# THE PRACTICAL

# ‡A ŅÙĨ

ON PHONOLOGY, GRAMMAR,

AND THE PREVENTION OF MOUTH INJURIES.

BY CANCRIZANS CANON

#### 0.1 Overview

#### !Um!oi!

('Hello!')

While an original creation, the sound of ‡A 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 's phonation-tone register system is similar to that of Burmese.

For what concerns grammar,  $mathbb{4}$ A 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  $\ddagger A$ . 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*<sup>1</sup> 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 ‡A 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.

<sup>&</sup>lt;sup>1</sup>Something to do with power and wheelchair ramps?

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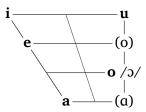
# **Chapter 1**

# **Phonology**

‡A 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 glottalic (creaky, glottalised, or ejective), 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

We anticipate that ‡A has a concept of *stress* or *accent* whereby one syllable in a polysyllabic word (and occasionally in a syntactically close word sequence, like a noun phrase) is marked as **stressed**. This stress is expressed mostly through vowel length and in minor part volume, but not pitch.

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  $\mathbf{i}$ . The nasal forms of  $\mathbf{u}$  are special in that the nasalisation and lip closure are strong enough that they are better transcribed as a syllabic /m/:

\*
$$u\tilde{u} \rightarrow um \rightarrow /m/[m]$$
  
\* $u\tilde{u} \rightarrow um \rightarrow /m/[m]$ 

Degrees of rounding of such syllabic /m/ are usually inconsequential.

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 (with the caveat that  $*\tilde{\mathbf{u}}$  is replaced by  $\mathbf{m}$ ). The resulting table of vocalic phonemes is as follows:

	Unstressed (always short)											
<b>a</b> /a/	<b>e</b> /e/	i /i/	o /ɔ/	<b>u</b> /u/								
Stressed												
P	lain	Nasal	Creaky	Nasal Creaky								
Short	Long	140301	Greaky	rvasar Greaky								
<b>a</b> /a/	<b>aa</b> /a:/	aã /ãː/	<b>àa</b> /a̞ː/	<b>àã</b> /ãː/								
<b>e</b> /e/	ee /e:/ iĩ /ĩ:/		<b>èe</b> /e̞:/	<b>ìĩ</b> /ĩ:/								
i /i/	<b>ii</b> /i:/	11 / 11/	ìi /iː/	11 / 11/								
<b>o</b> /ɔ/	00 /ɔː/	oõ /ɔ̃:/	<b>òo</b> /ɔ̞ː/	òõ /ɔ̃ː/								
<b>u</b> /u/	<b>uu</b> /u:/	<b>um</b> /m:/	<b>àa</b> /u̞:/	<b>ùm</b> /mː/								
	au /au/	am /ãm/	<b>àu</b> /a̯u̯/	<b>àm</b> /ãm/								
	<b>ui</b> /ui/	uĩ /mĩ/	<b>ùi</b> /u̯i̯/	ùĩ /mຼĩ/								
	oi /ɔi/	oĩ /õĩ/	<b>ì</b> i̯ / <b>ió</b>	<b>ò</b> ĩ /ɔ̃ī/								
	same for	the remaini	ng diphtho	ongs without <b>u</b>								

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

The consonant phonemes of  $\dagger A$  are divided mainly by airstream mechanism into **ejectives**, **pulmonics** and **clicks**. They are all presented in the table that follows; the rest of this section will be dedicated to explaining its contents.

Cells in grey are unattested in  $\frac{1}{7}$ A or impossible. Cells spanning multiple rows or column denote degrees of allophonic variation.

