THE PRACTICAL



ON PHONOLOGY, GRAMMAR,

AND THE PREVENTION OF MOUTH INJURIES.

BY CANCRIZANS CANON

0.1 Overview

!uũ!oi!

('Hello!')

‡a nùi ('First words') is, as much as it pains me to admit it, not a real language, but it does try to be. It is a naturalistic constructed language (conlang) that makes extensive use of complex **click sounds**, which are strange loud consonants you make by abusing your tongue like a cheapo suction cup. It is *a priori*, meaning it is not based on any real-world language of the present or past. As for the purpose of designing this language, let's keep that a surprise.

While an original creation, the sound of ‡a nùĩ takes inspiration mainly by the beautifully intricate phonologies of the **Khoisan languages**, a group of many language families indigenous to southern Africa, which feature large inventories of decorated clicks, and strange phonation distinctions in vowels. In addition to that, there are sprinkles of other sound-looks I like, picked from languages such as Basque, Sanskrit, and one of my favourite families: Aboriginal Australian languages. ‡a nùĩ 's phonation-tone register system is similar to that of Burmese.

For what concerns grammar, $\dagger a$ $\dot{\eta} \dot{u} \tilde{\imath}$ is typologically a mostly isolating language, analogous to Mandarin Chinese. It has a strict SVO (or better, AVP, as will be clear later) word order, it is (split-)ergative, and strongly head-final. It possesses almost no true "grammatical particles" in that very often they turn out to also double as regular nouns, like the relational nouns of Mayan languages.

This booklet should hold all information there is on both the phonology and grammar of $\dagger a$ $\dot{n}u\tilde{u}$. However, this document, as all my conlanging stuff, may try to explain things in a bit more pedantic detail than what you'd expect if you're a big linguistics buff. It is definitely aimed more at casual readers that don't remember off the top of their head what a *wh-in-situ* or an *accessibility hierarchy*¹ is; if you find parts of it make your eyes roll please go ahead and skip what's obvious to you.

This conlang is meant primarily to exist as spoken. Phrases in $\ddagger a \ nu \ i$ in this book are presented in its specialised orthography, which is designed to prioritise ease of pronunciation, is explained in the following sections, and are displayed in **bold**. Instead, phonemic/phonetic transcriptions using the IPA are in /slashes/ and [square brackets] respectively.

¹Something to do with power and wheelchair ramps?

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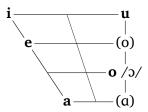
Chapter 1

Phonology

‡a nùi makes, curiously, no phonemic distinction of voicing. It does, hower, distinguish nasality as a binary feature between oral and nasal, and glottalization from modal, to creaky, to full glottal closure.

1.1 Vowels

Five vowel qualities are phonemically distinguished:



though, arguably, \mathbf{u} alternates between [u] and [o] realisations in somewhat free variation. [a] exist as a "backened" version of \mathbf{a} , see Section 1.3.1 on contextual backening. In addition, the following diphthongs are allowed and behave essentially as additional single vowel qualities for the purpose of registers and phonotactics:

It should be noted that **ui** specifically could be seen as a backened or "pre-backened" version of **i**, so that, say, the sequence **!ui** ought to be interpreted as the realisation of the phonetically impossible sequence **!i**. A similar but weaker relationship should exist between **pi** and **e**. This is paralleled in the distribution of open-to-close diphthongs which preferably appear in stressed syllables and frequently following "backening" clicks and consonants which wouldn't allow a front vowel in the same position. This rule isn't universal, however.

1.1.1 Registers

Unstressed vowels may only be monophthongs. Stressed vowels, instead, may be a monoor a diphthong, and in addition they carry one of four different phonations, or more precisely **four registers**, that is a phonation + tone combination:

Notation	Phonation	Tone
aa	Oral Modal [a]	4
aã	Nasal Modal [ã]	٢
àa	Oral Creaky [a̯]	4
àã	Nasal Creaky [ã]	4

All vowel qualities and the four diphthongs can take any one of the four registers, producing four different phonemes, except for \mathbf{e} whose nasal forms merge with those of \mathbf{i} . In the case of diphthongs, a single register is applied uniformly and a mid-swipe register change is not allowed (phonemically at least). In the orthography, the creaky voice diacritic is written on the first component and the nasal diacritic on the second. The resulting table of vocalic phonemes is as follows:

Stress	Register	Quality						
Unstressed	(unspecified)	a	e	i	О	u		
	Plain	a(a)	e(e)	i(i)	o(o)	u(u)	au	
Stressed	Nasal	aã iî		oõ		uũ	aũ	etc for other
Sitessed	Creaky	àa	èe	ìi	òo	ùu	àu	diphthongs
	Nasal Creaky	àã	ìí	ĭ	òõ	ùũ	àũ	

A stressed, plain register monophtong may also be *predictably* long or short. Specifically, it will be short if word-final and / or following a glottal(ised) consonant ', and it will be long otherwise. In the orthography, it will be accordingly written with a single or double letter. Instead, all unstressed vowels are short, while all diphthongs and all stressed non-plain vowels are long.

1.2 Consonants

1.2.1 Pulmonics

The pulmonic (i.e., non click) consonant phonemes of **‡a nùĩ** are as follows:

	Labial	Dental	Retroflex	Palatal	Lateral	Velar	Glottal
Stop	p	t/ts /t͡s̞/	t /t/	j / j /	tł /tɬ/	k	'/?/
Affricate		t/ ts / ts/	tṣ /t͡ʂ/	č /t͡ʃ/	u / u/	K	
Sonorant	m	n /n̯/	r/rr /r/, n /n/	ň /ɲ/	1	ŋ	

For the purpose of understanding the oral/nasal distinction, it's necessary to imagine that *phonemically* /l/ be the nasal counterpart to /t͡tl/. This allows, for example, to explain sequences such as $\mathbf{l\tilde{a}}$ tongue, whereas anywhere else an oral pulmonic + nasal vowel sequence is forbidden (see Section 1.3.2).

