before and after phonorun reduction.

	Nonpast	Past
Near	nənın (nənın)	nənıf (nənıf)
Far	nənın (nənın)	nən3j (nən3j)
Other	nənı (nənı)	nən3 (nən3)
Anaph. Sub.	nənə (nənə)	nənel (nənəl)
Anaph. Obj.	nənə.ɔ (nənə.ɔ)	nənə.əl (nənə.əl)
Generic	nənə (nənə)	nənə (nənə)

Notes:

- The polarity-tellicity suffix is added after the person-tense ending.
- "Negative atelic" means something akin to "unsuccessfully tried to avoid doing χ ".
- The interrogative polarity, in addition to marking questions, is used to mark clauses that may or may not be true but are referred to later in the sentence.

20 CHAPTER 4. VERBS

Table 4.3: Person-tense conjugations for third-conjugation verbs, using \u2214\u221eu-\u2214 "(S) spreads (O)", before and after phonorun reduction.

	Nonpast	Past
Near	peucn (peucn)	hencl (hencl)
Far	peuin (peuin)	hensi (hensi)
Other	peui (peui)	hena (hena)
Anaph. Sub.	peue (peue)	peel (peuel)
Anaph. Obj.	peuc.e (peuc.e)	peuc.el (peuc.el)
Generic	hens (hens)	hen3 (hen3)

Table 4.4: Polarity-tellicity suffixes for verbs (before phonorun reduction). The interrogative affix can also follow a negative affix.

	Positive	Negative	Interrogative
Telic	_·	_l ⁴ e / −Jɔ	_J _ſ ı
Atelic	-DC / -DƏ	ار– ا	_l3

Some examples:

```
Dilin l'ide l'ozo.
eat-NEAR.NONPAST fish flower
Fish eat flowers.
uy isiyn nilia ,csc<sup>1</sup> shi<sup>1</sup>li nilia
eat-NEAR.NONPAST fish flower, eat-NEAR.NONPAST cat PR.ANAPH_SUB
Fish eat flowers, and cats eat fish.
nllin l'ide (csc) pidlie.
DIII Ulide (szc, pile pilibe.
eat-NEAR.NONPAST fish flower, eat-ANAPH_SUB.NONPAST grass-ACC
Fish eat flowers, and they eat grass.
(Grass is inedible to humans, but edible to fish.)
eyl) cych Panilia
eych appullia
eat-NEAR.NONPAST-NEG flower fish
Flowers don't eat fish.
dµcn nc llµcllµcΩen, jenin (i ebj.
dμcn nc l<sup>l</sup>μcl<sup>l</sup>μcΩen, jenin (i ebj.
carry-near.nonpast pr.other def~book, worry-near.nonpast pr.near
PR.LAST CLAUSE
He has the book; that worries me.
or: That he has the book worries me.
dμcni)<sup>l</sup> nc )<sup>l</sup>μc)<sup>l</sup>μcΩen, jenin (i ebj.
dμcn)<sup>l</sup>ı nc )<sup>l</sup>μc)<sup>l</sup>μcΩen, jenin (i ebj.
```

carry-near.nonpast-interrogative pr.other def~book, worry-near.nonpast pr.near.int pr.last_clause

He might have the book; that worries me.

or: That he might have the book worries me.

4.1 | Aspect

Verbs can also be marked for aspect, either using a rod sign directly on the verb, or a particle with a rod sign, placed anywhere between the verb it modifies and the next verb

Table 4.5: Aspect markers. Those with hyphens are attached to verb. Those without hyphens are placed as separate particles anywhere after the verb.

