⁀ᘂᘈᘀᘁᘉᘊᘋᘌᘍᘎᘏᘐᘑᘒᘓᘔᘕᘖᘗᘘ

Feizet Âg Śothutmašmiek Mîrkšami
A Reference Grammar of the Mîrkšam Language

Edition 0.8

CONTENTS

Iɴᴛʀᴏᴅᴜᴄᴛɪᴏɴ

Mîrkšam is an experimental constructed language, created for the sake of creativity. It is intended to be a language which can be spoken by humans and which could conceivably have been developed by humans. As such, it obeys (almost) all human linguistic universals and falls under the category of naturalistic constructed languages; however, it is a linguistic isolate, not derived from or related to any existing human languages.

In broad typological outline, Mîrkšam is a right-branching nominative-accusative agglutinating human language. What precisely this means in connection with the details of this particular language will be elucidated throughout the text below.

This language project is still incomplete, but as it is the first langauge I've constructed with which I'm somewhat satisfied, I have decided to produce this continually-updated reference grammar from my notes. A culture and history are slowly being developed for the speakers of Mîrkšam alongside their language. This reference grammar primarily outlines the principles behind the normative variety of the central dialect of Mîrkšam, though information about other dialects might appear from time to time. This is a synchronic, not diachronic, grammar; it only provides a view of Mîrkšam at one point in time rather than through time — for now.

This grammar is written rather tersely and densely, with much unexplained linguistic terminology, and so is probably not ideal for learning Mîrkšam; it is, after all, for reference. (I am working on making it more readable, though.) Eventually a more user-friendly introduction to the language should be written up for use alongside it.

All phonological representations in this grammar are given in the international phonetic alphabet. Phonetic representation is marked with square brackets [ ], phonemic representation with slashes / /, transliterated orthographic representation with angle brackets ‹ ›, and translation with double quotes " ".

Śothu Foćukmu
Phonology

Consonants

Mîrkšam has a moderately small inventory of consonant phonemes (17 in total), summarized thus according to place and manner of articulation:

	Place of articulation					
Manner of articulation	Bilabial	Dental	Alveolar	Alveolo-palatal	Palatal	Velar
Nasal plosive	m		n		ɲ	ŋ
Plosive	p		t		c	k
Fricative	ɸ	θ	s	ɕ	ç	x ~ h
Approximant					j	
Labialized approximant						w
Trill/Flap			r			

Mîrkšam may seem slightly atypical in that it observes no voicing distinction (a feature shared by about a third of all languages); nonetheless, both voiceless and voiced consonants occur, in complementary distribution. /m/, /n/, /ɲ/, /ŋ/, /j/, /w/, and /r/ are always voiced; all other consonants are voiceless except when they fall between two other voiced phonemes or when they fall immediately after a nasal plosive, in which case they become voiced. This rule is not applied recursively.

The plosive series contains only the four plosives /p t c k/. All plosives remain unaspirated in all positions in the normative central dialect. No dialect maintains any distinctions of aspiration. Plosives are, however, labialized before rounded vowels: [pʷ tʷ cʷ kʷ].

The nasal plosives correspond to these oral plosives, comprising /m n ɲ ŋ/. Nasal plosives preceding oral plosives, fricatives, or other nasal plosives across syllable boundaries or within the same syllable assimilate to the corresponding place of articulation. Almost always this occurs at syllable boundaries, as, of these combinations, the syllabic structure of Mîrkšam would only permit /mn/, /ɲn/, or /ŋn/ to occur tautosyllabically. Additionally, in all positions /ɲr/ becomes /nr/, but no other nasal is assimilated by /r/. The sequence /tŋ/ is forbidden from occurring within words, and so when it would otherwise appear at syllable boundaries it becomes /tk/.

The set of fricatives is comparatively large, consisting of /ɸ θ s ɕ ç x/. It is also the set that is subject to the most variation: while the normative central dialect realizes it as [ɸ θ s ɕ ç x~h] when unvoiced, in some dialects its realization can vary to [f θ s ʃ ç x~h]. In particular the basilectal use of [f~v] for /ɸ/ has become quite widespread in recent times. Regardless of dialect, /x/ is realized as [x] syllable-finally or when in a consonantal cluster but otherwise realized as [h], disregarding voicing. Additionally, /xç/, wherever it would occur, is reduced to /ç/, and /xɕ/ is reduced to /ɕ/.

Mîrkšam has one rhotic consonant /r/ and two approximants /j w/. The rhotic /r/ typically averages two or three taps, but is generally reduced to [ɾ] when between two vowels. /w/ only occurs before unrounded vowels and shows no significant variation or allophony. /j/ labializes to [ɥ] before rounded vowels.

5

If doubled consonants arise from morphological or other concerns, they are phonologically reduced to single consonants rather than geminated. At syllable boundaries, the remaining sound is grouped with the second syllable. This is the last phonotactic rule to be applied.

Vowels

The inventory of vocalic phonemes is larger than average, with ten present at three levels of height:

	Front		Central		Back	
	Unrounded	Rounded	Unrounded	Rounded	Unrounded	Rounded
High	i	y			ɯ	u
Mid	e	ø			ɤ	o
Low			a	œ		

In careful speech, /a/ and /œ/ are pronounced centralized, as [ä] and [œ̈]. This ideally would result in a symmetric vowel system.

The actual realization of the vowel phonemes can show considerable variation by dialect, but as a rule, the rounding distinctions are preserved. In all dialects the rounded front vowels and the unrounded back vowels are centralized to some extent; thus, the rounded vowels are always produced further back in the mouth than their unrounded counterparts. There is also a tendency for the rounded vowels to be higher than the unrounded. As a result, /y/ and /ø/ to approach [ʏ] and [ɵ], while /ɯ/ becomes [ɯ̈] and /ɤ/ becomes [ʌ̈]. Similarly, most speakers realize /œ/ as [ɐ] or [ɒ̆]. All these trends of centralization are furthered in fast speech and in unstressed positions.

Centralization of /i/, /e/, /u/, /o/, or /a/ is rare; these phonemes are realized more consistently across dialect, whether stressed or unstressed, as [i̠], [e̞], [u̠], [o̞], and [ä], respectively, though they may lose some vowel quality when unstressed.

The vowels' position within the acoustic vowel space is perhaps best shown as a diagram:
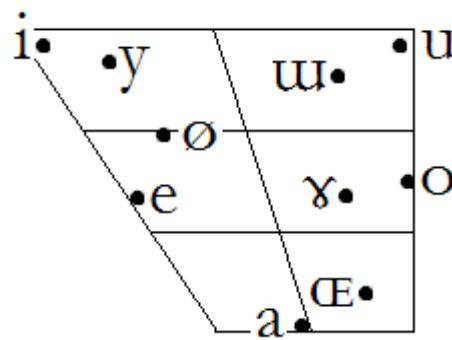
In addition to the above variations in realization, unstressed vowels are in all dialects shorter than stressed vowels.

Vowels are slightly nasalized when preceding nasal plosives.

Diphthongs exist in /w/ and /j/, but /w/ can only occur before unrounded vowels. All vocalic variations still apply to the vocalic elements of diphthongs. Diphthongs do not occur when two vowels from different syllables are adjacent; each of the vowels in that case is separately pronounced, realized with a glottal stop between them. No diphthongs pattern as individual segments.

Mîrkšam has a stem-controlled vowel harmony system that affects all affixes, causing their vowels to change depending on the nearest vowel in the stem word to which they are being attached. The vowel harmony present in the acrolect is very regular. Suffixes' vowels harmonize with the final vowel of the stem while prefixes' vowels harmonize with the stem's initial vowel (regardless of the presence or absence of intervening consonants or even intervening affixes between the vowels of the affix and the stem), changing their roundedness and frontness, but not their height, to match with the appropriate vowel of the stem. As /a/ and /œ/ are central vowels, they do not harmonize in terms of frontness, but only of roundedness.

All vowels in the affix undergo harmonization, and always with the stem's nearest vowel — never with those of affixes already attached to the stem. Vowels outside affixes, on the other hand, do not necessarily undergo harmonization (e.g. in compounding and other operations), and any given root need not contain vowels harmonized with each other. Nonetheless, the vast majority of roots do have harmonized vowels; the absence of vowel harmony in a root almost always indicates either a recent loanword or a compound word, since all vowels were historically harmonized in archaic Mîrkšam. Compound words are treated as separate words with respect to vowel harmony, so that vowels in the separate components of the compund do not harmonize (but in some very old compound words that have effectively ceased to be analyzed as compounds, the components have harmonized).

The presence of the vowel harmony system essentially means that Mîrkšam affixes can have five "underspecified" vowels, which can each take on a number of different forms depending on the nearest vowel of the stem to which affixes containing them are attached. Which underspecified vowel is used determines the possible specific vowels the affix can have in any specific situation.