 η , while rare, is a true phoneme, and may also appear word-initially, see η aa woman vs na to laugh, and it must be seen as the nasal counterpart to k.

In the orthography, **t** and **ts** represent the same phoneme, with **t** appearing before front vowels **e** and **i** and **ts** before **a,o,u**. No implication about the actual pronunciation is implied (see later on allophony in Section 1.2.3)

1.2.2 Clicks

‡a nùĩ 's unique phonetic identity lies in its inventory of click consonants. While we will ultimately analyse each possible click sound as a separate phoneme, resulting in a disproportionately large inventory but simpler phonotactical rules, it must be understood that clicks are complex consonants best decomposed into many semi-independent features. We recall that a click is produced by enclosing a pocket of air in a surface between the tongue and the palate. It is necessary to fully seal this pocket to produce the click sound, and the mouth-palate sealing occurs along a circle passing trough a rear point of contact, laterally, and through a coronal front point of contact. The rear contact is always uvular, while the front contact may be in several positions, similarly to pulmonic consonants. By downward movement of the tongue, the trapped air pocket is rarefied, similarly to a suction cup. Finally, one point in the sealing is opened and air violently rushes into the pocket. The corresponding implosion produces the loud sound of the click. We thus may begin to list some parameters that may change in the production of the click and which may affect the sound:

- The location in the mouth where the sealing is opened; this is what is referred to as the **point of articulation** of the click.
- The opening of the velum and simultaneous airflow through the nose, i.e. **nasality** (or better, pre-nasalisation).
- The closure of the glottis simultaneously with the click, i.e. **glottalisation**.
- The mode of release of the rear closure, after the click sound has been produced.

 These are called **contours** or **effluxes** and can be seen as coarticulation of the click

with a uvular pulmonic.

Four points of articulations are distinguished in ‡a nùi :

- /|/, written 1, is laminal dental. The sound is noisy and highest in pitch.
- | is lateral. The release is lateral (necessarily on one side) and far back in the mouth. The coronal position of the tongue does not affect the sound, which is noisy but lower than the dental.
- ! is the alveolar or alveolo-palatal click, and the essential feature is that the tongue is pulled down (and back), resulting in an extremely sharp, clear and loud sound.
- ‡ is particular in ‡a nui . The release is coronal, and usually palatal or palatoalveolar [‡]; but the important feature is that the tongue is pulled *backwards*, producing something between a duller *pop* than an alveolar click and a slightly noisy sucking sound. Occasionally, the realisation of ‡ may even be more similar to a retroflex click [!!] with subapical tongue position.

Given a point of articulation, the language then distinguishes a total of ten different manners of articulations for each:

- I **Plain** The click is oral, glottis open, and the back-release is tenuis.
- II **Oral Glottalized** The glottis is closed, and kept open for a short while after the click sounds. This may appear as the onset of the following vowel being delayed. The click is oral.
- III **Fricative-contour** The click is oral, glottis open, and the back release is into a uvular fricative $[\chi]$. These clicks have an "affricate" sound.
- IV **Ejective-contour** The click is oral, glottis open, and the back release is into a uvular ejective [q'].
- V **Nasal** The click is nasal. Because of the velar/uvular closure, a velar/uvular nasal [ŋ N] appears to sound throughout the click. The glottis must be open, back-release is tenuis.
- VI **Nasal Glottalized** The glottis is closed, and kept open for a short while after the click sounds. This may appear as the onset of the following vowel being delayed. The click is nasal.
- VII **Nasal** + **Fricative-contour** The click is nasal, glottis open, and the back release is a uvular fricative, marked [ß] as nasality is almost always accompanied by voicing.
- VIII "**Pre-fricative**" A fricative is sounded before the click closure. While this is not a true co-articulation, since the fricatives may not occur in $\frac{1}{4}$ $\frac{1}{4}$ without a following click we class this series of clusters as separate consonant phonemes. The clicks are oral, glottis open, back release tenuis. Only a specific fricative precedes a certain point of articulation for the click; the combinations are $\frac{1}{5}$, $\frac{1}{5}$, $\frac{1}{5}$.

IX **Pre-fricative** + **Glottalized** These clicks have a fricative onset, oral, glottal closure with delayed release of glottal stop.

X **Pre-fricative** + **Ejective-contour** Fricative onset, oral, back release into [q'] All in all, the following 40 click phonemes exist:

Manner	Po	Point of articula					
I	/ /	/‡/	/!/	/ /			
II	\ ³ /	/ ‡ [?] /	/!²/	/ ²/			
III	/Î x /	/ \ π//	/ <u>!</u> χ/	/ χ/			
IV	/ q'/	/ ‡ q'/	/ <u>Îq</u> '/	/ q'/			
V	/ŋ /	/º‡/	/ŋ!/	/ŋ /			
VI	/ŋ ²/	/")‡ [?] /	/ŋ! [?] /	/ŋ ²/			
VII	_i <u>j</u> R\	_i)\frac{\frac{1}{2}}{1}.	_ij_IR\	_i) R\			
VIII	/s̞ /	/ş‡/	/ʃ!/	/ 4 /			
IX	/s̞ ²/	/§‡²/	/ʃ! [?] /	/4 ² /			
X	/sjq'/	/ṣ\frac{1}{q}'/	/ʃ!q'/	/4\hat{\hat{q}}'/			

If we are willing to segment the click even more, a somewhat clearer picture emerges. Among manners, we can distinguish an "onset" feature, which may be plain, nasal, or pre-fricative, and a "release" feature, which may be tenuis, glottal, fricative, or ejective. The 3×4 table that results makes it clear that all combinations except two are realised:

		Release					
		Ø	?	χ\r	q'		
	Ø	I	II	III	IV		
Onset	ŋ	V	VI	VII			
	F	VIII	IX		X		

As for the two unattested manners, their absence may be explained by difficulty of pro-

duction. The missing nasal-ejective clicks in particular would present the difficulty of switching from voiced to voiceless mid-click, or producing a fully voiceless nasal click, something that is certainly quite alien to $\frac{1}{2}$ a $\frac{1}{2}$ speakers.

