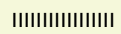




aaaaaaaaA, the language of *somewhere*

uruwi



aaaaaaaaaaaaaaaa

A complete grammar

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Dedicated to Marek.

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0.1 | Introduction

1 | Phonology and orthography

1.1 | Phoneme inventory

Synopsis: Consonants are in free variation with vowels.

In aaaaaaaaaA, each consonant is interchangeable with a corresponding vowel. Consonants may also have an ingressive pronunciation.

Table 1.1: Phonemes of aaaaaaaaaA.
Consonant

#	Hacm	(Egre)	(Ingr)	Vowel
0	ʃ	tʰ	!	eɪ
1	nʰ	ŋ	ɡʰ	ã
2	b	p	p	y
3	ɒ	m	ɓ	ũ
4	j	s	s	i
5	ɥ	j	j	i
6	ʌ	tʰ		ʌɪ
7	o	w	w	u
8	ɸ	k	k	o
9	l	l	l	u
10	ɫ	kʰ	ʈ	oɪ
11	n	n	n	eɪ
12	ɾ	r	ɹ	ɛ
13	ɹ	t	t	e
14	h	h	h	a
15	s	ʈ	ʈ	ʌ

When pronounced ingressively, the tones of vowels are inverted. That is, [ʌɪ↑] becomes [ʌɪ↓].

1.2 | Airflow

Synopsis: Change of airflow direction has a morphosyntactic basis.

There are two types of airflow: *ingressive* and *egressive*. The direction of airflow is reversed:

- at the beginning of a modifier
- at certain affixes
- in the middle of certain roots

On a proper noun, as well as on encountering a nasal vowel, the direction is switched to egressive and remains so until it is changed by one of the above methods.

In hacm, switching the direction of airflow is marked by </> (to ingressive) and <\> (to egressive). In dictionaries, a switch in airflow direction (without regard to the final state) is marked using <>.

1.3 | Phonotactics

The only phonotactic restriction is that two identical instances of a phoneme may not occur consecutively. If this rule is violated by affixation, then the violation is resolved by:

- replacing the earlier instance with an instance of its predecessor (e. g. /w/ (7) → /tʰ/ (6), wrapping when necessary), and
- replacing the later instance with an instance of its successor (e. g. /w/ (7) → /k/ (8), wrapping when necessary).

1.4 | Allophony

The following changes are made:

$$\begin{aligned} lm &\rightarrow p \\ nl &\rightarrow r \\ \text{ɬ} &\rightarrow \text{t}' \quad (\blacklozenge \neg \{\square, \text{t}', \text{k}'\}) \end{aligned}$$

(Here, the symbols for the egressive versions of the consonants are used, but these rules apply during ingressive airflow as well.)

Thus, for instance, /hswlmŋ/ would be resolved to [hswpŋ], which could, for instance, be pronounced [asupā].

1.5 | The biting affix

A frequent type of affix encountered in aaaaaaaaaA is the *biting affix*, which has the syntax <->δ:ω>. To apply this affix onto a word α:

- Take the last length(δ) phonemes of α , and xor them with δ itself using the indices of the phonemes.
- In addition, switch the airflow at the start of the altered phonemes.
- Then append ω .
- Resolve any phonotactic violations.

For instance, if we wanted to use $\langle -\text{y:fn} \rangle$ on $\langle \text{bɒl} \rangle$, then we would:

- Take the last letter of $\langle \text{bɒl} \rangle$, namely $\langle -l \rangle$ (9), and xor it with $\langle -\text{y} \rangle$ (5). $9 \vee 5 = 12$ so we now have $\langle -n \rangle$.
- Append $\langle -fn \rangle$. We now have $\langle \text{bɒ} \rangle \text{fn}$.

2 | The statement space

2.1 | Conceptualisation

Synopsis: aaaaaaaaaA makes a distinction not between nouns and verbs, but rather between *concretes* and *abstracts*.

Table 2.1: Distinction between concretes and abstracts.

Concretes	Abstracts
Describe concrete objects and actions	Describe abstract concepts, processes and relations
Inflected for gender and number mutability	Not inflected
Mutual order in parameter list is usually significant	Mutual order in parameter list is insignificant

Thus, if C_1, C_2, \dots, C_n are concretes, A_1, A_2, \dots, A_n are abstracts, and X is either a concrete or an abstract, then

$$X(A_1, \dots, A_n, C_1, \dots, C_n) \quad (2.1)$$

means that X has the properties A_1, \dots, A_n and involves C_1, \dots, C_n .

For instance, take the sentence *The sun shines*. This can be translated to *Source(Sun, Light)*. In this case, *Source* is an abstract, and *Sun* and *Light* are concretes. Literally, the translation says that *the sun and light are involved in sourcing, or the sun is a source of light*.

As a more complex example, *On a Sunny morning after the [summer] solstice we started for the mountains* can be translated as:

Time(
Morning(Weather(Sun), After(Summer_Solstice)),
Walk(We, Destination(Mountain), Start))

2.2 | Application

The top level of the statement tree is treated differently from the lower levels. The syntax of the top level is

$$\text{Topic Operator Arguments} \dots \equiv \text{Operator}(\text{Topic}, \text{Arguments}) \quad (2.2)$$

$$\text{Topic Operator Args}_1 \triangle \text{Args}_2 \dots \equiv \text{Operator}(\text{Args}_1, \text{Topic}, \text{Args}_2) \quad (2.3)$$

$$\text{Operator Arguments} \dots \equiv \text{Operator}(\text{Arguments}) \quad (2.4)$$

Note that in (2.2) and (2.4), all of the components of the syntax can be concretes or abstracts. In (2.3), Topic must be a concrete, but all other arguments may be concretes or abstracts.