The reason there are five such vowels in Mîrkšam is that vowels do not harmonize along the dimension of height, and so high vowels always stay high vowels, mid vowels always stay mid vowels, and low vowels always stay low vowels, leaving three possible sets of vowels for any given affix to be capable of having. The mid vowels and the high vowels are then each divided into two sets because the low vowels can only harmonize them along the roundness dimension, leaving different results for front and back vowels at the same height. Since front and back vowels thus harmonize differently when adjoining a low stem vowel, they must be represented by two separate underspecified vowels. These five underspecified vowels can be denoted I (high front vowel), U (high back vowel), E (mid front vowel), O (mid back vowel), and A (low vowel).

The specific forms these vowels take are shown below.

Underspecified (affix) vowel	Nearest stem vowel	Underspecified vowel becomes...
I	/i/, /e/, /a/	/i/
	/y/, /ø/, /œ/	/y/
	/u/, /o/	/u/
	/ɯ/, /ɤ/	/ɯ/
U	/i/, /e/	/i/
	/y/, /ø/	/y/
	/u/, /o/, /œ/	/u/
	/ɯ/, /ɤ/, /a/	/ɯ/
E	/i/, /e/, /a/	/e/
	/y/, /ø/, /œ/	/ø/
	/u/, /o/	/o/
	/ɯ/, /ɤ/	/ɤ/
O	/i/, /e/	/e/
	/y/, /ø/	/ø/
	/u/, /o/, /œ/	/o/
	/ɯ/, /ɤ/, /a/	/ɤ/
A	/i/, /e/, /a/, /ɯ/, /ɤ/	/a/
	/y/, /ø/, /œ/, /u/, /o/	/œ/

For alphabetization purposes, the underspecified vowels I, U, E, O, A are typically treated as the vowels /i/, /u/, /e/, /o/, /a/. The exception is when the affix with an underspecified vowel is etymologically derived from some stem which has a specified vowel in that position; in that case, the original specified vowel is used instead. Thus, any time one encounters ⟨i⟩, ⟨u⟩, ⟨e⟩, ⟨o⟩, or ⟨a⟩ within an unattached affix, one can assume it actually represents the corresponding underspecified vowel, and in the rare instances that ⟨î⟩, ⟨û⟩, ⟨ê⟩, ⟨ô⟩, or ⟨â⟩ occur in an unattached affix, they similarly represent the underspecified vowels I, U, E, O, and A.

Syllables

Syllables in Mîrkšam maintain the sonority sequencing principle, meaning that phonemes farther from a syllable's vowel must be lower than or on the same level of the sonority hierarchy as closer ones. This hierarchy primarily ranks sounds by their relative loudness, so that louder sounds are higher on the hierarchy than softer ones. In particular, the sonority hierarchy for Mîrkšam is thus, from highest (loudest) to lowest (quietest):

/a œ e ø ɤ o i y ɯ u/
/j w ɾ/
/n/
/m ɲ ŋ/
/ɸ θ ɕ ç x/
/s/
/t/
/p c k/

Syllables are limited to a (CA)V(A), (CA)V(C), or (C)(C)V(A)(C) structure, where V represents any vowel, C represents any consonant except the phonemes /ɾ j w/, A represents any of the phonemes /ɾ j w/, and parentheses represent optional elements. The only exception to this occurs when a nasal precedes a fricative across a syllable boundary, in which case an oral plosive at the fricative's place of articulation is intercalated at the end of the first syllable regardless of structural constraints (/θ/ and /ɕ/ in this case are treated as if they were alveolar). In most dialects the initial nasal is consequently dropped in such a case, but the prestige dialect retains it in careful speech, and it is reflected in the orthography.

Lexical boundaries

Despite their operation across morphemic and syllabic boundaries, most phonological rules do not apply across lexical boundaries in the acrolect. In basilects, however, it is quite commonplace for them to do so. Beyond this inhibition of phonological rules, spoken Mîrkšam has no clear breaks between words.

Stress

Mîrkšam syllables can be divided into weak and strong syllables depending on their impact on the stress of a word. Primary stress in Mîrkšam is usually found on the penultimate syllable, but if and only if the penultimate syllable is weak and the antepenultimate syllable is strong, it is found on the antepenultimate syllable instead. Which syllables are strong and which are weak is not determined by phonological considerations but by arbitrary lexical ones. The vast majority of all syllables are strong, but certain morphemes may be or contain weak syllables. Common such morphemes include ‹zo›-, ‹ših›-, ‹śi›-, ‹pzi›, ‹re›-, and ‹pfi›-, but there is no general way to determine whether any given morpheme or syllable thereof is weak; the stress pattern must be learned with the lexis.

More technically, primary stress has a stress window of two syllables, which are penultimate and antepenultimate, making the primary stress bounded, right-edged, and nonperipheral. Inside the stress window, the basic pattern is iambic, but considerations of syllable weight can override this. Thus, primary stress can be represented by four possible combinations of strong and weak syllables inside the stress window:

(S **S**) σ]
(W **S**) σ]
(**S** W) σ]
(W **W**) σ]

where W is a weak syllable, S is a strong syllable, σ is any syllable, parentheses mark the stress window, a bracket marks the end of the word, and boldface marks the stress.

Secondary stress follows an entirely different and simple system: it always falls on the first syllable of a word, except where this position is already affected by primary stress. Secondary stress is not iterative,

so there is only one (or no) secondary stress in any given word. Mîrkšam is considered to have polar stress, since its primary and secondary stress start at opposite edges of words.

Stressed vowels are louder and longer than unstressed vowels, in addition to the phonological variation observed in the sections above.

Loanwords

Loanwords are mostly immediately adapted to the phonotactic constraints of Mîrkšam, though recent loanwords may retain an extra phoneme at the end of a syllable if such a phoneme would not violate the sonority sequencing principle; they may also retain /w/ in positions where it would not natively occur. Loanwords may additionally retain unharmonized vowels, a feature generally not found in native vocabulary.

The Abugida

Mîrkšam employs an alphasyllabic writing system (an abugida), which means that it is not quite an alphabet and not quite a syllabary. Rather, it uses basic graphemes to represent consonants, then adds diacritics that represent vowels and semivowels to form characters that represent syllables. There are a total of 27 character components which combine to make up the Mîrkšam abugida.

The writing can run in several directions. In order from most common to least, these are: in columns from top to bottom and left to right; in horizontally-rotated columns from left to right and bottom to top; or in rows from left to right and top to bottom, with each syllable occupying a separate block of space. Due to font limitations, the second of these will be used throughout this grammar. The abugida's components are as shown in the table below. Along with these are presented a number of unambiguous transliteration schemes (a more readable scheme might be made at the cost of introducing ambiguity):

Character component	Phoneme (IPA)	Transliteration schemata				
		Standard Latin	pseudo-Germanic	English-readable	English-readable B	Cyrillic
ſ	ɸ	f	f	f, v	f, v	ф
ｔ	s	s	s	s, z	s, z	с
？	ç	š	ch	sch, zch	sch, zch	ш
？	x	h	kh	kh, gh	kh, gh	х
？	θ	z	þ (th)	th, dh	th, dh	ө
ſ	ɕ	ś	sh	sh, zh	sh, zh	щ
ʃ	p	p	p	p, b	p, b	п
ｔ	t	t	t	t, d	t, d	т
？	c	ć (c)	c	q, j	q, j	ч
？	k	k	k	k, g	k, g	к
？	m	m	m	m	m	м
？	n	n	n	n	n	н
？	ɲ	ń	n' (ny)	nh	nh	њ
？	ŋ	g (ǧ)	ng	ng	ng	ӈ
'	i	i	i	i	i	и
？	ɯ	û	ï	uh	u	ы
‿	e	e	e	e	e	е	‿ : є
？	ɣ	ô	ë	oh	o	ъ

⟍	a	a	a	a	a	a	⟍: я
ʾ	y	î	ü	ih	' … i	v	
ʊ	u	u	u	u	' … u	y	ʊ: ю
⥾	ø	ê	ö	eh	' … e	ö	
⟊	o	o	o	o	' … o	o	
ʋ	œ	â	ä	ah	' … a	æ	
·	ɾ	ɾ	ɾ	ɾ	ɾ	р	
ˆ	j	j	j (y)	y	y	й (ı)	
˘	w	w	w	w	w	в	

Provided are examples of a passage in the native script, in the IPA, and in several different transliteration schemata, in the same order as presented in the table above:

ꕔꕯꕜꕲꖁꖘꕲꕱꕄꕂꕉꖋꕹꕌꖊꕊꖌꕍꕲꕎꕘꕈꖍꕁꕸꕛꖎꕦꕲꕮꕘꕬꕧꕀꕢꕇꕖ

['cändän ˌkθäˈbäpθi ˈçrä̰ɥǔk ˈö̆nyn ˌmuɾɣ̊ð̥o̰ʔɣβmɥjk ˈkʷɤdʷɣ̊ sjä ˈmuðo̰ɡ̊ɥ̆m uɯrt ɸe̯̥s]
/cantan kθapapθi çracuɯk œnyn murøθoyɸmøjk kytø sja muθokjœm ɯrt ɸes/
Ćantan kzapapzi šraćûk ânîn murêzoîfmêjk kîtê sja muzokjâm ûrt fes,.
Cantan kþapapþi chracïk änün muröþoüfmöjk kütö sja muþokjäm ïrt fes,.
Qandan kthabapthi schrajuhk ahnihn murehdhoihvmehyk kihdeh sya mudhogyahm uhrt fes,.
Qandan kthabapthi schrajuk 'anin 'muredhoivmeyk 'kide sya 'mudhogyam urt fes,.
Чантан көапапθи шрачык æнвн мурöθовфмöïк квтö ся муθокıæм ырт фес,.