In the orthography, the clicks are transcribed using the following dictionary:

Phonemic	Orthography
	1
ŋ *	n*
Š	s ₁
§‡	ș‡
<u>ſ</u> !	š!
4	ł∥
*3	* 9
$\underbrace{_{*}\chi}\setminus\underbrace{_{*}R}$	*x
*q'	* q '

1.2.3 Allophony

There is significant allophonic variance associated with the lack of phonemic value to voicing of consonants. Nevertheless, there are significant irregularities to keep in mind.

- · Labial or labiodental fricatives and affricates are unattested.
- The voiced stops [b], [d], [d] are allophonic for the nasals /m//n//. However, in palatal articulation it is [c] and [j] that are realisation of a single phoneme /j/, with the voiced form more common, while the scope of /n/ is narrower than the other nasals.
- In guttural (velar-glottal) position, curiosly [g] can substitute not only for /ŋ/ but also for the glottal stop /?/. As for /k/, it may often affricate to [kx] or even [x] directly, especially before front vowels, while a back vowel may uvularise it to [q].
- /r/ is always a trill, never tapped (a tap is more likely to be perceived as a nasal).
 It is geminated always in medial position (which we reproduce in the orthography with rr), occasionally even word-initially.
- /t͡s/ is only very rarely a simple voiceless stop [t̪], and it almost always is affricate.

1.3 Phonotactics

Here and in the following, these abbreviations are employed to describe phonotactical rules:

() Optional segment (may appear zero or one time)							
	Syllable boundary						
С	Any consonant phoneme, click or pulmonic.						
K	Any click consonant.						
P	Any pulmonic consonant.						
M	A sonorant consonant.						
V	Any vowel, mono- or diphthong, stressed or unstressed, in any register						
1	The following syllable is stressed						
v	An unstressed vowel (monophthong)						

1.3.1 Back vowel constraint

A fundamental mechanical constraint applies to vowel qualities directly following specific clicks (backening clicks). These clicks cause the tongue to quickly retract on frontal release, and therefore it is impossible to produce directly the sound of a frontal vowel.

The backening clicks in **\dagger** a **nu**i are

- All clicks with uvular contour (fricative-contour and ejective-contour).
- Non-glottalised!, ‡ and ∥.

therefore, the non-backening clicks are the complement of this set:

- · All glottalized clicks.
- 1 without uvular contours.

A backening click may not be followed by a front vowel **e** or **i**. In addition, **a** becomes [a]. Any vowel, instead, may follow a non-backening click. For a diphthong, the constraint applies to the starting quality of the glide, therefore **ui** may follow a backening click, as can **au**, though it will sound as [au].

1.3.2 Syllable structure and articulatory constraints

‡a nùi features a strict alternation of consonant and vowel, and thus a (C)V syllable structure. Generally, phonotactical restrictions appear as constraints related to the nasality and glottalisation features. The direction of consonant-vowel nasality interference is different for clicks and pulmonics, with the nasality of clicks interacting with that of the previous vowel and that of pulmonics with the following one. The precise rules are

- in a VX sequence, either both are oral or both are nasal. 1
- in a PV sequence, P cannot be oral if V is nasal.

E.g.: the sequences /a!-/ and / \tilde{a}^{η} !-/ are possible, but /* \tilde{a} !-/, /* a^{η} !-/ are not possible; while the sequences /pa/, /ma/, /m \tilde{a} / are allowed but /* $p\tilde{a}$ / can not occur.

For what concerns glottalisation,

- a CV sequence with a creaky voiced vowel will erase glottalization distinctions in the consonant C. This means that sequences like /![?]a/ and /!a/ are not phonemically distinct by convention we will transcribe the consonant without glottalisation.
- A glottal stop followed by a creaky vowel ?V is indistinguishable from the lone vowel V. We chose to transcribe both broad IPA and orthography *with* the glottal stop to preserve the simpler CV structure.
- A sonorant will become itself creaky before a creaky vowel: MV > MV, e.g. màa
 /mg/ > [ma]. This is not marked at all in the broad transcription.

1.3.3 Word structure and stress

Due to the extremely minimal morphology, the vast majority of words appear uninflected. This uninflected form follows a very rigid scheme:

$$(v_0).'CV_1.(Pv_2)$$

In other words, we necessarily have a **main syllable** CV_1 which always stressed, and is composed of either a click or pulmonic, and a vowel which, being stressed, may have any of the four registers, and be a mono- or diphthong. Optionally, one may have an unstressed **opening vowel** monophthong v_0 , and/or an unstressed **secundary syllable** with a pulmonic and a monophthong.

The possible word structures are named as follows:

¹Note that since a vowel preceding a click is always unstressed, this nasality will never be reported in the orthography.

Monosyllabic CV

Sesquisyllabic v.'CV

Disyllabic 'CV.Pv

Trisyllabic v.'CV.Pv

The opening and secondary vowels, being unstressed, may not carry registers, and no distinction of phonation is made on them. However, phonetically the nasality of an opening vowel necessarily matches that of a main syllable click which follows as per the rules of Section 1.3.2, and this nasality is accordingly transcribed even if not phonemic.

1.3.4 Irregular words and reduplication

Some special words break the patterns described thus far. A select few are lexicalised idioms and onomatopoeias. Most, however, are produced by one of the very few morphological processes of the language, which is **first-syllable reduplication**. This self-explanatory operation is used on adjectives and adverbs to mark comparatives, and on verbs to mark the applicative voice. The first syllable of the word is repeated, usually violating the word structure, exceeding the maximum number of syllable, and producing words with multiple clicks:

jila easily →**jijila** more easily

Reduplication is quite irregular on complex clicks. Todo: map out all irregular reduplications.