Aspect name	Marking	Meaning
Imperfect	- 1	An action that is currently going on. Also
		used to distinguish static actions as op-
		posed to dynamic (e.g. wear as opposed to
		put on).
Interrupted	l ^t cl1	An action that was interrupted.
Perfect	_]	An action that has already finished.
		Changes present tense to immediate past.
		Also used to distinguish dynamic actions
		as opposed to static (e. g. put on as opposed
		to wear).
Gnomic	-7	A general truth or aphorism, or an action
	4 15	done habitually.
Gnomic dubitative	(cl)	A general truth or aphorism that the
	_	speaker considers to be false.
Deontic necessity	– 0	An action that the speaker insists on hap-
Point and a secretary	lael	pening.
Epistemic necessity	ועטפּו	An action that the speaker infers is happen-
Deontic potential	4_	ing, An action that the speaker permits to occur.
Epistemic potential	190 f	An action that the speaker infers that might
Lpisteinic potentiai	1001	happen.
Unexpected	_ {	An action that is unexpected (akin to using
Опекрессей	'	"but").
Comparative	des	Indicates an action of greater intensity
I I I		than what was described in the previous
		clause.
Nonexclusive subject	ſчc1	Indicates that the subject comprises not
		only of what is explicitly mentioned, but
		also other things.
Nonexclusive object	сſЧʔ	Indicates that the object comprises not
		only of what is explicitly mentioned, but
		also other things.
Nonexclusive argument	clau	Combination of both nonexclusive subject
		and nonexclusive object.

22 CHAPTER 4. VERBS

An attached rod signal reverts $\langle J^{\alpha} z^{u} \rangle$ to $\langle J^{h} z^{h} \rangle$, respectively, and might affect phonorun reduction.

An example:

```
I inc, lcnc.elf d3n<sup>9</sup>Iuə—µI.
I illifoc1 (i nc, lcnc.elf d3n<sup>9</sup>Iuə—µI.
I illifoc1 (i nc, lcnc.elf d3n<sup>9</sup>Iuə—µI.
I ight-near.past-atelic-imperfect pr.near pr.other, shoot-anaph_obj.past-unexpected knee-inv.acc-pr.anaph_sub
I tried to fight them, but they shot my knee.
```

4.2 | Historically clausal arguments

Historically clausal arguments (HCAs) are arguments of a sentence that are derived from clausal constructions. They include obliques and conjunctions. HCAs precede V.

An HCA that modifies a verb causes it to be conjugated in the anaphoric subject person.

4.2.1 | Obliques

An oblique expresses a relation between the verb of a sentence or some argument thereof.

An oblique phrase that modifies a verb falls before it. An oblique phrase that modifies either S or O pulls it before the verb as well.

If the argument of the oblique phrase is not an HCA, then it uses a preposition and follows its antecedent (unless it is the main verb). If the argument is an HCA, then the phrase uses a postposition and precedes its antecedent.

Consider the preposition $\langle n \rangle$ in, on, at (location) (from Lek-Tsaro $\langle n \rangle$ (S) is at (0)). The sentence *Ryze* is hiding from me in the tree would be translated as:

```
In fouol nepael (in \p3ze in tree hide-anaph_sub.nonpast-imperfect pr.near.acc Ryze
```

Now say that we want to translate *Ryze is hiding from me in the tree with fruit. With* would be translated as $\langle d\mu \rangle$ (from Lek-Tsaro $\langle d\mu cn \rangle$ hold, carry, which also begets $\langle \mu n \rangle$), but now we have nested obliques, which means we need to use $\langle ln \rangle$ as a postposition:

```
fouo) pn fozə inf nepaei fin paze tree with fruit in-post hide-anaph_sub.nonpast-imperfect pr.near.acc Ryze
```

Deriving a postposition from a preposition is done *after* phonorun reduction. Prepositions that end with a closed phonorun receive $\langle -f \rangle$, and those that end with an open phonorun receive $\langle -z \rangle$.