Names of characters and components

Each character or character component can be referred to by a noun with the same pronunciation as that character or component, with the addition of a very brief mid-central vowel if necessary for pronunciation: thus, to refer to ⟨⟩, one would say /ɸə/ and write ⟨f⟩, and to refer to ⥾, one would say /ɸe/ and write ⟨fe⟩; each of these could then receive nominal affixes. However, the regular plural marking is not used, and instead plurals of characters are always marked with a prefixed î-.

Collation order

The components of the abugida are collated in the order displayed in the table above, i.e.

f s š h z ś p t c k m n ń g i û e ô a î u ê o â r j w.

Word separators (and other punctuation) are ignored in collation. Phonemes that are usually absent, but present when necessary to fit with phonotactic constraints, are considered present for the sake of collation. Numerals are collated as if they were written out in full.

Punctuation

Syntactic punctuation is sparse and generally only marks out word boundaries, the ends of prepositional phrases, and sentence boundaries. Semantic punctuation can optionally be used to indicate

intonation and implied meaning. Some semantic punctuation is simply attached to syntactic punctuation, particularly to the sentence separator. Voice quality punctuation, also optional, is used to show the nature of the speaker's voice; unlike other punctuation, this runs alongside columns or rows of text rather than interrupting it, generally taking a place to the right of columns or immediately above rows. This punctuation can be extended indefinitely to specifically highlight a stretch of juxtaposed text. Breathing punctuation, now largely obsolete, was in the past used to indicate to the reader where to pause for breath, with the assumption that the document in question would be read aloud.

Punctuation in Mîrkšam is not generally followed or preceded by whitespace, though this is inserted in transliteration for the sake of readability. The following table displays the various punctuation marks and the transliteration that will be used here to represent them whenever punctuation is relevant:

Punctuation	Function	Transliteration
Syntactic punctuation (required for grammaticality)		
ʿ	word separator	[*space*]
˒	end of prepositional phrase	,
∫	sentence separator (and, optionally, ender and beginner)	.
∘⟶	abrupt syntactic break (similar to dash)	—
Semantic punctuation (entirely optional)		
⌒	following word questioned	?
∫	following sentence questioned	? [*moved to end of sentence*]
⨜	following question rhetorical	?. [*moved to end of sentence*]
⸜	following word sarcastic (or, in some cases, effectively scare-quoted)	~
�integral	following sentence sarcastic	~ [*moved to end of sentence*]
ƒ	following sentence exclamatory	! [*moved to end of sentence*]
Voice quality punctuation (entirely optional; runs alongside and parallel to rows and columns)		
⌒⟶	juxtaposed text undergoing decrescendo	> >
⟶⌒	juxtaposed text undergoing crescendo	< <
⌒⌒	juxtaposed text whispered	# #
⌣⌣	juxtaposed text shouted	* *
⊤⟶⊤	juxtaposed text mouthed (very rare)	- -
Breathing punctuation (optional and largely obsolete)		
∘	breath/short pause	:
⌒	long pause	;
∘⟶	pause according to length of line	:---
Abbreviation punctuation (optional but common in cases of ambiguity)		
–	sounds elided where mark is found	' *or* - *or* |

Transcription

The transcription of the language in its native orthography incorporates most phonological alterations, such as nasal assimilation, plosive intercalation, reduction of doubled consonants, and vowel harmony, but it does not show most features that are never distinctive, such as voicing, labialization, aspiration, stress, vowel centralization, [x~h] allophony, or vowel nasalization. Thus, the orthography is not quite either phonemic or phonetic. The transliterations in this grammar will reflect the native orthography using the "Standard Latin" scheme above.

Writing loanwords

Foreign loanwords are generally respelt to maintain a pronunciation as similar as possible to the original rather than attempting to maintain any sort of transliterated spelling. Thus foreign /f v/ become ⟨f⟩, /ʃ ʒ/ become ⟨ś⟩, /ə/ becomes ⟨ô⟩, /ɪ/ becomes ⟨î⟩, /ʊ/ becomes ⟨û⟩, and so forth. Laterals, which are entirely absent in Mîrkšam, tend to become ⟨r⟩ (or, less commonly, ⟨j⟩). Complicated intial or final consonant clusters may be simplified or undergo metathesis until they form permitted syllabic structures.

Abbreviations

Abbreviations in Mîrkšam are usually formed by concatenating the last syllables of the constituent word or words into one new word. The vowels of abbreviations do not harmonize (excepting only in some very archaic abbreviations, which are in any case widely perceived as independent lexical items). Orthographically, the elided sounds are represented with an abbreviation mark (–, transliterated by an apostrophe, or by a pipe or hyphen if the apostrophe is used for other purposes) that occurs in every position where elision has taken place; the characters that would ordinarily represent the elided sounds are then not written. Sounds undergo assimilation and other phonological processes in abbreviations, but in contrast to the situation in other words, these are not reflected orthographically. For example, ⟨feizet âg śothutmašimek mîrkšami⟩ might be abbreviated as ⟨zet'âg'ek'mi⟩ and pronounced as if it were ⟨zetâgekmi⟩: [ˌθe̥dʷɓ̥ŋˈe̥gmi].

Ptet Ćîrmî
Verbal Morphology

Mîrkšam is a highly agglutinative language, making great use of monoexponential affixes (affixes with one category per formative) with clearly-delimited meanings to form words. Verbs are consequently conjugated by the addition of various prefixes to a verbal stem. The stem itself can be a single morpheme, i.e. a root, or can consist of a root with the addition of derivational affixes. The stem is considered the citation form for all Mîrkšam verbs.

In Mîrkšam, there are no fully non-finite verbs, as all verbs carry tense and aspect information, though optionally for verbs in the participial and infinitive moods. Mîrkšam verbs are conjugated to agree with their subjects in person (exclusive first, inclusive first, second, present but not addressed, proximate, obviate, or hypothetical) and number (singulative, transnumeral, or plural), but verbs in the participial mood are not conjugated to agree with the nouns they modify.

Verbs mark three tenses (past, present, and future), four aspects (perfective, imperfective, inchoative, and cessative), and six moods (indicative, imperative, subjunctive, negative, participial, and infinitive). The prefixes of a verb are always attached to result in a linear order

person—number—mood—tense—aspect—stem.

All prefixes are, of course, subject to vowel harmony (see "Vowel Harmony" above), and so all the vowels listed in the prefixes below actually represent their underspecified counterparts. The verbal conjugation system is very regular.

Aspects

There are four morphologically-marked aspects in Mîrkšam: the imperfective, the perfective, the inchoative, and the cessative. The imperfective aspect views a given event, action, or state of being as having an internal structure, or as being ongoing or habitual at the time specified by the tense. The perfective aspect views a situation as a whole, with a defined starting and ending point, and often views the situation as completed (but not necessarily in the past). The inchoative aspect views an event, action, or state of being as beginning. The cessative aspect views it as ending.

Aspect prefixes are attached closest to the verbal stem. The imperfective aspect, unlike the others, adds no affix to the stem (or, rather, adds a null affix); consequently, a verb with no aspect marking is in the imperfective aspect. The prefixes for aspect are as follows:

Aspect	Abbreviation	Prefix
Perfective	PFV	if-
Imperfective	IPFV	∅-
Inchoative	INCH	mja-
Cessative	CESS	kof-

Tenses

The tense system is quite simple, with a past, a present, and a future tense marked by prefixes added after the aspect prefix. The present tense is unmarked and, in addition to denoting a situation as

occuring in the present, is also used for general activity at an unspecified time. The relevant prefixes are thus:

Tense	Abbreviation	Prefix
Past	PST	zo-
Present	PRS	∅-
Future	FUT	ših-

Moods

Mîrkšam has six moods, two of which convert the verb to a different lexical category. The indicative mood is used for statements when the situation described is a perceived fact or near-certainty, and it has a null affix.

The imperative mood is used to indicate that the speaker is appealing to the addressee to make the expressed situation a reality; it need not be used with the second person. Thus, the imperative mood actually has an additional function as a hortative mood depending upon person and context, meaning that the addressee need not necessarily be in control over the realization of the desired situation.