1.3.5 Sandhi rules

Todo

1.4 Notes on Orthography

The orthography of ‡a nùi is designed by prioritizing these guidelines:

- Transparency: pronunciation should be easy and immediate to evince and reproduce. In particular, clicks should be well distinguished from pulmonics.
- Phonemic: it should be unambiguous, i.e. broad transcription should be uniquely determined.
- Clarity: written text should be easily readable, avoiding too similar glyphs, or superscript and subscript glyphs.

Portability: no combining diacritical marks should be used; only existing precomposed letters may be employed. (This is due to combining glyphs rendering improperly in many contexts).

With these restrictions and no others, I believe the orthography as presented in the previous sections is a reasonable solution.

The orthography uses conventional punctuation and most typesetting standards². For what concerns capitalisation, for starting sentences or for proper names, I employ the typical Khoisan convention where the first *capitalisable* character in the word is capitalised. Capitalisable characters include all latin letters including diacritics, the letter η which becomes η^3 the letter η which capitalises as η the letter η the η the

²There is no risk of confusing the alveolar stop glyph! with the identical-looking, but distinct exclamation mark! because phonotactics prevent clicks in syllable codas anyway.

³The shape of capital Eng may be widely different in different fonts. Shouldn't be a cause of concern.

Chapter 2

Grammar

2.1 The Noun Phrase

A noun phrase in $\frac{1}{2}$ a $\hat{n}\hat{u}\hat{i}$ may consist of a single noun:

(1) unjaã wolf wolves / a wolf

in which case the intended meaning is indeterminate, and of unspecified number (i.e. wolves in general, as one would intend in a phrase like 'wolves are ferocious'). If instead one would like to talk about one specific wolf, thus introducing determinacy, they would have to say

(2) unjaã ţàa
wolf CLF_{predatory animal}
the wolf

tàa is called a **noun classifier** (CLF), and it is specifically the classifier associated to predatory animals. There are hundreds of classifiers available for various categories of nouns; these categories do not have to be disjoint nor as general as standard noun classes in synthetic languages. When a CLF is used, the CLF is itself the head of the noun phrase, and the noun is a dependent that *specifies* the general meaning of the classifier further (so the example may be translated more literally as 'the predatory animal which is more specifically a wolf'). This justifies why the CLF always follows the classified noun, being that this language is strongly head-final.

Multiple CLFs may apply to the same noun under different circumstances, with subtler or more relevant differences in intended meaning depending on the situation. Rarely, a CLF choice may completely disambiguate a noun:

- (3) **puli tła** mother/breast CLF_{woman} the mother
- (4) **şuli şùu** mother/breast CLF_{body part} the breast(s)

Proper names are always determined and they **always** take a classifier. However, the choice of specific classifier is again up to the speaker, and may express some nuances of context, politeness, and relevant information:

(5) N!upaṇa nui

N!upaṇa CLF_{person} N!upaṇa (a person of unspecified gender).

(6) N!upaṇa tła

N!upaṇa CLF_{woman}
N!upana (the woman).

A classifier is also triggered by numerals and partitives. When a numeral is used, the numeral is considered the head and the classifier its dependant, so the order is Noun-CLF-Numeral:

(7) **n!oo'o uṭu n‡oiči** chicken CLF_{bird} seven seven chickens.

As it happens in many languages, the numeral **!òo** *one* can be used to mark indeterminacy in situations where the presence of the classifier would be triggered anyway. For example:

(8) **Juli tla !òo** mother/breast CLF_{woman} one a mother (but **not** a breast)

To do all of this

2.1.1 Personal and Demonstrative Pronouns

2.1.2 Possessive and adjectives

2.2 Alignment and Coordination

‡a nùi is always syntactically ergative. For intransitive clauses, with a verb V and a sole subject S, the verb always precedes the subject. For example

(9) in||àa N!upaṇa tła

sleep N!upaṇa CLFwoman

'N!upaṇa is sleeping.'

In a transitive clause, involving a verb V, an agent A and an object O, the order is *fixed* as AVO:

(10) N!upaṇa tła i!òorri š!oiňe

N!upaṇa CLFwoman eat meat

'N!upaṇa is eating meat'

This rigid syntactical structure invites us to identify S and O as a single type of argument that always follows V, namely the Patient P, contrasting with agents A as a special role marked by preceding V. This syntactical alignment is therefore **ergative-absolutive** in nature. However, whereas a typical ergative language would provide a morphological way to mark Agents, i.e. an Ergative case, in $\frac{1}{2}$ $\frac{1}{$

(11) N!upaṇa tła ('a) i!òorri š!oiňe

N!upaṇa CLFwoman (ERG) eat meat

'N!upaṇa is eating meat'

This overt marking is rare and considerably formal sounding; in the modern language it still doesn't allow for changing the word order except in a few idioms.

A transitive verb may be employed intransitively by omitting the Agent.

(12) i!òorri š!oiňe

eat meat

'The meat is being eaten.'

It is, however, ungrammatical to instead omit the Patient. Equivalently, a (lone) sentence may never finish on a verb. If we wanted to express a meaning alongside the lines of 'N!upaṇa eats (nothing specific)', we would need to perform a valency-changing operation that shifts argument so as to fill the Patient slot. An antipassive, marked by the auxiliary uji, does the job:

(13) uji ilòorri Nlupana tla

ANTIP eat N!upaṇa CLFwoman

'N!upana is eating (nothing specific)'

We shall examine valency-changing operations in greater detail in Section 2.3.

We remark that it is possible to drop a repeated Patient in a coordinated clause, provided it is shared with a previous one. For example:

(14) !oono ji n‡uĩ 'utła noõ ‡aãṇi ‡u boy CLF_{child} kick ball CLF_{round tool} fly.away and 'The boy kicked the ball, and it flew away.