		Labial	Dental	Apical	Palatal	Lateral	Velar	Uvular
Ejective				ţ' /ţ'/	c'	tł' /tł'/		q'
	Stop	p	<b>t/ts</b> /t͡s̞/	<b>t</b> /t/	<b>j</b> / <del>j</del> /	<b>tł</b> /t͡ᠯ/	k	
	Affricate		t/ <b>ts</b> / ts/	<b>tṣ</b> /͡ʈʂ/	<b>č</b> /t͡ʃ/	<b>u</b> / u/	K	
Pulmonic	Trill			<b>r/rr</b> /r/				
	Nasal	m	<b>n</b> /n̯/	<b>ņ</b> /ŋ/	ñ/n/	1	<b>ŋ</b> /ṛ	) ~N/
	Glot. Stop				'/?/			
	I	0	ı	!	ŧ			
	II		1'	!	<b>‡'</b>	'		
	III		ĵх	!x	‡x	x		
	IV		1q'	!q'	‡q'	∥ <b>q</b> '		
Click	V	NΘ	NĴ	n!	N‡	Ν∥		
GIICK	VI		nj'	<b>n!</b> '	N‡'	n∥'		
	VII		хұи	n!x	N‡X	n  x		
	VIII		<b>S</b> J	š!	ș‡	ł		
	IX		sı,	š!'	ș‡'	<b>ł∥'</b>		
	X		std,	š!q'	ș‡q'	ł∥q'		

#### 1.2.1 Ejectives

Consistently with the language-wide pattern of distinction of degree of glottalisation,  $\ddagger A$  distinguishes a few ejective phonemes, all of which but  $\mathbf{q}$  are actually uncommon. Frontal (labial or dental) ejectives do not exist. The next three ejectives  $\mathbf{t}$ ,  $\mathbf{c}$ ,  $\mathbf{t}$  parallel the pulmonic obstruents. [\*k'] is notably missing; it is generally understood that this sound has merged into the palatal  $\mathbf{c}$ .

The uvular **q**' is *always* ejective, with no pulmonic counterpart. It originates from the lenition of clicks with ejective contour (class IV) where the click itself vanished leaving behind the lone uvular ejective.

#### 1.2.2 Pulmonics

It is useful, not only for the purpose of phonotactics, to classify pulmonics in terms of nasality. Specifically, we divide into **oral pulmonics** (obstruents and the trill), the **nasal pulmonics** (actual nasal and 1), and finally the glottal stop has to be put aside as neither oral nor nasal<sup>1</sup>. It's necessary to imagine that *phonemically* /l/ be a nasal consonant, even though phonetically it often is not, and in particular the nasal counterpart to /tl/. This allows, for example, to explain sequences such as  $la\tilde{a}$  tongue, whereas anywhere else an oral pulmonic + nasal vowel sequence is forbidden (see Section 1.3.2).

The dentals are usually "strongly dentalised", often going as far as interdental, similarly to the situation in Australian Aboriginal languages, though this is not usually marked in transcription. 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**.

 $\mathfrak{g}$ , while rare, is a true phoneme, and may also appear word-initially, see  $\mathfrak{g}$  a woman vs  $\mathfrak{g}$  and it must be seen as the nasal counterpart to  $\mathfrak{k}$ . Before front vowels it's always velar; before back vowels it alternates between velar  $/\mathfrak{g}/$  and the uvular allophone  $[\mathfrak{n}]$ .

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].

<sup>&</sup>lt;sup>1</sup>This is true in a more literal sense: since the glottis is behind the velum, a glottal closure is really insensitive to the lowering of the velum.

- /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.
- $\sqrt{ts}$  is only very rarely a simple voiceless stop [t], and it almost always is affricate.

#### **1.2.3** Clicks

‡A '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**. In ‡A the rear contact is *tendentially* 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, akin 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  $\frac{1}{2}$ A (plus the rare bilabial):

- /|/, written 1, is laminal dental. The sound is noisy and highest in pitch.
- | is lateral. The release is lateral (typically only 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. The release is coronal, and usually palatal or palato-alveolar [‡]; 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  $\frac{1}{2}$  may even be more similar to a retroflex click [!!] with subapical tongue position.
- The much rarer bilabial click  $\odot$ . It usually begins as labial and moves to labiodental, and has a loud, very noisy sound. A very limited set of manners of articulation is attested for  $\odot$ , and it appears only in very few words. It likely originates from strong labialisation of other clicks.