The subjunctive mood is used to express unreal or hypothetical situations.

The negative mood indicates that the situation is explicitly not so, negating the verb; it is the sole mood that may accompany other moods to negate the resulting verb, in which case its prefix is appended linearly before the other modal prefix.

The participial mood effectively converts the verb into an adjective, making it modify a specific noun, which is then represented as undergoing the event, action, or state of being described by the verb. A verb in the participial mood is not conjugated to agree with the noun it modifies (or any other noun) in person or number; the relevant affixes are simply absent.

The infinitive mood, meanwhile, coverts the verb into a verbal noun that then refers to the event, action, or state of being represented by the verb. In this way it functions as an rough equivalent to the English infinitive or gerund. However, both the participial and the infinitive form are still conjugated for tense and aspect, though the infinitive form often uses the imperfective present to refer to the action represented by the verb in general without specific temporal information. The infinitive also still may have person and number agreement, though it tends to use the transnumeral hypothetical to present no specific information. Thus, contrary to its conventional name, it is not fully non-finite.

The mood prefixes are as follows:

Mood	Abbreviation	Prefix
Indicative	IND	∅-
Imperative	IMP	ej-
Subjunctive	SJV	gaj-
Negative	NEG	kzu-
Participial	PCP	shi-
Infinitive	INF	kma-

Number

The verb agrees with the subject in number and person. Information about number in general will be found in the "Nominal Morphology" section below. The prefixes for number for the verbs are as follows:

Number	Abbreviation	Prefix
Singulative	SGV	(e)re-[1]
Transnumeral	TRN	Ø-
Plural	PL	śi-

Person

The verb agrees with the subject in number and person; Mîrkšam verbs, through agreement, can force the subject into some person if the subject itself does not mark it: thus, e.g., if a verb is first-person, its subject will be assumed to be the speaker even if it is not a first-person pronoun. Mîrkšam has a total of seven persons, marked on the verb for subjects of verb phrases and further marked lexically for personal pronouns.

There are two first persons, each of which refer to the speaker (and, when plural, to associated people; see the section on associative plurals under "Determiners" below). The difference between them is that one is an exclusive one, which indicates that the addressee is not part of the referent set, while the other is an inclusive one, which indicates the opposite.

The second person is used to refer to the addressee. The "third person" refers to someone or something that is present but not being directly addressed; it does not correspond to the traditional notion of third person, and is only called such by convention. The proximate person refers to something (that is neither the speaker nor the addressee nor present) relatively topical or salient, whereas the obviate person refers to things less salient.

The hypothetical person refers to generic or indefinite referents, and is also used for the subjects of impersonal verbs (as will be described below).

The prefixes marking the grammatical person of the subject are as follows:

Person	Abbreviation	Prefix
Exclusive first	EX	a-
Inclusive first	IN	ehu-
Second	2	u-
Present but not addressed	3	ća-
Proximate	PROX	mu-
Obviate	OBV	mo-
Hypothetical	HP	Ø-

---

1 Unless required by phonotactic constraints, the first underspecified vowel E is absent from this affix.

The e- imperative

In addition to the imperative mood formed by prefixing ⟨ej⟩- to the verb along with other prefixes, a more direct or urgent imperative with an implicit second person can be formed by prefixing ⟨e⟩- to the verb root with no other conjugational prefixes.

Transitivity

Mîrkšam verbs are largely transitive, with nontransitive exceptions including most stative verbs. All verbs that are transitive in Mîrkšam are also ambitransitive; the omission of any number of objects is equivalent to placing "something unspecified" in their position and implies that the object is irrelevant or unimportant. The omission of all objects along with an imperfective verb prefix often implies a habitual aspect of the verb, though this aspect is not morphologically marked.

Impersonal verbs

Impersonal verbs are typically conjugated in the hypothetical person and transnumeral number; no subject need be given, as Mîrkšam is a null-subject language (see the section on Personal pronouns below). There is no passive voice in Mîrkšam, as one instead uses an impersonal verb to achieve the same meaning. In this case the verb need not be conjugated as transnumeral if the patient was acted upon by a more definite number of unspecified agents.

Adjectives

As a lexical category, adjectives in Mîrkšam do not properly exist. Instead, there are a wide variety of stative verbs which can be placed in the participial mood to modify nouns or used as sentential verbs to function instead of predicate adjectives; all words that function like adjectives are either such verbs, genitive nouns, determiners, or more complicated constructions.

Conditionality

Conditionality is not expressed in Mîrkšam by a separate conditional mood; instead, conditional sentences typically have an independent clause whose verb uses the indicative mood connected by a conjunction with a subordinate or independent clause whose verb uses the subjunctive mood.

Full conditional sentences expressing factual or logical implications are constructed differently from those expressing the consequences of hypothetical situations. The former do not follow the typical patterns for other conditional sentences and intead consist of two independent clauses in the indicative mood connected by the conjunction ⟨śa⟩. The latter, on the other hand, have one clause in subjunctive mood expressing the condition (the protasis) and another clause in indicative mood expressing the consequence (the apodosis). If the protasis precedes the apodosis, the conjunction ⟨hjan⟩ is used to link them; if the order is reversed, the conjunction ⟨ńug⟩ is used instead.

Tense anaphora

In place of the ordinary series of conjugation affixes, the Mîrkšam verb can take the prefix ⟨ćńe⟩-, which functions like an anaphor referring to the conjugation affixes of the previous verb.

Mîrkšam nouns display the agglutinative nature of the language just as its verbs and other lexical categories do, and so they are marked via affixation. They are marked for one of three numbers (singulative, transnumeral, or plural) and one of six cases (nominative, accusative, dative, genitive, vocative, or instrumental). The nominative transnumeral (which is identical to the stem) is the citation form of all nouns. Nouns do not have gender or animacy distinctions; there are, in fact, no noun classes at all, so all nouns are declined in the same manner, using the same set of affixes.

Number

Nouns can have one of three numbers. The transnumeral is the default, unmarked number, which indicates neither singularity nor plurality; rather, the number remains ambiguous. The transnumeral form is used when number is unimportant or the referent is abstract or collective.

Because number can remain unmarked and transnumeral, the case where there is only one instance of something and this is marked is referred to as singulative rather than singular. It is marked by a prefixed ⟨t⟩- where permitted by phonotactic constraints; where this is not permitted, the prefix instead becomes ⟨te⟩-. In the case of the inclusive first person, the singulative affix to a noun marks a dual form instead, containing the speaker and the addressee (but viewing them as one collective whole).

If there are multiple instances of something and this needs be marked, the plural number is used. The plural is not usually formed via prefixation but rather via a change in the first vowel of the stem: if it is a nonclose vowel, it is raised; if it is a close back vowel, it is fronted; if it is /i/, it becomes /y/; if it is /y/, the underspecified vowel I is prefixed to the stem. Because the first vowel is /y/, however, this underspecified vowel in ordinary circumstances always harmonizes to another /y/. For the purposes of raising, /a/ and /œ/ are here considered front vowels, despite their phonological position slightly back of center. These changes are summarized in the following table.

First vowel of stem	First vowel of plural	Prefix of plural
i	î	∅-
î	î	î-
û	i	∅-
u	î	∅-
e	i	∅-
ê	î	∅-
ô	û	∅-
o	u	∅-
a	e	∅-
â	ê	∅-

Mîrkšam additionally has an associative plural, but as it is marked by a determiner rather than by a nominal affix, it will be discussed in the section on "Determiners" below.

Case

Case is unique in the Mîrkšam grammar in that it is marked via suffixation rather than the prefixation typical of most other marking. There are a total of six cases. Even when word order would suffice to determine a noun's case, it is always overtly case-marked.

Mîrkšam is a nominative-accusative language, meaning that subjects of transitive verbs and those of transitive verbs are coded alike, but differently from objects of transitive verbs. For Mîrkšam, this morphologically means that a single nominative case is used to mark the subject of a verb, whether transitive or intransitive. It is a zero-case, marked only by a null suffix. The nominative is then distinguished from the accusative case, which marks the direct objects of transitive verbs.

The dative case is used for the objects of prepositional phrases and for indirect objects of verbs. It is also used as a dativus finali, indicating the action is done for the purpose or sake of the marked noun; as a dativus commodi and incommodi, indicating the action is done for the benefit or harm of the (typically animate) marked noun; as a dativus possessivus, indicating possession of the subject by the marked noun when used with a copula; and as a dativus auctoris, indicating perception by the marked noun.

The genitive case is used to indicate that the marked noun is modifying another noun (which typically precedes it); often this indicates it is the possessor of the other noun, but this need not be true. The vocative case is used to specify direct address, i.e. when directly calling out to the marked noun. The instrumental case is used to indicate that the noun is the means by which something was done, making it adverbial. The instrumental case never has a comitative function. The suffixes used to mark these cases are listed below.