4.2.2 | Conjunctions

Conjunctions are derived from verbs as well; for instance, <an> and is derived from Lek-Tsaro <acn> join. However, in Middle Rymakonian, conjunctions are infixed:

4.3. CONNECTORS 23

```
\page on \lizal pile fep.c.

Ryze and Tazyl eat-ANAPH_SUB.NONPAST beef
```

(Note that as long as S still precedes O, no case marking is needed.)
Unlike Lek-Tsaro's approach, this approach works well with more complex sentences:

```
\u00fcan \land \land \u00e4rean \
```

An entire conjunctional phrase can be modified by treating the conjunction as a nominal antecedent:

```
nyızı an-lifəi pan<sup>9</sup>0
nyızı an-ləfi pan<sup>9</sup>0
cat and-old rabbit
old cats and rabbits
```

4.3 | Connectors

(This section will refer to section 2.11 of \upber D $\Omega \Omega / (\Omega' \n^{\phi} \ln \text{extensively.})$

Middle Rymakonian uses connectors to express relationships between clauses. In Middle Rymakonian, connectors do not occupy an indexed position in the clause; however, they tend to be placed near items that should receive less emphasis than others. Two connectors cannot occur consecutively unless the number of connectors is more than one plus the number of other words.

A connector is composed of three parts:

- The *type* (see table 4.6) specifies the semantic role of the connector.
- The *sequence identifier* (hereafter *seqid*) disambiguates the use of multiple connectors of the same type within a sentence. This is an arbitrary continuation of the last phonorun of the type.
- The *parity* allows the reuse of seqids within a type. This is $\langle -1 \rangle$ or $\langle -1 \rangle$ if the type ends with a closed phonorun, and $\langle -1 \rangle$ or $\langle -z \rangle$ if it ends with an open phonorun.

Unlike most parts of speech, a complete connector, composed of the three parts above, does not undergo phonorun reduction.

Connectors x and y are part of the same $set\ S$ iff all of the following conditions hold:

- *x* and *y* are identical (i. e. all three parts are the same between *x* and *y*)
- they belong to clauses α and β , respectively (NB: it is possible that $\alpha = \beta$)
- there are no clauses between α and β that has a connector with the same type and seqid but a different parity from x or y

24 CHAPTER 4. VERBS

Table 4.6: Connector types.

Name	Arity	Middle Rymakonian	Explanation		
Ordinary	n	IJ–	Covers both the sequential and		
Analogous	2	ıd–	parallel connectors of Jbl. "For the same reason α is true, β is		
Č			also true." Also used as an "and" without stating any order.		
Subversive	2	ΙΩ-	" α but β ."		
Augmentative	n	oφ ^s –	Later statements apply to a		
			greater extent than earlier		
			statements.		
Explanatory	n	CD-	" θ_1 causes θ_2 causes θ_3 etc."		
Conditional	2	CJ-	"If α , then β ."		

Note that "belonging to the same connector set" is an equivalence relation. Clauses of a connector set are joined by the relation of the connector used therein:

```
Unif l'nde l'ozo yer.

eat-NEAR.PAST fish flower ORDINARY-(e)-0

The fish ate the flower.
```

```
IJEI NCDC (flezc foun).

ORDINARY-(e)-0 dance-NEAR.PAST child tree

Then the child danced around the tree.
```

```
ijei Dilel l'illined. eat-anaph_sub.past ordinary-\langle e \rangle-0 def~fish-acc Then the child ate the fish.
```

```
Delcíl φμοη<sup>φ</sup> ιjez do.
Delcíl φμοη<sup>φ</sup> ιjez do.
imitate-NEAR.PAST-IMP frog ORDINARY-⟨e⟩-1 PR.FAR
At another time, a frog was imitating me. (...)
```

4.4 | Comparatives

```
The comparative is a function cmp : A \times A \times (A \to \mathbb{R}) \times (A \times A \to \{0,1\}) \to \{0,1\}, where cmp(a,b,f,\Box) = f(a) \supset f(b).
```

Consider the following sentences:

Fish eat flowers more than cats. More fish eat flowers than cats.