In cases like these, the post-conjunction $\dagger \mathbf{u}$ and is preferred to the (here) equivalent preconjunction 'ai and, and then because it prevents the clause from ending in a verb, though the second option would not be considered ungrammatical:

(15) !oono ji n‡uĩ 'utła noo 'ai ‡aãṇi boy CLF_{child} kick ball CLF_{round tool} and fly.away 'The boy kicked the ball, and it flew away.

It is not, however, possible to omit a shared Agent in coordinated clauses, or to omit a Patient to be replaced with another clause's Agent and viceversa. For example, in *'The boy kicked the ball and scored a point'* there is a shared Agent, and it is not possible to drop it in the coordinated clause in ‡a nùi like it is in English. A resumptive pronoun is necessary. And in *'The boy kicked the ball and smiled'*, the boy is A in the first clause and P in the second, meaning that the boy's second appearence may not be dropped. (All of these example may of course be expressed with coordination and drop provided the right valency-changing is performed to make sure the coordinated arguments are always two Patients).

This behaviour, which persists under all conditions, concludes the other side of $\dagger a$ $\eta \tilde{u}\tilde{i}$'s syntactical ergativity.

2.2.1 Secundativity and ditransitives

‡a ṇùĩ lacks a type of complement that may be described as 'Dative'. In a phrase involving a verb like *give* (**ditransitive verb**), which involves some *Donor* D giving a *Theme* T to a *Recipient* R, it is the Recipient which is treated as the direct object, while the Theme is placed in the instrumental (with postposition **ra**). For example

(16) U||'àa ku qoã ał||'i ra !oono ji
U||'àa CLF_{man} gift money INSTR boy CLF_{child}
U||'àa gifted money to the child. (lit. gifted the child with money.)

2.2.2 Causatives

Todo

2.3 Verbal voices

Let us reprise, more in detail, the schema of a ‡a nui verb phrase:

```
(Agent) Verb Patient (Oblique(s) + post.)
```

with no specific focus, now, on the word order. Used as such, a verb is said to be in **active voice**. When necessary, it is possible to redirect the arguments of the verb in different argument slots by employing a different verbal voice, marked by an auxiliary which goes before or after the verb. The simplest case, already seen, is the **antipassive**, only really sensible for a transitive verb, and formed by prepending **uji**; this is a *demotion* in the agency hierarchy, working in this manner:

In an antipassive sentence, the argument in agentive position (optional) has the meaning of causer, the one in patientive position (mandatory) has that of agent, and the instrumental oblique is the object. The purposes of this shift are several: it can be used to fill a patient gap, to express a transitive causative, or to relativize an agent (more on this in Section 2.4).

Some examples needed.

Antipassives may not be applied typically whenever an instrumental, especially in the role of theme, is present. A way to understand it is that instrumentals are part of the chain of agency described above, and the antipassive is attempting to demote the instrument to a position of lower agency that does not exist. I will describe shortly how to antipassivize a ditransitive, such as ' $U\parallel$ 'àa gave money to his mother' if we want to place $U\parallel$ 'àa in the Patient position.

Another widely employed voice is the **applicative**. This is marked by the **first-syllable reduplication** (see Section 1.3.4) of the verb and is used to *promote* an oblique (of various types) to a patient. The chain is

The applicative has thus some reminiscence of a passive, but it is restricted in that the original presence of an oblique argument to promote to patient is essential (it is ungrammatical otherwise). The applicative is a sacrifice of the information on the *type* of oblique, since the postposition is lost, in exchange for transitivity of the verb, which may be necessary for relativisation.

Here's an example involving an oblique with the postposition in over:

(17) **||aũpe U||'àa ku utłu'e iňi** walk U||'àa CLF_{man} path on U||'àa walks on the path

With the applicative, one may produce the **transitive** verb $\|\mathbf{a}\|$ a $\hat{\mathbf{u}}$ **per to walk on**:

(18) U||'àa ku ||a~ ||aũpe uthu'e U||'àa CLF_{man} APPL~ walk path U||'àa walks on the path

The ambiguity inherent in an applicative can be displayed by presenting an example of a different oblique, for example

2.4 Relative Clauses

Being a primarily left-branching, ergative language, $\dagger a$ \dot{n} \dot{u} \ddot{i} is severely restricted in which positions are accessible for relativisation, a limitation that is obviated with the use of the aforementioned voices.

Only the patient position may be relativised – meaning that the antecedent (the element that the relative clause describes) can only perform the role of patient in a relative clause. For example, amongst all these English examples

- 1. I saw the dog that was sleeping (Patient position)
- 2. I saw the dog that bit the cat (Agent position)
- 3. I saw the dog that my sister had gifted me (Instrumental position)
- 4. I saw the dog whose ears I find funny (Possessor position)

only the first can be translated *literally* into $\frac{1}{2}$ a $\frac{1}{2}$ $\frac{1}{2}$, since 'the dog' is Patient for the verb 'sleep' in that case. The other examples have to be reworked with voice changing.

A simple (Patientive) relative clause is not marked with any special grammatical particle. It is simply placed before the antecedent with its own Patient omitted, constituting part of its noun phrase, and thus placing the antecedent itself in Patientive place for the relative clause. This entire noun phrase may then occupy any role in the *main* clause. Here's an example where a main clause Patient is relativized, with the relative clause marked in [square brackets]:

Generally such a determinative relative clause may trigger drop of the classifier, and in this case **nui** may be omitted, as we will do from now on. Determinacy is implied automatically.

We may also have the antecedent as Agent in the main clause:

```
(20) [!a ‡q'ula 'ùa ] ŋàã l∥a e!uũ
[ 1S.ERG before meet ] woman see 1S.ACC
The woman I had met saw me.
```

Proceed on voice changing and other positions.