Case	Abbreviation	Suffix
Nominative	NOM	-∅
Accusative	ACC	-uk
Dative	DAT	-ok
Genitive	GEN	-mi
Vocative	VOC	-e
Instrumental	INS	-ah

Definiteness

Definiteness of nouns is not marked by separate articles in Mîrkšam; in fact, it is not marked at all except optionally by demonstratives. Indefiniteness is also not marked, though it can optionally be marked for certain pro-forms (see the section on Definiteness under "Pro-forms" below).

Reduplication

When reduplication occurs in nouns, it occurs at the left edge of the relevant morpheme; see the below section on Nominal reduplication under "Derivational Morphology" for details on the resulting derivation.

PRO-FORMS

Pronouns in Mîrkšam closely parallel nouns in their morphology, being marked for number and case via affixation and vowel changes, and using the same affixes and alterations as ordinary nouns. Indeed, pro-forms in general closely parallel the lexical categories they can take the place of, with the same rules of distribution and affixation, though with a more limited scope for derivation.

Personal pronouns

Since Mîrkšam is a null subject language, personal pronouns can be (and usually are) omitted when they are the subject of a sentence; in this case, the subject is apparent from the person and number marking on the verb, which function together as an affix corresponding to a given personal pronoun. The table below gives the personal pronouns together with their corresponding verbal affixes.

		NOM	ACC	DAT	GEN	VOC	INS	verb affix
EX	SGV	tjah	tjahûk	tjahôk	tjahmi	tjahe	tjahah	are-
	TRN	fjah	fjahûk	fjahôk	fjahmi	fjahe	fjahah	a-
	PL	fjeh	fjehik	fjehek	fjehmi	fjehe	fjehah	aśi-
IN	DU	thaš	thašûk	thašôk	thašmi	thaše	thašah	ehure-
	TRN	haš	hašûk	hašôk	hašmi	haše	hašah	ehu-
	PL	heš	hešik	hešek	hešmi	heše	hešah	ehuśi-
2	SGV	tnûr	tnûrûk	tnûrôk	tnûrmû	tnûrô	tnûrah	ure-
	TRN	nûr	nûrûk	nûrôk	nûrmû	nûrô	nûrah	u-
	PL	nir	nirik	nirek	nirmi	nire	nirah	uśi-
3	SGV	tśoh	tśohuk	tśohok	tśohmu	tśoho	tśohâh	ćare-
	TRN	śoh	śohuk	śohok	śohmu	śoho	śohâh	ća-
	PL	śuh	śuhuk	śuhok	śuhmu	śuho	śuhâh	ćaśi-
PROX	SGV	thun	thunuk	thunok	thumu	thuno	thunâh	mure-
	TRN	hun	hunuk	hunok	humu	huno	hunâh	mu-
	PL	hîn	hînîk	hînêk	hîmî	hînê	hînâh	muśi-
OBV	SGV	tohnoj	tohnojuk	tohnojok	tohnojmu	tohnojo	tohnojâh	more-
	TRN	hnoj	hnojuk	hnojok	hnojmu	hnojo	hnojâh	mo-
	PL	hnuj	hnujuk	hnujok	hnujmu	hnujo	hnujâh	mośi-
HP	SGV	tepzi	tepziik	tepziek	tepzimi	tepzie	tepziah	ere-
	TRN	pzi	pziik	pziek	pzimi	pzie	pziah	∅-
	PL	pzî	pzîîk	pzîêk	pzîmî	pzîê	pzîâh	śi-

Intensive pronoun

Mîrkšam has an intensive pronoun, ‹ńim›, which is declined in much the same way as the personal pronouns, though of course without a corresponding verbal affix. It usually immediately follows its referent, but in literary and archaic writings it and its referent can be found in any relative position in which two nouns in a compound noun could be found. The case and number marking on the intensive pronoun is always identical to that on the referent.

	NOM	ACC	DAT	GEN	VOC	INS
SGV	tńim	tńimik	tńimek	tńimi	tńime	tńimah
TRN	ńim	ńimik	ńimek	ńimi	ńime	ńimah
PL	ńîm	ńîmîk	ńîmêk	ńîmî	ńîmê	ńîmâh

Reflexive pronoun

The reflexive pronoun is formed by declining a hypothetical pronoun **‹shej› using a subset of the same affixes used with nouns and personal pronouns. The form **‹shej› itself is only hypothetical because the reflexive pronoun cannot be used as the subject of a sentence, and so cannot be found in the nominative case, in acrolectal Mîrkšam. It does, however, appear in some basilects with a meaning encompassing the semantic ranges of both ‹hun›, the proximate-person pronoun, and ‹hnoj›, the obviate-person pronoun, making it a sort of generic third-person pronoun in these dialects. This is strongly condemned by speakers of the acrolect and by literary tradition. The reflexive pronoun is only marked for case and not number or person, as the number and person are assumed to be the same as that of the referent.

ACC	DAT	GEN	VOC	INS
shejtik	shejtek	shejtmi	shejte	shejtah

Demonstrative pronouns

There are two demonstrative pronouns in Mîrkšam. One, ‹hnu› "this", is proximate and refers to something topical, salient, or nearby. The other, ‹hno› "that", is obviate and refers to something not salient or relatively distant. These forms are different from those of the demonstrative determiners, but evidently related. Note, on the other hand, that in Mîrkšam the demonstrative pronouns coincide with the proximate and obviate personal pronouns.

Interrogative pronoun

The interrogative pronoun, ‹fes› "who, what", is used in questions to ask the addressee to specify who or what is meant; Mîrkšam does not make grammatical animacy distinctions, so English "who" and "what" are both represented by the same Mîrkšam word.

Pro-verbs

Mîrkšam has a series of pro-verbs that can take the place of the verb. They are conjugated just like ordinary verbs, with the same full set of affixes. The general pro-verb is ‹ćêr› "act, do"; there are additionally a proximate form ‹szimje› "do this, do so" and an obviate form ‹kôsŝô› "do that". Finally, there is an interrogative pro-verb, ‹zim› "do what", used to ask what action or state is meant.

Pro-adverbs

There are a number of pro-adverbs in Mîrkšam, which can be organized neatly along two axes. One axis specifies the type of adverb, e.g. adverbs of place, manner, time, etc., and the other classifies them according to specification of which place, manner, time, etc. is meant. Taken together, they encompass the following:

		Demonstrative			Quantified	
	Interrogative	Proximate	Obviate	Indefinite	No	Every
Place	hre	hru	hro	paśôh	kzapaśôh	sfôpaśôh
Time	kît	kîtî	kîtê	pasfir	kzapasfir	sfepasfir
Place and time	grât	gjun	groj	pâkên	kzâpâkên	sfêpâkên
Manner	sfô	sfun	sfoj	pasfôm	kzapasfôm	sfôpasfôm
Purpose	ćurh	ćurhju	ćurhno	pahwes	kzapahwes	sfepahwes
Cause	ńa	ńun	ńoj	pańam	kzapańam	sfepańam
Source	îzrêj	îzrî	îzrê	—	—	—
Goal	estitrej	estitri	estitre	—	—	—
Beginning	pêskît	pêskîtík	pêskîtêk	—	—	—
Ending	perkît	perkîtík	perkîtêk	—	—	—

Here "source" and "goal" indicate respectively that the pro-adverb modifies a verb to refer to action from some place and to some place, whereas "beginning" and "ending" are analogous for time.

Quantification

Many pro-forms can take quantifying prefixes to specify quantity (e.g. none, all, etc.); these are generally the same quantifying prefixes taken by nouns, and are therefore dealt with in the section on Quantifying prefixes under "Derivational Morphology" below.

Definiteness

Pronouns and other pro-forms ordinarily have indeterminate definiteness, just like nouns, but a small set of them can be marked as specifically indefinite, denoting them as uncertain or unspecified, by attaching the prefix ‹pa›-. This same prefix also serves to convert certain nouns into indefinite pro-adverbs, e.g. ‹sfir› "(a specific) time" → ‹pasfir› "sometime" (*not* "a time" or "some time").

DETERMINERS

Determiners in Mîrkšam follow the nouns they modify, but they do not agree with them in number, person, or case, and indeed they take very few affixes in general.

Demonstrative determiners

There are two demonstrative determiners in Mîrkšam. One, ‹hun› "this", is proximate and specifies something topical, salient, or nearby. The other, ‹hnoj› "that", is obviate and specifies something not salient or relatively distant. These forms are different from those of the demonstrative pronouns, but evidently related.

Interrogative determiner

The interrogative determiner, ‹kêš› "which", is used in questions to ask the addressee to specify which one out of the set represented by the modified noun is meant.

Table of correlatives

Much of the information in this chapter and the chapter on Pro-forms above can be conveniently summarized in the form of a "table of correlatives".