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  $[\chi]$ . The frication is usually quite strong and raspy, granting these clicks 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 strong 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  $\ddagger A$  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 /\$|/, /\$|/, /\$|/. The point of articulation of the fricative matches roughly with that of the frontal closure, but specifically in /\$|/, /\$|/, the configuration of the tongue tip is *opposite* that of the click; respectively switching from apical to laminal and laminal to apical. In a sense, the fast articulation of these prefricative clicks is agevolated by the momentum from this motion, which is mantained into the lingual motion to articulate the click. The "crossed" /\$|/, /\$|/ involve a continuous, snake- or whip-like motion of the tongue, while the non-existent "direct" alternates /\*||/\*|/, would be considerably more awkward.

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, + 2 marginal bilabials exist:

Manner	Point of articulation									
I	/ /	/ <del>‡</del> /	/!/	/  /	(/0/)					
II	/ ²/	/ <del>‡</del> <sup>?</sup> /	/! <sup>?</sup> /	/  ²/						
III	$\widehat{/ \chi}$	$/\widehat{\dagger}\chi/$	$/\widehat{!}\chi/$	$/\widehat{\parallel}\chi/$						
IV	/ q'/	/ <del>‡</del> q'/	/ <u>!q</u> '/	/  q'/						
V	/ <sup>1</sup> ) /	/ŋ <del></del> ‡/	/ŋ!/	/ŋ  /	(/ŋO/)					
VI	\n 3/	\n\\\\\19\\\\	\n! <sub>3</sub> \	\n\ \_3\ \_3\						
VII	$\sqrt{ij}$ R $\setminus$	$\lambda_{ij} = R \lambda$	\alpha_i]R\	$\lambda_{ij}$ R $\lambda$						
VIII	/s̞ /	/§‡/	/ʃ!/	/ <b>4</b>   /						
IX	/š  <sub>3</sub> /	/§‡³/	\[ \]! <sup>2</sup> \	/ <del>1</del>    <sup>2</sup> /						
X	/sjq'/	/ş <del>+</del> q'/	/ʃ!q'/	/\full \wideta \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  $3\times 4$  table that results makes it clear that all combinations except two are realised:

		Release							
		Ø							
it .	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 production. 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 speakers.

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

Phonemic	Orthography
	1
ŋ*	N*
ន្ទ	s1
§ <del>‡</del>	ș‡
ſ!	š!
4	ł∥
*?	*,
$\underbrace{{}_*d}_{*X} \setminus \underbrace{{}_*F}_{*R}$	*x
*q'	* <b>q</b> '

### 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
C	Any consonant phoneme – click, ejective or pulmonic.
K	Any click consonant.
P	Any pulmonic consonant.
M	A sonorant consonant (nasal or trill).
V	Any vowel, mono- or diphthong, stressed or unstressed, in any register
I	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) and the ejective  ${\bf q}$ '. Specifically, uvular articulations cause retraction of the tongue root, which makes it impossible to pronounce a front vowel directly after. In  ${\bf +A}$ , all clicks  ${\bf O}$   ${\bf 1}$ !  ${\bf +}$  have uvular rear closure, and thus really release uvularly and cause tongue root retraction.

This back vowel constraint applies to

- q'
- All non-glottalised clicks. (i.e., all groups except II and VI).

Glottalised clicks bypass the constraint because the glottal closure can be released with sufficient delay for the tongue to prepare in position for a front vowel, as in si'e four.

A backening consonant may not be followed by a front vowel e or i. In addition, a becomes [a]. 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 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.<sup>2</sup>
- in a PV sequence, P cannot be oral if V is nasal.