2.5 Serial Verb Constructions

To do

2.6 Imperatives and Polarity

To doo be doo

2.7 Interrogatives

To doo be doo

2.8 Topic-Comment

You guessed it

Chapter 3

Corpus

For texts

Chapter 4

Lexicon

4.1 Numerals

‡a nùi doesn't have a consistent way of expressing cardinal numbers larger than 24, and ordinals are even more severely under-developed, only rarely ever going as far as third. The stable numerals are reported as follows, with * marking rare forms. The derivational patterns that can be evinced from many of these numerals are varied and chaotic. The constructions - 'a !òo one from and - ‡a next after are used to create cardinals respectively one or more less than one with a simpler name, first-syllable reduplication may produce a number twice or thrice the original, and the almost unattested form of 22 seems to attempt a 'second after' construction from 20, which itself is unstable to being represented either as pèe digit or 'double ten', where 10 itself is alùuma hand (instead of it being assigned, more logically, to 5).

	Cardinal	Ordinal		Cardinal
1	!òo	‡a	13	ŋuũ ‡a
2	ทานนักล	!aaru	14	ŋuũ !aaru
3	e‡aaka	*njuũrru	15	š!o!q'oi
4	sı'e		16	nonoti
5	š!q'oi		17	nonoti ‡a
6	aňuũ		18	аňиũňи
7	n‡oiči		19	*pèe 'a !òo
8	noti		20	pèe (or *a!u!ùuma)
9	njaati		21	pèe ‡a
10	a!ùuma		22	*pèe !aaru
11	ŋuũ 'a !òo		23	*ŋuŋuũ 'a !òo
12	ŋuũ		24	ŋuŋuũ

4.2 Dictionary

In the following dictionary, we report words in the standard orthography and in broad IPA transcription (in particular, no tones nor stress are marked, since they are fully predictable).

- For nouns, we make suggestion of the most commonly used classifiers in [CLF ...].
- Some phrasal verbs are circumfixal, usually because they involve a lexicalized combination of a verb and a postposition. These are entered with dots ... to mark the space in which the Patient *and* the oblique must be inserted.

```
    1aõ - /|aõ/ • clf. orifices, bodily holes, openings, wounds
    1ila - /|ila/ • adv. easily
    1uli - /|uli/ • n. breast [CLF 1ùu] • n. mother [CLF ta]
    1oã - /|oã/ • Ditransitive verb (A) gift (T) to (P)
    1ûu - /|u:/ • clf. body parts
```

ıùupa - /|u:pa/ • pers.pr. 1.PL.INCL.ERG

 $1 \times i - \sqrt{|\chi_{i}|} \cdot n$. cloak

!'ina - /!¹ina/ • *n*. boat

!'uulu - /!'u:lu/ • v.tr. bite • v.intr. feel pain, especially itching of the skin

!a - /!a/ • pers.pr. I (ERG), me, to me

!aala - /!a:la/ • post. under, below • post.
moving by means of, travelling by • n.
palm (of hand), sole (foot)

!auṭa - /!auṭa/ • pers.pr. Us, excluding you (ERG)

!oi - /!ɔi/ • post. for the benefit of, for the
purpose of giving to • post. for the purpose/with the intent of going to, travelling to, or moving towards

!ooja - /!ɔ:¡a/ • preverb IMP.NEG

!oono - /!ɔːn̪ɔ/ • n. boy [CLF nui,ji]

!oorro - /!ɔ:rrɔ/ • n. urine [CLF $\dagger u\tilde{u}$] • v.intr. urinate

!òo - /!ɔː/ • card.num. one, non-plural
• adj. lone, alone, unaccompained, unpaired

!òotło - /!ɔːt͡fɔ/ • n. vulva

!q'aati - /Îq'a:t͡si/ • refl.pr. self

!q'ao - /Îq'aɔ/ • n. clock

!uuli - /!u:li/ • n. celebration, party

!uũ!oi - /!ũ:!ɔi/ • *N/A* hello, hi

!uũňa - /!ũ:na/ • n. rain

!uũňi - /!ũ:ni/ • pers.pr. 2.S.ACC

!uūṭa - /!ū:ṭa/ • pers.pr. 2.PL.ACC

!xaje - $\sqrt{!}\chi$ aje / • v.tr. open

!xatle - $\widehat{/!}\chi$ atle/ • *clf*. blades, things with a sharp edge, teeth

!xòo - $\widehat{/!}\chi$ o:/ • pers.pr. you and I

 $\frac{1}{4}a - \frac{1}{4}a / \bullet$ ord.num. first

‡a‡xàa - /‡a∓̂χa̞:/ • *v.tr.* snap, break (especially crack) in half

‡aãṇi - /‡ã:ṇi/ • ν. flee

‡oipe - /**‡**ɔipe/ • adv. maybe.not

 $\phi = -\frac{1}{2} - \frac{1}{2} = \frac{1}{2} - \frac{1}{2} = \frac{1}{2} =$

‡ootṣi - /**‡**ɔː͡γsi/ • *n*. mountain

 $\dagger \tilde{\mathbf{o}} \tilde{\mathbf{o}} - / \dagger \tilde{\mathbf{j}} : / \bullet \mathit{clf}$. lid

 $\frac{1}{4}$ **q'a** $\tilde{i} - \sqrt{\frac{1}{4}}$ **q'a** $\tilde{i} / \bullet v$. know

 \neq **q'ula** - $/\neq$ **q'ula**/ • *adv*. before • *n*. (anatomy) back, spine, buttocks

 $\neq \mathbf{u} - / \neq \mathbf{u} / \bullet conj.$ and

†ùũ - /**†**ũ:/ • *clf*. liquids, drops, rain, beverages

+xàa - $/+\chi$ a:/ • *v.tr.* hit, strike with a loud sound • *v.tr.* damage, hurt, offend

 $+x\hat{a}u^{2}a - \sqrt{+\chi_{a}u^{2}a} - n$. effort, strain, force

 $+xoita - /\widehat{+}\chi$ pita/ • *adj.* strange

 $+ xo\tilde{i} - / + \chi o\tilde{i} / \bullet post.$ through $\bullet post.$ across

||'u - /||'u/ • *Ditransitive verb* give, provide, (A) give (T) to (P)

 $\|\mathbf{a\tilde{u}pe} - /\|\mathbf{a\tilde{u}pe} / \bullet n$. foot [CLF 1\hat{u}u] $\bullet v.intr$. walk

||òi - /||ɔi/ • *N*/*A* NEG

 $\|\mathbf{q}'\mathbf{ooňa} - /\|\mathbf{q}'\mathbf{oija}/ \bullet n$. crab $\bullet n$. lobster

'a - /?a/ • post. ERG • post. ABL, coming from, originating from, created by, moving away from

'ai - /?ai/ • adv. and (for clauses) • adv.