		Demonstrative				Quantified	
	Interr.	Proximate	Obviate	Root	Indefinite	No	Every
Determiner	kêš	hnu	hno	—	∅-	kza-	sfe-
Pronoun	fes	hun	hnoj	pzi	papzi	kzapapzi	sfepapzi
Place	hre	hru	hro	śôh	paśôh	kzapaśôh	sfôpaśôh
Time	kît	kîtî	kîtê	sfir	pasfir	kzapasfir	sfepasfir
Place and time	grât	gjun	groj	kên	pâkên	kzâpâkên	sfêpâkên
Manner	sfô	sfun	sfoj	sfôm	pasfôm	kzapasfôm	sfôpasfôm
Purpose	ćurh	ćurhju	ćurhno	hwes	pahwes	kzapahwes	sfepahwes
Cause	ńa	ńun	ńoj	ńam	pańam	kzapańam	sfepańam
Source	îzrêj	îzrî	îzrê	—	—	—	—
Goal	estitrej	estitri	estitre	—	—	—	—
Beginning	pêskît	pêskîtîk	pêskîtêk	šwakirm	—	—	—
Ending	perkît	perkîtîk	perkîtêk	fêît	—	—	—
Verb	zim	szimje	kôsšô	ćêr	—	kzî-ćêr	—

Here the "root" column indicates the generic nominal, pronominal, and verbal roots corresponding to the types of pro-form listed, from which the indefinite and quantified forms are derived via prefixation.

Numbers

Numbers in Mîrkšam can function as either nouns or determiners. For details on the number system, see the "Number System" chapter below. When used as determiners, they function like any other determiner, following the noun they modify.

Associative plural

In addition to the morphologically-marked standard (additive) plural, Mîrkšam has an associative plural marked by a determiner, ‹îh›. The associative plural can only be formed for proper nouns, and it refers to the referent along with other things (usually people) associated with it. Thus, it designates a heterogeneous set with interpersonal cohesion, of which the marked noun (called the focal referent) is a member. This interpersonal cohesion can take the form of kinship, friendship, association, or simply membership in some common group. Common nouns and pronouns have no specifically-marked associative plural forms, but for personal pronouns the equivalent meaning can be expressed by the ordinary plural — thus, ‹fjeh› "(exclusive) we" does not usually refer to more than one "I", but rather to "I" and some people associated with me, though the former meaning is by no means ruled out.

Other Lexical Categories

Adpositions

Because Mîrkšam is a head-first language, adpositions always precede the rest of their adpositional phrases; thus, all adpositions in Mîrkšam are prepositions. When the object of a preposition is a noun phrase, the head noun of the noun phrase is conjugated in the dative case. Some adpositions can take complement clauses with ellipsed complementizers as objects, e.g. in ‹śrać ânîn…› "the answer to…", in which the object is a question. In this case, the object has the same syntax as a regular independent clause; only the intonation and context (and, in writing, the end-of-prepositional-phrase punctuation mark) mark it as different.

Comitative

A comitative relator preposition ‹sû› "with" is used to denote accompaniment. It does not, however, ever have an instrumental meaning in addition to this, unlike English "with".

Particles

Particles have no independent meaning and gnerally serve purely syntactic functions. They are never inflected and have only one invariable form. Thus, their various functions are mostly described in the chapter on Syntax below.

Interjections

Interjections in Mîrkšam are typically unrelated syntactically to their surrounding context and can therefore occur essentially anywhere. Common interjections include ‹huz› "behold!", ‹e› "hey, o", ‹ajtô› "come on", and various greetings, farewells, and social pleasantries.

Adverbs

The category of adverbs does not have consistent morphological or distributional properties and tends to function as a sort of "wastebasket taxon" for words that do not fit into any other category. Semantically, adverbs tend to express place, manner, time, and other similar properties for the words they modify, which are often verbs.

Derivational Morphology

Mîrkšam has a none-too-rich system of affixes for the derivation of lexemes from other lexemes, but a large body of words are nonetheless constructed from those derivational affixes that are present.

Verb to verb derivation

Causative

A causative can be derived from a verb by prefixing it with ‹uɼ-. The resulting verb indicates that the subject causes the new accusative object to perform the action or be in the state indicated by the original verb. Thus, the subject of the original verb is made the accusative object of the new verb; alongside this, the accusative object of the original verb, if present, becomes the dative object of the new verb.

    ‹majern› "be long" → ‹ûrmajern› "elongate"
    ‹khêh› "be dead" → ‹ûrkhêh› "kill"
    ‹sej› "be apparent" → ‹ûrsej› "reveal"

Compare:

    ‹Merene tfoh šûmûk ić.›
    OBV-SGV-[IND-PRS-IPFV]have SGV-god[NOM] PL.eye-ACC three
    "That god has three eyes."

    ‹Mereirne tfohuk šûmôk ić.›
    OBV-SGV-[IND-PRS-IPFV]CAU-have SGV-god-ACC PL.eye-DAT three
    "That one gives the god three eyes."

Tendential

A verb can be prefixed with ‹zja›- to form a new verb meaning "to have a tendency or nature to do [the old verb]".

    ‹šûɼ› "feel (an emotion)" → ‹zjašûɼ› "be emotional"
    ‹šemek› "hunt" → ‹zjašemek› "be predatory"

Ablative

An verb with an ablative meaning can be derived from another verb through the addition of the prefix ‹etɼ›-.

    ‹hej› "move" → ‹etihej› "depart"
    ‹kaje› "bite" → ‹etikaje› "bite off"

Verb to noun derivation

Agentive

Agentive nouns can be formed from verbs via the prefix ‹pfɪ›-. The resulting noun indicates someone or something who does the action of the verb or is in the state it indicates. Originally the prefixed agentive form denoted only that the agent was undergoing the verb necessarily at the specific moment being discussed, but later it came to develop a more habitual or general aspect, and it is frequently used this way. Nonetheless, some older words still have a double prefix ‹pfɪ›-‹zja›- to denote habitual or tendential agentive status in contrast to a more immediate or specific derivation with ‹pfɪ›- alone. Thus, there are both ‹pfɪzjaćakaj› "sage" and ‹pfɪćakaj› "understander" from ‹ćakaj› "understand", each having a somewhat different shade of meaning.

Event nominalization

A derivational prefix ‹fe›- converts the verb into a noun representing a result or abstraction of the process of the action or state described by the verb ('the result of [verb]-ing is that one is undergoing [noun]'). The affix functions rather similarly to Mîrkšam's infinitive mood for many stative verbs, but often with more abstraction from the verb.

> ‹sfaj› "to fear" → ‹fesfaj› "fear, terror"
> ‹kûk› "be capable of" → ‹fôkûk› "ability"

Arguments of the verb as modifiers

When a noun is derived from a verb, the arguments of the original verb are converted into modifiers of the new noun in a standard way. The role originally taken by the subject of the verb is expressible as a genitive modifying the noun, and those taken by the objects are expressible as the objects of prespositions modifying the noun: ‹šu› for accusative objects and ‹nat› for dative ones. This system is also used with verbs in infinitive mood. However, for agent nouns, where the subject of the verb becomes the noun itself, a modifying genitive instead indicates the accusative object of the verb, and ‹šu› is not used. Thus compare:

> ‹Areirne tnûrûk knâmok kzes.›
> EX-SGV-[IND-PRS-IPFV]CAU-have SGV-2-ACC [TRN]truth-DAT only
> "I give you only the truth."

> ‹feirne tjahmi šu tnûrôk nat knâmok kzes›
> process_abstraction-CAU-have SGV-EX-GEN to SGV-2-DAT to [TRN]truth-DAT only
> "my gift of only the truth to you"

Verb to adverb derivation

With the addition of the prefix ‹im›-, an adverb can be derived from a verb with the meaning "in a manner of doing the verb action or experiencing its state"; the result is then similar to the result of suffixing "-ingly" to a verb in English.

> ‹mim› "be calm, peaceful" → ‹imim› "calmly, peacefully"

‹śorɓ› "speak" → ‹untśorɓ› "aloud"

Noun to noun derivation

Nominal reduplication

When reduplication occurs in nouns, it is simple partial reduplication and occurs at the left edge of the relevant morpheme. The base of the reduplication consists of the onset and nucleus of the leftmost syllable of the morpheme it is applied to; these phonemes are duplicated and then affixed to the beginning of the morpheme. The result of such reduplication is another noun with a meaning of the abstract concept of the original noun taken to a greater degree or made more "proper" or "true" in some way:

‹smor› "human" → ‹smosmor› "someone with real humanity or a true human spirit"
‹ksôjm› "a partner to whom one is bonded" → ‹ksôksôjm› "spouse"
‹šwakirm› "beginning" → ‹šwašwakirm› "the absolute beginning of everything".