E.g.: the sequences /a!-/ and / $\tilde{a}^{\eta}$ !-/ are possible, but /\* $\tilde{a}$ !-/, /\* $a^{\eta}$ !-/ 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 /!²a/ and /!a/ are not phonemically distinct by convention we will transcribe the click without glottalisation. On the same line, ejectives and pulmonic obstruents are not distinguished before V, and we transcribe with the pulmonic by convention, except in the case of q' since it has no pulmonic equivalent.
- 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:

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

<sup>&</sup>lt;sup>2</sup>Note that since a vowel preceding a click is always unstressed, this nasality will never be reported in the orthography.

In other words, we necessarily have a **main syllable**  $CV_1$  which always stressed, and is composed of either a click, an ejective 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:

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:

**µaala** easily →**µaµaala** more easily

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

#### 1.3.5 Sandhi Rules

Adjacent words that are syntactically close (generally, they are part of the same noun phrase, they are a noun-classifier pair, a dependant-postposition pair, an auxiliary-main verb pair, or simply part of a very short clause) are usually pronounced with no gap between them and are affected by **syntactical sandhi rules**. These are assimilatory processes involving the vowel V that ends the preceding word, and the first sound of the following word. Depending on the latter, one may have vowel-click (VX), vowel-vowel (VV), and vowel-pulmonic (VP) sandhi. Sandhi processes are never written in the orthography.

**VX sandhi** consists simply in V assimilating to the nasality of X, similarly to what would happen mid-word. This nasality will only be triggered if V is unstressed.

In **VV sandhi**, the second vowel is an opening vowel and therefore always unstressed. Quality assimilation occurs according to the following scheme:

- if the first vowel is a diphthong, there is no assimilation and an epenthetic ' is inserted.
- if the sequence VV describes a valid diphthong, assimilate to that diphthong.
- a-e and o-e assimilate to ai and oi respectively.
- o-u assimilates to oo
- In all remaining cases (e.g. **u-a**) there is no assimilation and ' is inserted.

If there is assimilation, then the first vowel determines the register.

Todo

## 1.4 Notes on Orthography

The orthography of A 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 standards<sup>3</sup>. 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  $\eta$  which becomes  $\Pi^4$  the letter  $\eta$  which capitalises as  $\Pi$ , the click nasality letter  $\Pi$  which simply becomes  $\Pi$  in uppercase; and the remaining letters ('  $\Pi$  !  $\Pi$ ) don't capitalise. Finally, the alphabetical order employed is as in the following table:

<sup>&</sup>lt;sup>3</sup>There 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.

<sup>&</sup>lt;sup>4</sup>The shape of capital Eng may be widely different in different fonts. Shouldn't be a cause of concern.

Lowercase	1	0	,	1		,	a	ã	à	b	С	č	d	e	è	i	ĩ	ì	j	k	1					
Uppercase	T	0	9	9	0	0	0	•	†			A	Ã	À	В	С	Č	D	E	È	I	Ĩ	Ì	J	K	L
Lowercase	ł	m	n	ņ	ñ	ŋ	О	õ	ò	p	q	r	s	š	ș	t	ţ	u	ũ	ù	x					
	İ	M	N	N	Ñ	ŋ	o	Õ	2	P	_	R	S	č					_~_		X					

# Chapter 2

# Grammar

#### 2.1 The Noun Phrase

A noun phrase in  $\downarrow A$  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<sub>predatory animal</sub>
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) **Juli tła** mother/breast CLF<sub>woman</sub> the mother
- (4) **Juli Juu**mother/breast CLF<sub>body part</sub>

  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<sub>person</sub> N!upaṇa (a person of unspecified gender).

#### (6) N!upaṇa tła

N!upaṇa CLF<sub>woman</sub>
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<sub>bird</sub> 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<sub>woman</sub> one a mother (but **not** a breast)

To do all of this

#### 2.1.1 Possession and adjectives

#### 2.1.2 Nominalisation

## 2.2 Alignment and Coordination

#### (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!oiñe

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 ‡A this does not usually occurr; the optional ERG marker 'a by, from (which may equivalently also mark an Ablative) can be employed in special emphatic conditions (see Section 2.9):

#### (11) N!upaṇa tła ('a) i!òorri š!oiñe

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!oiñe

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<sub>child</sub> kick ball CLF<sub>round tool</sub> fly.away and 'The boy kicked the ball, and it flew away.