Semantically, they can be translated to:

cmp(fish, cats,
$$a \mapsto (\# \text{ of flowers eaten by } a), >)$$
 (4.1)

cmp(fish, cats,
$$a \mapsto (\# \text{ of } a \text{ that eat flowers}), >)$$
 (4.2)

The heart of comparatives in Middle Rymakonian is the quadrivalent verb $\langle \Omega \rangle$ a $b f \Rightarrow \lambda$. Thus:

```
DIICI<sup>l</sup> I (DIZDD-J<sup>Q</sup>CN, QDZIN l<sup>l</sup>Inde nyızı yo nef. eat-GENERIC-Q flower-ACC-how_many, CMP-NEAR fish cat PR.ANAPH_OBJ > Fish eat more flowers than cats.
```

```
Dilcl<sup>l</sup> . Ə-J<sup>o</sup>cn (lozo, sozin llinde nyızı µı nef. eat-GENERIC-Q PR.GENERIC-how_many flower, CMP-NEAR fish cat PR.ANAPH_SUB > More fish eat flowers than cats.
```

Note that we place a clause whose argument is the generic pronoun before the comparative clause. From the dozan-clause, we refer to the function using the anaphoric pronoun referring to the position of the return value.

Table 4.7: Comparators in Middle Rymakonian.

	Comparator	
>	neſ	
<	ര ാി	
=	ſen ^φ	
\geq	ſЧıl	
<u>></u> <	DCJ	
\neq	.3J	
\approx	μej	
>>	a ^h e	
«	ΩΙΝ	

4.5 | Ditransitive-like constructions

In English, some verbs such as *give* take two objects: the item being given and the recipient of the item. Because of Middle Rymakonian's heritage, this is translated into a compound statement:

```
(iiφί (i ) lμc) lμcΩen, nebel \μ3zen.
(iφί (i ) lμc) lμcΩen, nebel \μ3zen.
lose-NEAR.PAST PR.NEAR DEF~book, give_to-ANAPH_SUB.PAST Ryze-ACC I gave the book to Ryze.
```

4.6 | Transitivisation

Verbs that are used intransitively (i. e. have no object passed at this time) can be turned into a causative form with the prefix $\langle \phi c - \rangle$:

26 CHAPTER 4. VERBS

fall-NEAR.PAST DEF~coin The coins fell.

I cφl¹cd3 αμεαμεη⁴e.
I φcl¹cd3 αμεαμεη⁴e.
PR.NEAR TRANS-fall-OTHER.PAST DEF~coin I dropped the coins.

Due to historical sound changes:

- An initial fricative or lateral fricative followed by a vowel is voiced.
- An initial $\langle \mu \rangle$ followed by a vowel turns into $\langle z \rangle$.
- A word that started with $\langle n^{\phi} \rangle$ in Lek-Tsaro but $\langle n^{q} \rangle$ in Middle Rymakonian has the initial consonant revert to $\langle n^{\phi} \rangle$.

Note that the word order changes to SVO. (In this case, HCAs fall before S.) In addition, the verb is conjugated for its object, rather than the subject as expected. If the following clause uses an anaphoric subject, it refers to the object of the current clause.

Moreover, the verb does not need to be one that can never take an object. In the above example, ('cricn) means "(S) falls on (O)". However, if the verb in question is taking an object, it cannot be transitivised directly and a more roundabout way is required:

```
fchcl αμεαμεη<sup>4</sup>e μιίι.
fall-NEAR.PAST DEF~coin grass
The coins fell on the grass.

fi cφfch3 αμεαμεη<sup>4</sup>e, fchel μιίβbe.
fi φcfch3 αμεαμεη<sup>4</sup>e, fchel μιίβbe.
PR.NEAR TRANS-fall-OTHER.PAST DEF~coin, fall-ANAPH_SUB.PAST grass-ACC I dropped the coins; they fell on grass.
or: I dropped the coins on grass.
```

4.7 | The copula

The copula $\langle J-\rangle$ (v3) can take a noun as an object, in which case it can mean identity or membership. (Location is expressed with $\langle I-\rangle$ (v1) "be at".) With no object at all, it is used to denote existence.

It can also accept a descriptor, in which case the descriptor is attached before Jcn> in the dictionary form. (This precedes phonorun reduction but forms a compounding boundary.)

5 Descriptors

Descriptors act as adjectives or adverbs. They follow what they modify, and are inflected for the noun class or verbal person of their antecedents.

Modifying nouns is done through compounding, but there are special forms for modifying verbs. These are separate words.

Table 5.1: Descriptor declensions, using the descriptors $\langle l^l e D l^- \rangle$ "large" and $\langle l e l^- \rangle$ "old".