The lower levels use the following syntax:

$$X \ulcorner \text{Arguments} \dots \lrcorner \equiv X(\text{Arguments}) \quad (2.5)$$

Inside the topic, the following is used instead:

$$\lrcorner \text{Arguments} \dots X \urcorner \equiv X(\text{Arguments}) \quad (2.6)$$

Finally, here are the morphemes that aaaaaaaaaA assigns to the special symbols:

Table 2.2: Names of syntactic markers in aaaaaaaaaA.

\triangle	js
\ulcorner	->q:fn
\lrcorner	b
\lrcorner	φ
\urcorner	->rl:bh

2.3 | Concrete inflections

2.3.1 | Season class

Synopsis: *There are five classes open to new concretes, as well as a closed class of season-neutral words.*

In general, if C is of class y , then the processed form of C will be of class $y + 1$ (or 1 if $y = 5$).

Table 2.3: Classes in aaaaaaaaaA.

#	(° from VE) Start	End	Name	Archetypes
1	24	96	Late Spring / Early Summer	decorative flora such as flowers, honey, bees
2	96	168	Late Summer / Early Autumn	raw plant-based crops, milk, trees, grass, hot things, rain, most aquatic creatures and insects
3	168	240	Mid Autumn / Early Winter	processed plant-based food, wood
4	240	312	Mid Winter	(meat of) wild animals, frozen or cold things, metals
5	312	24	Late Winter / Early Spring	decorative flora such as flowers, arachnids

2.3.2 | Number mutability

Number mutability describes how likely the quantity of a concrete is to change. Note that a concrete can only take either a time mutability or a space mutability, not both.

Table 2.4: List of number mutabilities.

Symbol	Name	Description
Ω	Multiversal time-constant	The quantity cannot change <i>under any circumstances</i> .
Ψ	Universal time-constant	The quantity does not change within the current universe, but might be different in other universes.
X	Lifetime-constant	The quantity is unlikely to change to a significant degree within one's lifetime.
Z	Lifetime-enumerable	The quantity is likely to change one or more times during one's lifetime, but such a change would be a significant life event.
Ξ	Continually mutable	The quantity is likely to change within a short time span (usually within seconds or minutes, but can be up to about a month).
Φ	Continuously mutable	The quantity is continuously changing across time.
$\tilde{\Omega}$	Multiversal space-constant	The quantity is currently the same across all universes.

Symbol	Name	Description
$\vec{\Psi}$	Universal space-constant	The quantity is currently the same within the current universe, but might be different in other universes.
\vec{X}	Domain space-constant	The quantity is unlikely to be different within the current domain.
$\vec{\Xi}$	Continually space-mutable	The quantity is likely to change across a short span of space (usually a few metres, but can exceed hundreds of kilometres).
$\vec{\Phi}$	Continuously space-mutable	The quantity is continuously changing across space.
Σ	Situational	(in programming) The quantity might depend on the implementation.

Table 2.5: List of number mutability affixes.

S#	Affix 1	Sym	Affix 2
1	$\rightarrow n^{\Phi}$:	Ω	lbD
2	$\rightarrow j$:	Ψ	lOn ^o
3	$\rightarrow l$:	X	bOj
4	$\rightarrow b$:	Z	lſy
5	$\rightarrow n$:	Ξ	DyD
0	$\rightarrow h$:	Φ	nSl
		$\vec{\Omega}$	lbY
		$\vec{\Psi}$	lhd
		\vec{X}	bhl
		$\vec{\Xi}$	Dly
		$\vec{\Phi}$	nſd
		Σ	ln ^o o

When a concrete acts as a verb, it inherits the number mutability of its first argument.

If the mutability equals that of the previous concrete mentioned in the same sentence, then both the class affix and the mutability affix can be omitted.

2.4 | A simple example

Take the sentence *Fish eat flowers*, which would be treed into [Eat](#)([Fish](#), [Flower](#)).

The roots we need are:

- $\langle \text{bo}\phi \rangle$ c2 (0) eats (1)
- $\langle \text{fn}l \rangle$ c2 fish

- $\langle \text{nsn} \rangle$ c1 flower

The number of fish that exist change whenever a fish is born or dies. This is quasi-continuous, but technically continual. We can choose either option but we will use Ξ in this example. We use the same mutability for flowers.

Fronting the topic, we get:

$\backslash \varphi \eta / j \text{DyP}$ $\text{bo} \backslash \text{rDyP}$ ns / DyP
 $\varphi \eta \text{I} \text{f} \rightarrow j \text{DyP}$ $\text{bo} \varphi \rightarrow j \text{DyP}$ $\text{nsn} \rightarrow n^{\Phi} \text{DyP}$
 fish-2- Ξ eat-2- Ξ flower-1- Ξ
 Fish eat flowers.

However, we can omit the affixes on all but the first word, leaving:

$\backslash \varphi \eta / j \text{DyP}$ $\text{bo} \varphi$ nsn
 $\varphi \eta \text{I} \text{f} \rightarrow j \text{DyP}$ $\text{bo} \varphi$ nsn
 fish-2- Ξ eat flower
 Fish eat flowers.

A | Dictionary

| b

boφ c2 (0) eats (1)

| D

DΩl c3 bread

| φ

φnlf c2 fish

| Ω

ΩSn c1 flower