Back then, in that time, once upon a time

'ai 'ai - /?ai ?ai / • conj. and thus, and as a eł ||xa - /eł ||xa / • n. conflict, discussion, disconsequence, and immediately after

'ào - /?aɔ/ • n. water [CLF ‡ùũ]

'èe - /?e:/ • post. PTV

 $\mathbf{u} - /\mathbf{u} / \bullet post.$ of

'urri - /?urri/ • clf. timespans, events in time, occurrences, dates, appointments

'utła - /?utła/ • n. playing ball [CLF noo]

'ùa - /?ua/ • v.tr. (someone) meet, make acquaintance of, get to know, greet, receive

age - $/a|e/ \bullet clf$. objects and phenomena in the sky, stars, the sun, the moon, comets, clouds, rainbows, sunrises and sunsets, eclipses, etc.

a!ùuma - /a!u:ma/ • n. hand • card.num. ten

a‡'**ui** - /a‡'ui/ • *clf*. wooden

ał||'i - /ał||'i/ • n. money

an!xòo - $/\tilde{a}^{ij}!k\mathfrak{g}!/\bullet pers.pr.$ me and you

 $an \neq ai - /\tilde{a}^{\eta} \neq ai / \bullet adj$. every

aňuũ - /anũ:/ • card.num. six

aulq'o - /aulq'o/ • v.tr. peel, scrape or remove a covering, protective layer, film, piece of clothing

ča - /t∫a/ • conj. while

čèe - /t∫e:/ • n. column

čìiči - $/\hat{t}$ (i: \hat{t} (i) • v. shine

e!'ani - /e!'ani/ • v. sing

e!u $\tilde{\mathbf{u}}$ - /e! $\tilde{\mathbf{u}}$:/ • pers.pr. me (ACC), to me

eluuta - /eluita/ • pers.pr. 1.PL.EXCL.ACC

e‡aaka - /e‡a:ka/ • card.num. three

agreement, verbal fight

eňa - /ena/ • v.tr. surrender (smth.), let go of, unwillingly offer

ete - /etse/ • N/A when

i₁'ali - /i|'ali/ • n. barrier

i; \mathbf{i} ; \mathbf{i} - $/\mathbf{i}$ | \mathbf{i} /• clf. small animal

i!òorri - /i!ɔːrri/ • v. eat

i||ùuṇa - /i||uːṇa/ • post. about

ił∥ui - /ił∥ui/ • n. milk [CLF ‡ùũ]

in||àa - $/\tilde{1}^{\eta}$ ||a:/ • v.intr. sleep

in $\|\mathbf{o}\mathbf{i} - /\tilde{\mathbf{i}}^{\eta}\|\mathbf{o}\mathbf{i}/\bullet v$. say

iňi - /ini/ • post. over, on top of, above • *n*. head

iš!uka - /iš!uka/ • *N/A* the very same

ja - /†a/ • pron. 1S.INTR

jata - /tata/ • pers.pr. 1.PL.EXCL.INTR

jèeňi - /¡eːni/ • N/A this

ji - /†i/ • clf. child

jipa - /ɨjipa/ • n. hare

jùu - /juː/ • n. sun [CLF aje]

jùũ - /ţũ:/ • v.tr. surround, circle, flank, in either threatening or protective manner

ku - /ku/ • *clf*. male adult

kuňe - /kune/ • *adv*. simply

looni - /lɔ̃:ni/ • adj. warm, warming • n. warmth • adj. sensual, seductive, comforting

 $\frac{1}{a} - \frac{1}{a} = v.tr.$ see

ł∥au'i - /**ł**∥au?i/ • *adj.* graceful, delicately beautiful

maã - /mã:/ • clf. meteorological pheno- nui - /nui/ • clf. persons, people, humenon

mau - /mau/ • v.intr. talk • v.intr. (O) act like (A), makes decision or behaves according to what is expected of (A)

nıaati - /"|a:t͡si/ • card.num. nine

njaãni - /¹¹|ãːni/ • n. air

njai - /¹|ai/ • post. behind

njuũna - /"|ũ:na/ • card.num. two

njxeeňa - /¹Ĵʁeːna/ • n. message, communication

n!'oire - /ⁿ!'pire/ • ν . decide

n!ai - /^ŋ!ai/ • adj. similar to, akin to

n!àa - /¹¹!a:/ • n. fire

n!oo'o - /^ŋ!ɔ:?ɔ/ • *n*. chicken

n!òõ - /¹¹!ɔ̃:/ • n. North

n!xàa - /¹¹!ka:/ • post. inside

 $n \neq a\tilde{a} - / \eta \neq \tilde{a} : / \bullet \nu$. complain

n‡oiči - /¹¹‡ɔit͡∫i/ • card.num. seven

 $\mathbf{n} + \mathbf{\tilde{o}\tilde{o}} - \mathbf{\tilde{o}} + \mathbf{\tilde{o}} = \mathbf{\tilde{o}} - \mathbf{\tilde{o}} + \mathbf{\tilde{o}} = \mathbf{\tilde$

 $\mathbf{n} + \mathbf{u}\tilde{\mathbf{i}} - \sqrt{\eta} + \mathbf{u}\tilde{\mathbf{i}} / \bullet \mathbf{v}$. kick