In cases like these, the post-conjunction **†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 'utla noo 'ai ‡aāṇi boy CLF<sub>child</sub> kick ball CLF<sub>round tool</sub> 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 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  $\dagger A$  's syntactical ergativity.

#### 2.2.1 Secundativity and ditransitives

‡A 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 10ã al||'i ra !oono ji
U||àa CLF<sub>man</sub> gift money INSTR boy CLF<sub>child</sub>
U||àa gifted money to the child. (lit. gifted the child with money.)

#### 2.2.2 Causatives

A **causer** of an action is seen as a "super-Agent", i.e. an argument placed even higher in a hierarchy of agency. If an agent is already present, the causer is placed in **ablative (ABL)**, which is to say paired with the postposition 'a. Usually the ABL argument, both in the sense of causer and of literal ablative (motion from), is placed before the verb and

possible agent, but its position in the sentence is somewhat more free than the closer arguments.

(17) U||àa ku 'a N!upaṇa ||àa n‡uĩ 'utła noõ U||àa CLF<sub>man</sub> ABL N!upaṇa CLF<sub>young woman</sub> kick ball CLF<sub>round tool</sub> U||àa made N!upaṇa kick the ball.

However, in the absence of another true agent, the distinction between agent and causer is usually unimportant. Placing for example an argument in agentive position for an intransitive verb already communicates a meaning of causation:

(18) U∥àa ku in∥àa Q'oaṇùu tła
U∥àa CLF<sub>man</sub> sleep Q'oaṇùu CLF<sub>young woman</sub>
U∥àa made Q'oaṇùu sleep. (lit. he slept her)

and, as seen before, forcing the argument into ablative position marks either a stronger emphasis for causation / volition, or focus for that argument (see again Section 2.9). For example:

(19) in||àa Q'oaiùu tła U||àa ku 'a sleep Q'oaiùu CLF<sub>young woman</sub> U||àa CLF<sub>man</sub> ABL

It was U||àa that made Q'oaiùu sleep / Q'oaiùu slept because of U||àa

#### 2.3 Verbal voices

Let us reprise, more in detail, the schema of a A verb phrase, with optional dependants in round brackets:

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 2.5).

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 ini over:

(20) ||aupe U||àa ku utl'e iñi walk U||àa CLF<sub>man</sub> path on U||àa walks on the path

With the applicative, one may produce the **transitive** verb  $\|\mathbf{a}\|$  a  $\hat{\mathbf{u}}$  **potentially** *to walk in, into, with...*):

(21) U||àa ku ||a~ ||aũpe utł'e U||àa CLF<sub>man</sub> 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

examples

#### 2.4 Pronouns

#### 2.4.1 Personal Pronouns

Exceptional within the language, the 1st and 2nd person pronouns are inflected, simultaneously for role (case), number, and clusivity.

PNC	Refers to	ERG	INTR	ACC		
1SG	Just the speaker	!a	!a ja			
1DU	The speaker + one addressee	!xò	an!xòo			
1PL.INCL	Speaker + addressee + others	ıùupa	ıùupa ùu			
1PL.EXCL	Speaker + others (no addressee)	!auṭa	jaṭa	e!uũṭa		
2SG	Only one addressee	u!'ui	uči	!uũñi		
2PL	Addressee(s) (+ others)	u; ui	uci	!uũṭa		

When used as the argument of an intransitive clause or a copular clause, a personal pronoun takes the INTR case. If it's the agent of a transitive clause or the dependant of the proposition 'a it takes the ERG. In all other situations, meaning when used as the object of a transitive clause or as dependant to any other postposition, it takes ACC. This implies that morphologically the language effectively has **tripartite alignment** in the first and second person (and, more precisely, nominative-accusative for 1DU and ergative-absolutive for the 1PL.INCL). Since the optional causative-ergative marker 'a can be seen as a kind of (weak) morphological ergative marker that can instead be used on the 3rd person, one could argue that ‡A is morphologically split-ergative, with the split occurring between the 2nd and 3rd person, while remaining always syntactically ergative<sup>1</sup>.