Diminutives and augmentatives

Nouns can form diminutives with the prefix ‹kni›- and augmentatives with the prefix ‹gra›-. Some augmentatives formed this way take on pejorative connotations, though this is far from universal.

‹kop› "rock" → ‹knukop› "pebble, gravel"
‹treg› "thorn" → ‹gratreg› "spike"

Quantifying prefixes

Three prefixes, ‹sfe›- "every", ‹sfa›- "all", and ‹kza›- "no", function effectively as quantifiers for nouns and certain pro-forms. Whereas ‹sfe›- changes the noun to refer to each instance of the referent individually, ‹sfa›- changes it to refer to all the instances of the referent taken together as a collective whole. Meanwhile, ‹kza›- functions to negate the noun or pro-form.

Groups

A noun can be turned into another noun indicating a group, collection, or body of the noun with the addition of the prefix ‹nem›-. This is commonly employed for groups of animals instead of using a separate noun such as "flock of…", "herd of…", etc., and is also frequently used for anything that naturally groups or clumps together.

‹zwiɓ› "fish" → ‹nentzwiɓ› "school of fish"
‹heb› "offspring, descendant" → ‹negkheb› "clan"
‹šôm› "eye" → ‹nôńćšôm› "pair of eyes"

Nominalized genitives

A noun in the genitive case can be re-nominalized through suffixation with -‹b› to constitute a noun phrase or noun by itself, originally equivalent to ‹pzi› modified by the ordinary genitive (though in some cases semantic change has made the meanings diverge). The resulting word is considered a lexical item in its own right and may not always retain the same meaning as a strictly nominalized genitive; in some cases

the original noun that was in the genitive has been lost and only the derived form remains. Thus, while this process was originally inflectional, it is derivational by later Mîrkšam, formed with an essentially independent suffix -‹miꝺ› (originally genitive -‹mi› + nominalizing -‹ꝺ›). Nonetheless, the meaning is generally something like "that of/relating to/belonging to [noun]". When applied to places, it signifies natives or inhabitants of those places: thus

‹ôrôsija› "Russia" → ‹ôrôsijamiꝺ› "Russian(s)"
‹eptne› "The planet Ugas" → ‹eptnemiꝺ› "inhabitant(s) of Ugas".

Noun to verb derivation

A noun can be converted into a verb that means "to be exactly the same thing as [the noun]" with the addition of a prefix ‹nuj›-. This can be applied to practically anything, including proper nouns, names, and so forth, but the resulting word is generally not considered a separate lexeme from the original noun. Another prefix, ‹kwa›-, converts a noun into a verb that means "to be a member of the set of [the noun]" and is analogous to ‹nuj› in terms of its grammar. These constructions are frequently employed where the copula "be" would be used in English.

Preposition to preposition derivation

The prefix ‹a›- changes a preposition of place or time to indicate motion toward that place or time; it functions analogously to English "-to" in "onto" and "into".

‹ajm› "above" → ‹aajm› "to above"
‹ńi› "within" → ‹ańi› "into"

Mîrkšam is a strongly right-branching language; the heads of phrases almost always come first in their phrases, so that noun phrases begin with nouns, verb phrases begin with verbs, and so forth. In accordance with this, the basic word order of a Mîrkšam sentence is VSO — verb-subject-object — and the general order of a Mîrkšam noun phrase is noun-modifier-relative clause. Similarly, Mîrkšam adpositional phrases ordinarily begin with the adposition, so that Mîrkšam adpositions are universally prepositions rather than postpositions.

Noun phrases

A noun phrase, like practically any other phrase, is constructed head-first. Noun phrases have the general order

noun—participial—numeral—determiner—genitive—relative clause—prepositional phrase.

Apposition

Apposition of noun phrases is expressed by the use of a particle, ‹ńaj›, intervening between the noun phrases in apposition. The head nouns of the phrases are declined in the same case, and, in most circumstances, though not necessarily, the same number.

Adpositional phrases

As mentioned above in the chapter on Adpositions, adpositions, as the heads of their phrases, always come first in the phrase. This means they usually directly precede their objects. Other details on adpositional phrase syntax are also found above.

Verb phrases

The verb phrase in Mîrkšam comprises the majority of any given clause in the syntactic deep structure. However, in the surface structure, the object moves from the complement of the verb phrase to the specifier of CP, thus appearing after the subject, which itself ends up in Spec(IP). In both the deep structure and the surface structure, the verb precedes both of these, coming first in the verb phrase. In any given clause it is only underlyingly preceded by the heads of IP and CP, the former of which forms the inflectional prefixes on the verb, and the latter of which is empty in independent clauses and filled by ‹sja› in relative clauses (and other complementizers in other clauses). After movement occurs, adverbs may also precede the verb; see below.

Adverb order

Verb-modifying adverbs are found in a place—manner—time order, usually immediately following the verb (before even the subject). However, this order may be changed for emphasis or from literary considerations. Adverbs may thus be found in different orders relative to each other, and even relative to the verb where this would create no ambiguity; one moderately common placement is before the main verb of a sentence. Older or archaizing Mîrkšam works may treat this as a syntactic break and require the appropriate punctuation (◦–) before the verb in such cases, but even later prescriptive grammars do not

maintain this rule.

Degree words follow the adjectives they modify.

Embedding

Entire clauses can take on the roles of various lexical categories and be embedded in other clauses. The result is one of several kinds of subordinate or dependent clause, which is placed in exactly the same position as its ordinary word counterpart in the sentence would be. These clauses are formed with the aid of complementizers, which always precede the clause of which they are the head, and which vary depending on the type of clause.

Complement clauses

Complement clauses are rare in Mîrkšam because situations that can be expressed with them are usually expressed via the use of an infinitive verb with various modifying nouns and prepositional phrases. When they are used, they are structured identically to independent clauses, but with a complementizer ‹ûš› preceding them.

Complement clauses used as the objects of certain prepositions such as ‹anîn› can ellipse their complementizers. As these prepositions only take clauses as objects, such ellipsis is unlikely to cause confusion.

Relative clauses

Relative clauses in Mîrkšam are externally-headed, so that the noun the clause denotes (the head of the clause) is found outside the clause. They are typically framed by the complementizer ‹sja› and the particle ‹ûrt›, the former preceding the clause and the latter following it. However, ‹urt› or a series of ‹urt›s may be ellipsed when appearing at the end of a sentence. In addition, if there are multiple coordinated nouns being modified by the relative clause, ‹sje› is used instead of ‹sja›. In terms of the linear order of the relative clause, it universally follows the head, as well as any participials, numerals, determiners, and genitives modifying it, but precedes modifying prepositional phrases. Relative clauses use resumptive pronouns, which can be modified or coordinated.

Adverbial clauses

Adverbial clauses in Mîrkšam are almost identical to relative clauses, being constructed with the same complementizer and particle and word order, etc. However, instead of modifying a noun, they modify and follow a pro-adverb or adverb; in this case, ‹sja› restricts the meaning of the (pro-)adverb to the domain specified by the conditions of the adverbial clause, and there need be no resumptive pro-form in the clause. If there is a resumptive pro-form, it is a pro-adverb with the adverb modified by the clause as its antecedent. Thus, clauses modifying a time can use a resumptive pro-adverb of time, and analogously for place and manner. Otherwise, there are no differences between adverbial clauses and relative clauses.

Coordination

Coordination is accomplished differently for different syntactic elements. Clauses are coordinated via one of a moderately small set of coordinating conjunctions, which is interposed between the clauses. Some common members of this set include ‹orm› "and", ‹aš› "and, but", ‹âš› "but", ‹za› "but rather", ‹hwat› "either… or", ‹izi› "… or… or both", ‹hjan› "resulting in, then", ‹hwi› "for the motivating reason that,

because", ‹śa›, "logically implies that", ‹ńug› "from the cause that, because", and ‹pfâ› "so that".

In a series of coordinated clauses, the prefix ‹uj›- can be added to these conjunctions after the first one to indicate that the clauses that follow are on the same branching level as the clause following the first conjunction: thus

> ‹ârośorf ńug [x] ujńug [y].›
> 1-SGV-[IND-PRS-IPFV]speak because [x] and-because [y]
> "I speak because [x] and because [y]."

— as opposed to

> ‹ârośorf ńug [x] orm [y].›
> 1-SGV-[IND-PRS-IPFV]speak because [x] and [y]
> "I speak because [x], and [y]."

or

> ‹ârośorf ńug [x] ńug [y].›
> 1-SGV-[IND-PRS-IPFV]speak because [x] because [y]
> "I speak because [x] because [y].".

Coordination of noun phrases, of verb phrases, and of heads of phrases in general, by contrast, is accomplished via simple juxtaposition (asyndeton), with no intervening conjunction. To express semantic relations and nuances among the coordinated elements, particles may be added after the elements. To explain this, we can posit the existence of a null coordinating conjunction, for which these particles serve as a modifier. Among these particles is ‹ẁ›, which makes the relation between the coordianted elements an inclusive "or".