Person	Declined form			
Nouns	J _f epli (J _f epil)	ງອໂເ ()ໂອເ)		
Near	J _f eplih (J _f epihl)	Jəlih (Jləih)		
Far	J _f eplih (J _f epihl)	Jəlih (Jləih)		
Other	J _f epleh (J _f epehl)	(hcell) hclel		
Anaph. Sub.	J _f eplih (J _f epihl)	Jəlih (Jləih)		
Anaph. Obj.	J _f epleh (J _f epehl)	Jeloh (Jleoh)		
Generic	J _f eb(ch (J _f ebch()	Jələh (Jləəh)		

Note that a final $\langle -J \rangle$ or $\langle -Z \rangle$ in a stem becomes whistled in the generic form.

6 Tree mode

As mentioned in section ??, anaphoric referents in a linked-list sentence are sometimes insufficient for expressing complex sentence structures. While the easiest method of resolving this issue is using definite nouns, Middle Rymakonian also provides a mode where sentences are not linked lists of clauses, but rather (binary) trees.

6.1 Activation

Tree mode is enabled automatically when the treeing particle $\langle n^{4}I^{9}\rangle$ is used, and disabled at the end of a sentence.

6.2 | Branch-switching

The aforementioned particle $\langle \Pi^{4}I^{9}\rangle$ marks the beginning of the right branch of the tree. The right branch is ended by the particle $\langle \Pi^{4}I\Delta\rangle$, which causes the next clause to join the left and right branches.

(N. B. $\langle n^{q_1}q \rangle$ and $\langle n^{q_1}\Delta \rangle$ can occur only between clauses. If the particles are represented by left and right brackets, respectively, then the brackets should match.)

6.3 Anaphoric pronouns in joiner clauses

In clauses that join two branches, anaphoric pronouns require marking whether the antecedent occurs in the left predecessor $\langle n^{q_1}q \rangle$ or the right predecessor $\langle n^{q_1}\Delta \rangle$. This is done by marking the pronoun with $\langle -q \rangle$ or $\langle -\Delta \rangle$.

Likewise, verbs can be modified with $\langle -9 \rangle$ or $\langle -\Delta \rangle$ to indicate which branch the subject came from.

6.4 Errors

The following are ungrammatical:

- Using the particle $\langle n^{q_I}\Delta\rangle$ or the branched anaphoric pronouns when tree mode is disabled
- Using the particle $\langle n^{4}I\Delta \rangle$ other than to close a corresponding $\langle n^{4}I^{4}\rangle$
- Using the unbranched anaphoric pronouns in clauses with two predecessors

- Using the branched anaphoric pronouns in clauses with one predecessor
- Starting a new branch with $\langle n^{4}1^{9}\rangle$ when the current branch is empty

6.5 | Example

```
IJh nc, nyin nic. ( nc, ddczel, nyid doold µinn.

Jh nc, nyin nic. ( nc, ddczel, nyid doold µinn.

go-near.past pr.other, branch wait-near.past pr.other, stand_up-anaph_sub.past, join chase-anaph_sub.past-right pr.anaph_sub.acc-left When they arrived, they stood up and chased them way.
```

The resulting tree is shown below:



7 Numerals

Unlike Lek-Tsaro, which used a downright unusual numbering system, Middle Rymakonian uses base 16 consistently.

7.1 | Irregular numerals

Here are the numerals that do not follow the usual pattern, before phonorun reduction:

Table 7.1: Irregular numerals.

base 10	base 16	word
0	0	h3D
1	1	വദി
2]	lij .
3		nc _P Ω
4	Ŋ	۵ _۲ ıμ
5	4	φсј
6	ſ	bye
7	9	ρcj
8	Δ	dən
9	L	ો ^l ed
10	Δ L F 7	b₃n ^φ
11		nə
12	£	le
13	Ħ	J ^o cd
14	Α	yın ⁽⁴ el
15	A	۲ ⁴ el
16	10	.ıµ
17	11	l ^í el
18	1]	l ^l elasl
19	17	l ^l elſıj
33]1	adill
34		DI
119	99	ρl(i
256	100	rul ^l ao
323	1017	J _l ızılın

	base 10	base 16	word
ı	4199	1099	ີງ.ວlə

Note that digits above 9 use capital hacm letters.