 $\mathbf{n} \| \mathbf{a}' \mathbf{a} - \mathbf{n} \| \mathbf{a} \| \mathbf{a} \| \mathbf{a} \| \mathbf{n}$. gold

 $\mathbf{n} \| \mathbf{oi} - \mathbf{v} \| \mathbf{oi} \| \mathbf{oi} \cdot \mathbf{v}$. can

 $n \| otso - \sqrt{\eta} \| otso / \bullet n$. door

 $\mathbf{n} \| \mathbf{\tilde{o}} \mathbf{\tilde{o}} - \mathbf{\tilde{o}} \| \mathbf{\tilde{g}} \mathbf{\tilde{o}} \mathbf{\tilde{o}} \mathbf{\tilde{o}}$. descend

 $\mathbf{n} \| \mathbf{x} \hat{\mathbf{o}} \mathbf{i} - \mathbf{j} \| \mathbf{x} \hat{\mathbf{o}} \mathbf{i} / \mathbf{v}$. remove

nàã - /nã:/ • v. laugh

 $\mathbf{no\tilde{o}} - /\mathbf{n\tilde{o}}$: $/ \bullet clf$. round tools, round instruments, artificial balls, spheres, globes, round toys

noti - /nɔtsi/ • card.num. eight

mans, personified entities, individuals, animate

nuũ - /n̥ũː/ • adv. more

naũ - /ηaũ/ • conj. but

nùĩ - /nuĩ/ • clf. spoken word

ηàã - /ηãː/ • n. woman

nèe - /ne:/ • n. evening, time of sunset [CLF 'urri] • n. sunset (the process of sun setting)

ημũ - /ηῦː/ • card.num. twelve

o!'o - $/3!^2$ 3/ • v.intr. arrive (among others), join (Dat), meet up with others (Dat)

o!ao - /ɔ!aɔ/ • adj. old

o!xòoji - $\sqrt{2}$ $\sqrt{2}$ $\sqrt{1}$ $\sqrt{1}$ $\sqrt{2}$ $\sqrt{2}$ unable to move or act

 $o!xu - \sqrt{o!}γu/ • n$. walking cane

on|'a - $/\tilde{\mathfrak{I}}^{\eta}$ |'a/ • ν . envelop

pau - /pau/ • adj. abundant

po - /pɔ/ • *n*. lips (of the mouth) [CLF ¡ùu] • n. mouth, oral cavity [CLF 1ao]

ra - /ra/ • post. INSTR

si'e - $/s|^2e/$ • card.num. four

sı'i - $/s|^2i/ \bullet clf$. slender

saau - /s|au/ • adj. strong

š!o - /š!ɔ/ • Copulative verb be temporarily, be contingentially

š!oiňe - /š!oipe/ • n. meat

š!o ... iňi - /š!ɔ ... ipi/ • ν . (smth) be over, be on top of $\bullet v$. (actions & events) be involved in, act in, perform, be busy with • v. lie on, lay down on, cover **š!o ku** n+òo ini he is lying on the bed

š!q'oi - /š**!**q'oi/ • card.num. five

ș‡aaňi - /ș‡a:ni/ • n. vagabond

 $\mathbf{s} \neq \mathbf{q'o} - \mathbf{s} \neq \mathbf{q'o} / \bullet n$. neck

 $s \neq u\tilde{u} - /s \neq \tilde{u}$: $/ \bullet n$. knife [CLF !xatle]

 $\$ + xa - /\$ + \chi a / \bullet n$. human being, person

tła - /tła/ • clf. adult women

tłìi - /tłiː/ • preverb COND

tsùu - $\sqrt{\text{tsu}}$: / • v.tr. throw, launch • v.tr. produce, spit out, blow, excrete

tșe - /tse/ • n. peak

tṣui - /͡ʈsui/ • n. nose

tàa - /taː/ • clf. predatory animals, carnivores

tèe - /teː/ • *clf*. articles of clothing, cloth, shoes

tuma - /tuma/ • adj. great, awesome

tura - /tura/ • adv. suddenly

u;'**ule** - /**u**|'²**ule**/ • *v*. create, make, build, manufacture

u!'ui - /u!'ui/ • pers.pr. 2.ERG

u!oõ - /u!ɔ̃:/ • *n*. year

u!q'a - $/u!q'a/ \bullet n$. wind [CLF maã]

 $\mathbf{u}!\mathbf{x}\mathbf{\tilde{a}\tilde{u}} - /\mathbf{u}!\mathbf{\tilde{y}}\mathbf{a}\tilde{u} / \bullet v$. concern

 $\mathbf{u} + \mathbf{u} \cdot \mathbf{n} = -\mathbf{u} + \mathbf{u} \cdot \mathbf{n} = -\mathbf{u} \cdot \mathbf{n}$

uči - /utsi/ • pers.pr. 2.INTR

uji - /u₁i/ • preverb ANTIP

uma - /uma/ • pers.pr. 1.PL.INCL.ABS

unţaã - $/\tilde{\mathbf{u}}^{\eta}$ |ã:/ • n. wolf [CLF tàa] • adj. (of a person) unpredictably aggressive, pugnacious, cruel, dangerous

unıu - $/\tilde{\mathbf{u}}^{\eta}|\mathbf{u}/\bullet adv$. truly

un‡àaki - /ũ^ŋ‡a:ki/ • v.intr. (S) climb

un†oi - $/\tilde{\mathbf{u}}^{\eta}$ **†**oi/ • *n*. language, way of speaking

 $\mathbf{un} \neq \mathbf{\hat{u}u} - /\tilde{\mathbf{u}}^{\eta} \neq \mathbf{\underline{u}} = rel.pr.$ which.ERG

upa - /upa/ • preverb SUBJ

uš!uupa - /uš!u:pa/ • v. re-organize

utłu'e - /utłu?e/ • n. walking path, paved path, dirt road • n. groove, incision, indented strip

uţu - /uţu/ • clf. bird