There is one exception to the general use of asyndeton for noun phrases: the conjunction ‹zem› "excepting" can take the place of the null conjunction and intervene between two nouns representing a set and another set subtracted from it. It can even coordinate coordinated noun phrases, so that there are multiple juxtaposed phrases before and after it.

Often, when verbs are coordinated, only the first is conjugated fully, with the rest making use of the tense anaphor ‹ćńe›-; see the section on "Tense anaphora" above.

Negation

Standard negation of verb phrases is expressed through the negative mood (See "Verbal Morphology" above). Noun and pronoun phrases can be negated by prepending the prefix ‹kza›- to the head noun or pronoun; this same prefix can also be used to negate pro-adverbs. Another negation strategy for verb phrases is the use of the pro-adverb ‹kzapasfir› "never", wherewith the modified (head) verb is not used in the negative mood. Double or multiple negation, in the rare instances when it takes place, is generally interpreted as a negation of a negation (of a negation…, etc.), so that the end result is negative if there are an odd number of negations but positive otherwise.

Questions

Polar questions are formed by prepending an interrogative particle to the part of the statement that is being questioned, or to the verb if the statement as a whole is being questioned. There are three

different such interrogative particles depending on the expectations of the questioner: one particle ‹zaj› for an expected positive answer, one particle ‹ku› for an expected negative answer, and one neutral particle ‹ka› with no specific expectation of either answer. An alternative but less common means of forming a polar question is as a declarative question, which is unchanged from a declarative statement except in intonation (and punctuation, in writing). Declarative questions are neutral, with no stated expectation or implication of either answer.

Polar questions are answered by echoing the questioned word to which the interrogative particle is prepended, either negated or not negated according to the answer given. The particle itself is not echoed. To answer declarative questions, one echoes the verb (again, possibly negated, depending on the answer). An informal interjection ‹kzu›, deriving from the negative prefix of an echoed verb, exists to answer polar questions negatively, but while its use is widespread, it is frowned upon in formal writing. A comparable informal practice for positive answers is to echo the verb without its inflectional affixes.

Content questions (wh-questions) are constructed identically to declarative statements, with the word inquired after simply filled by the appropriate pro-form. The pro-forms remain in situ — in their normal place in the sentence. They are answered by providing the word inquired after.

Choice questions are formulated as declarative questions and answered by echoing the selected choice.

Quotation and paraphrase

Direct quotations are generally introduced by the particle ‹šam› "saying", which directly follows the noun phrase or pronoun referring to the speaker. If the speaker is ellipsed as a null subject, ‹šam› can instead simply be placed where the subject would be if it were not ellipsed (so long as this does not place it immediately after a different noun or pronoun): ‹śorf šam mereśrep am.› "It is said, 'That one lives'.". The quotation continues until the particle ‹am›, which marks its end. Quotations can be used with any verb in the sentence or any other structures; they depend only on the noun that refers to the speaker, which the quotational clause with ‹šam› as its head it considered to modify.

Paraphrasal clauses, representing paraphrased speech, are constructed analogously except that the particle ‹pûm› is used instead of ‹šam›; they, too, are ended by ‹am›.

Paraphrases may alternatively be handled using complement clauses as objects of verbs of speech; see "Complement clauses" above for how these are constructed.

Reciprocal constructions

Mîrkšam uses a non-iconic reciprocal construction ‹ôst tosmorok, tosmor› "each other", literally meaning "human to human", with certain transitive verbs to render a meaning that the members of the subject set are doing the action of the verb to each other. It cannot be found with a singulative subject.

Evidentiality

A reportative particle ‹em› exists as an evidential to indicate that the statement it appears in is hearsay, but evidentiality is not a distinct grammatical category that must be expressed; it is merely optional. When the reportative particle is used, it immediately follows the verb, preceding both the subject and any modifying adverbs.

34

NUMBER SYSTEM

While the Mîrkšam number system is a decimal one, as is most common among humans, it nonetheless presents some significant differences from the simple positional number system favored in our world. More specifically, it combines a positional number system with an exponential system that allows empty positions to be omitted.

Digits and multipliers

The basic digits used are thus:

Mîrkšam numeral	Western Arabic numeral	Mîrkšam name
∽	0	ko
⸲	1	ut
⸲	2	ât
⅋	3	ić
∽	4	eh
⸲	5	ta
⅋	6	će
∽	7	ôru
⸲	8	si
∽	9	pu

Ten, eleven, twelve, and thirteen are also uniquely named despite the decimal nature of the system: they are ⟨psa⟩, ⟨saj⟩, ⟨âkru⟩, and ⟨ar⟩, respectively.

Alongside this basic series of ten digits, a set of exponential multipliers is used:

Mîrkšam symbol	Value of multiplier	Mîrkšam name
⸌	10^0	ûp
⅋	10^1	uput
⅋	10^2	upât
⅋	10^3	ipić
⸲	10^4	ipeh
⸲	10^5	ûpta
⅋	10^6	ipće
∽	10^7	ûpôru
⅋	10^8	ipsi
∽	10^9	upu

Similarly to the digits, there are further named multipliers: ⟨ûpsa⟩, ⟨ûpsaj⟩, ⟨upâkru⟩, and ⟨ûpar⟩ represent 10^{10}, 10^{11}, 10^{12}, and 10^{13}, respectively. Unlike the digits, of which there are only ten, the set of exponential multipliers is infinitely extensible; 10^x can be named by prefixing ⟨up⟩- to the name of some number x, and the symbol can be formed by prepending that of 10^0 to the symbol representing the number x.

Cardinal numbers

Cardinal numbers in Mîrkšam are formed from strings of pairs of a series of digits and a multiplier. Each pair represents the number indicated by the series of digits (whose value is determined as if in a simple positional system) multiplied by the power of ten indicated by the multiplier. Each pair is written in a single column without a break in the line; thus, when one comes to such a break, one knows the multiplier of the former pair has ended and the digit series of the latter pair has begun. Each pair, after being evaluated, is added to the last until the full number is obtained. The pairs are generally organized from highest power of ten to lowest.

For example, one may find a number such as 1486003504 written thus:

and transliterated thus:

utehsićeipće ićtaupât ehûp.

Translated into digits and exponents in western Arabic numerals, this yields:

$$1486 \ 10^6 \ 35 \ 10^2 \ 4 \ 10^0$$

which means:

$$1486*10^6 + 35*10^2 + 4*10^0$$

which in turn is evidently equal to 1486003504.

For representing numbers with large numbers of zero digits, the advantages of this system are obvious; one can, for example, represent a number that is very large in a strict positional system, such as 10000000000000, very simply as . For small numbers, however, this can be more cumbersome: every single-digit number must here have an additional component showing it to be multiplied by $10^0 = 1$. Thus 3 is represented not by but by .

Each number is pronounced simply as a string of digits and multipliers, as it is read. The resulting number can be used as a noun or as a determiner, but usually the latter lexical category is assumed in cases of ambiguity.

Note that, due to the limitations of fonts, the Mîrkšam numbers in this grammar are written horizontally, but this is actually a rotation from their typical top-to-bottom writing direction.

Ordinal numbers

Ordinal numbers in Mîrkšam function as determiners. Their forms are regularly derived from the cardinal numbers by preceding the latter with the particle ⟨êm⟩, with the sole exception of the ordinal for one, which is ⟨urf⟩.

Multiplicative adverbial numbers

Multiplicative numbers that function as adverbs representing how many times or to what degree some verb's action is done can be regularly derived from the cardinal numbers by preceding the latter with

the particle ‹môt›. This particle can also be attached to fractions in the same role.

Distributive numbers

In addition to these types of numerals, Mîrkšam has a series of distributive numbers, indicating that the number in question (the distributive share) is distributed among the members of a noun or verb phrase (the distributive key). These distributive numbers are again regularly derived from cardinals with the addition of a preceding particle, in this case ‹po›. For example, from ‹ut› "one" is formed ‹po ut›, meaning "one each" if the distributive key is a noun phrase or "one by one" if it is a verb phrase.

Fractions

Fractions are regularly derived from cardinal numbers with a preceding particle ‹mêm›, evidently related to the ‹êm› that marks ordinals. The resulting fractions are reciprocals of the original cardinals. These basic fractions may in turn be followed by cardinal numbers acting as determiners to indicate multiples, but in this case the reciprocal first given must end in ‹ûp› so as to separate it from the following number, even if the ‹ûp› would be otherwise superfluous for a stand-alone number (e.g. when the last digit of the denominator is zero, so that the number ends in ‹koûp›). In this case the first number following the ‹êm› particle is effectively the denominator, and the second the numerator.

Nonacrolectal Mîrkšam

While the majority of the above reference grammar described the normative variety of the central dialect of Mîrkšam, the language has many other dialects and colloquialisms that do not fit this acrolectal model. These will be described here… someday.