7.2 | Double-digit numerals

Numerals of the form $x \cdot 16$ with $1 \le x < 16$ are formed by concatenating $\langle .I \mu \rangle x$. For instance, $128 = 80_{16}$ is written $\langle .I \mu d n \rangle \rightarrow \langle .I \mu a d n \rangle$.

Numerals for integers of the form $x \cdot 16 + y$ with both x and y between 1 and 15, inclusive, and not listed in table 7.1, are formed by concatenating $x < \mu > y < \mu >$ (before PR). For instance, $89 = 59_{16}$ is written $< \varphi c_{J} \mu^{\dagger} e d \mu > \rightarrow < \varphi c_{J} \mu^{\dagger} e d \mu >$.

7.3 | Numerals up to 4096

Numerals for integers of the form $x \cdot 256 + y$ with $0 \le x < 16$ and $0 \le y < 256$, and not listen in table 7.1, are formed by concatenating $y < (|y|^{l}a) > x$. This is done after phonorun reduction. For instance, $2018 = 7E2_{16}$ is written $< |y| |y| |y|^{l} |a| > 2016$.

Note that there is no special case for y = 0; $512 = 200_{16}$ is written $\langle \mu 3D | \Psi | 0 \rangle | 0 \rangle$.

7.4 | Larger numerals

Multiples of 4096 (up to 65536) are written by concatenating $\langle .lel \rangle_x$ before phonorun reduction: $8192 = 2000_{16}$ is written $\langle .lel \rangle_x$. The exception is 4096 itself, which is $\langle .lle \rangle_x$.

Then other numerals up to 65536 are written as a conjunctional phrase: $10000 = 2710_{16}$ is written $\langle .lelij \ an .ipful^a \ acfj \ - 2 \cdot 4096 + 16 + 7 \cdot 256$.

Romanisation

In this text, the romanisation is used only to transcribe names into English. Whenever possible, the hacmisation should be used.

Table 2: The consonants of Middle Rymakonian.

	Bilabial	Dental	Alveolar	Palatal	Velar	Glottal
Nasal	m		n	ñ	ŋ	
Plosive	рb		t d	ťď	k g	
Fricative	fv	þð	S Z	šž	hħ	
(coärticulated)	fh vħ	þh ðħ		fš vž		
(whistled)			ŝ ĉ			
Affricate			ts	tš		
Lateral fricative			ŚŻ			
Approximant			r	j	W	
Lateral approximant			1			
Тар			ř			

Table 3: The vowels of Middle Rymakonian.

	Front	Central	Back
High Mid	i	у	u
Mid	e		0
Low		a	

The digraphs <fh vh þh ðh fš vž ts tš> correspond to coärticulated consonants and affricates. An apostrophe can be placed between the two letters if this is not desired.

Rod signs are represented by the Arabic digits $\langle 1\,2\,3\,4\,5\,6\,7\,8 \rangle$ attached to the end of the verbs they encompass. Proper words are preceded by a backslash $\langle \backslash \rangle$.

 $\langle \eta \rangle$ should be capitalised as $\langle N \rangle$ only if one can depend on the majuscule glyph appearing like an N with a hook. Otherwise, it should be spelled $\langle Ng \rangle$.

A Dictionary

An entry looks like this: Dil- v1 (S) eats (O) From left to right:

- 1. The entry the Middle Rymakonian term listed.
- 2. The part of speech of the corresponding entry:
 - *n* a noun
 - -d- inherently dual
 - -sent sentient noun
 - -nonsent nonsentient noun
 - -meas measure noun
 - -edib edible noun
 - -ined inedible noun
 - -abst abstract noun
 - v1, v2, v3 first-, second- and third- conjugation verbs
 - desc a descriptor
 - pp a preposition
 - -(b) this entry has only neutral vowels but acts as if it had back vowels
 - -(η) this entry came from a word that started with $\langle n^{\phi} \rangle$ and thus certain prefixes will revert it back
- 3. The definition the gloss for the corresponding entry.
 - (S) subject
 - (0) direct object
- 4. If applicable, any special grammatical or semantic notes for this term.
- 5. Optionally, examples of usage.

.cpen nnonsent house

[J ^α
friezc nsent child (young person) frightarrow v1 lose an object fouo) nnonsent tree folip nnonsent bed fole nedib ice folet nedib frost froet froet froet	J ^a i.en nsent magician J ^a iz-v3 (S) creates, makes (O) J ^a cn nabst how many?
r	J ^h – v1 (S) goes toward (O) J ^h Z pp written by
full—v1 (S) fights (O) fuch—v3 (S) falls on (O) fuch—v3 (O) breaks (S) fuzzo nnonsent flower fuel nsent who? full—v1 (S) fights (O) fuch—v3 (O) fuch—v4 (O) fuch—v4 (O) fuch—v4 (O) fuch—v5 (O) fuch—v5 (O) fuch—v5 (O) fuch—v5 (O) fuch—v6 (O) fuch fuch fuch fu	Null number cat ni. – v3 (S) waits for/until (O), temporal verb, if ncd – v3 (S) dances around (O) neb – v1 (S) gives something to (O) neμα – v3 (S) hides from (O) nən – v2 (S) kills (O), (O) dies
In pp in, on, at (location) IIOC nnonsent moon IIdIJ nined stone Ief— desc old	n^{4} n^{4} n^{2} $v_{1}(y)$ (S) thinks, ponders about (O)
) ⁽	a
lucnen nnonsent booklucn-v1 (S) shoots an arrow to (O)	aμen ⁴ e nnonsent coin ac.cl nabst centre, origin acjn pp according to acze nabst light aczelιας nabst moonlight aeo-v3 jump
l'Idjc nedib soup l'Irle nnonsent fish	α ^l α ^l -v3 do what? α ^l 3μə nedib potable water
J- v3 copula Jelle nnonsent land, country Jen- v1 (S) is worried by (O)	α^h

```
D
                                              ddilli nabst ground, floor
                                              drcz-v1 stand, get up
 D3\Pi^{\phi}3 nnonsent rabbit
                                              d\mu pp with (comitative)
 DII - v1 (S) eats (O)
                                              d\nu - v^3 hold, carry, instrumental
 DIN nedib rice
                                           verb
 DIZI nsent person
                                              dol- v2
                                                          (S) chases away (O), (O)
 DCP ndnonsent hand
                                          flees from (S)
 DOI - v2 (S) produces, makes (O)
 DON^{\phi} nnonsent head
 ped- v3 err, miss
                                           Ч
 Deby-v1 (S) resembles (O)
 Del nmeas volume
                                                       (S) sees (O), because
                                              y− ν1
 Dell-v3 (S) imitates (O)
                                           l h
Ω
 \Omega C_{I}^{\dagger} - v_{I}
             (S) hits, strikes (O)
                                              µ3J3 nnonsent cup
 Ω⊃Z- v2
             comparative verb
                                              µ∩ pp with (instrumental)
             (S) sleeps
 ΩeD- v1
                                              Pu pp in front of
                                              µ3D3 nmeas
                                                              day (continuous)
                                              ull nined grass
φ
                                              \mui)– v1 (S) climbs, rises in (O)
 \varphi^{\dagger} cd-v^3 (S) lowers their own (O)
                                              \mu eu - v3 (S) spreads (O)
 \varphi \text{Uil} - v1 (S) raises their own (O)
                                              \mu e \alpha - \nu 3 (S) speaks to (O), (S) asks
 \varphi \nu \ni \cap^{\varphi} nnonsent frog
                                           (0)
                                              pelli nnonsent place
d
                                              pelliuc.cl nnonsent
                                                                         hometown,
                                          home village, (figurative) Rymako
 d3n^{\varphi} indnonsent(b)
                       knee
                                              pold gold
```