#### Classifiers are the 3rd person pronouns

Noun classifiers double as 3rd person pronouns. These are uninflected by case and number (though they may be optionally specified by an explicit numeral, identically to noun phrases). However, if one wants to reference a previously introduced noun that was determined by a classifier, one ought to use the same identical classifier as a pronoun. For example, if we refer through the noun phrase **n!upaṇa nui** *n!upaṇa CLF*<sub>woman</sub>, it would be considered ungrammatical then to later employ **tła** *CLF*<sub>woman</sub> with the same referent.

example

#### 2.4.2 Demonstrative Pronouns

todo

#### 2.5 Relative Clauses

Being a primarily left-branching, ergative language, ‡A is severely restricted in which positions are accessible for relativisation, a limitation that is obviated with the use of the aforementioned voices.

<sup>&</sup>lt;sup>1</sup>Minus the unnecessity of explicit case-marking, this is analogous to the alignment system of Dyirbal.

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**, 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:

```
(23) [!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.

#### 2.6 Serial Verb Constructions

‡A allows some kinds of **Serial Verb Constructions** (SVCs), whereby two or more verbs are chained together with no linking element in a single clause. Some of them are lexicalised (for example **uji** ... for the antipassive), in which case they can be understood better as auxiliary verbs, though fundamentally the spirit is that of SVCs, which are productive.

In the simplest kind of SVC two intransitive verbs are chained together sharing a patient – this is called **intransitive patientive SVC**. The resulting combined intransitive verb has

the meaning of performing the first action so that the second action may *follow*, either just temporally or also causally. While not necessary, the first verb is usually one of motion. A practical example:

(24) ‡aã in∥àa ṇàã ‡'a
go sleep eland CLF<sub>large herbivores</sub>
The eland went to sleep (went so it could sleep / goes and sleeps)

This construction may also help express TAM (Tense, Aspect, Mood) for intransitive verbs, using particular preceding verbs, for example:

Preceding Verb	Translation of V. +	
uıum stand up	be about to, will, be likely to	
arra close (their) eyes	refuse to, not intend to	
<b>‡aã</b> go	begin, go to do, go there and,	
tł'oi exit, leave	stop, finish,	

We may not, however, serialize such intransitive verbs with a transitive verb, with the same types of meaning. For example, the following (with the presented intended meaning) is ungrammatical:

(25) \*sɨa ku ṭaã !ope ṇàã ṭ'a human CLF<sub>man</sub> go kill eland CLF<sub>large herbivores</sub> \*The man went to kill the eland.

because this construction would appear to attempt to share an argument between the patientive and agentive role in the SVC, which is not allowed by ergativity. You *could* see the example as grammatical and translate it in the purely ergative sense as *The eland went* and got killed by the man, but this **intransitive-first patientive SVC** construction is extremely uncommon, due to the unpleasant distance between the agent and the transitive verb it modifies.

To communicate the meaning we originally wanted, which is 'the man went to kill the eland', an astounding feature only possible thanks to dark 's lack of ergative morphology is given by **chain SVCs**<sup>2</sup>. In a chain SVC, an argument is placed, unmarked, inbetween an intransitive and a transitive verb, in that order, followed by the object of the latter. The sandwiched argument acts as the patient to the first verb (given that it follows it), and as agent of the second (coming before it)<sup>3</sup>. This quite readily fixes the previous example:

<sup>&</sup>lt;sup>2</sup>The name serial verb construction is improper in this case since the verbs are not literally adjacent, but it still constitutes a monoclausal, polyverbal setup.

<sup>&</sup>lt;sup>3</sup>When a 1st or 2nd person pronoun is infixed as part of a chain SVC, as when translating 'I went to kill the eland', the ERG teform is commonly employed.

(26) ‡aã ṣ‡a ku !ope ṇàã ‡'a go human CLF<sub>man</sub> kill eland CLF<sub>large herbivores</sub> The man went to kill the eland.

Finally, we may also much more easily have regular SVCs where the first verb is transitive. If the second one is intransitive, then we have a **transitive-first patientive SVC**, where the transitive action causes the intransitive action:

(27) !Xao'aã ku n∥xape tsui n!upaṇa tła !Xao'aã CLF<sub>man</sub> insult cry n!upaṇa CLF<sub>woman</sub> !Xao'aã insulted n!upaṇa and she cried (made her cry).

If both are transitive, we have a **binary SVC**, where both agent and patient are shared. The meaning is more likely of temporal consecution than of causality, though this is not an absolute. Example:

(28) !Xao'aã ku !ope au!q'o ṇàã ‡'a !Xao'aã CLF<sub>man</sub> kill skin eland CLF<sub>large herbivores</sub> !Xao'aã killed and then skinned the eland.

In summary, the following kinds of SVCs are possible:

SVC type	Verb 1	Verb 2	Shared argument	Likely translation
Intr. Patientive	intr.	intr. Patient		Tense/Aspectual
Chain	intr.	tr.	One infixed argument acting as Patient and Agent respectively	Tense/Aspectual
Trans. Patientive	tr.	intr.	Patient	Causal
Binary	tr.	tr.	Both Patient and Agent separately	Consecution

## 2.7 Imperatives and Polarity

To doo be doo

## 2.8 Interrogatives

To doo be doo

## 2.9 Topic-Comment

You guessed it

# **Chapter 3**

# Corpus

## 3.1 The North Wind and the Sun - N!òõ U!q'a maã Jùu aje ‡u

Laula N!òõ U!q'a maã Jùu aje ‡u eł∥a iñi n;um nui 'èe s;a;au ∥ùuṇa. Țurra, loõṇi ;xoi on;'a o!'o q'añi. Maã aje ‡u n!'oirre nui 'èe ‡a 'a q'añi ku n∥xòi upa ;xoi ṭèe, un;u s;a;au tłìi š!u nui. N!òõ U!q'a maã ‡xàu'a tṣe ra tsùu n⊙aã, ṇam ča uji tsùu maã, q'añi ku 'a ṭèe on;'a !q'ati n!xùu. 'ai U!q'a maã eña ṣ‡q'o. 'ai 'ai, loõṇi ra čìiči Jùu aje, 'ai ‡u ku u!q'o ;xoi ṭèe. N!òõ U!q'a maã t∥a s;a;au Jùu aje.

Once upon a time, the North Wind and the Sun were discussing over which one of them two was stronger. Suddenly, a vagabond wrapped in a warm cloak arrived to them. The Wind and the Sun decided that the first of them that would make the vagabond take off the cloak, truly that one would have been the strongest. The North Wind blew as strong as he could, but as the wind blew, the vagabond enveloped themselves in the cloak ever more. And so, the Wind gave up. But then, the Sun shone warmly, and so the vagabond took off their cloak. Thus, the North Wind saw that the Sun was stronger.

- (29) Laula N!òõ U!q'a maã Jùu aje  $\pm u$  el $\parallel a$  iñi once.upon.a.time North wind CLF<sub>weather</sub> sun CLF<sub>celestial object</sub> and conflict over *Once upon a time, the North Wind and the Sun were discussing*
- (30) njum nui 'èe sjajau  $\parallel$ ùuṇa. two  $CLF_{people}$  PTV COMP $\sim$ strong about over which one of them two was stronger.
- (31) **Țurra , loõṇi 1xoi on1'a o!'o q'añi .** suddenly warm cloak envelop walk.into vagabond

Suddenly, a vagabond wrapped in a warm cloak arrived to them.

- (32) Maã aje  $\frac{1}{4}$ u N!'oirre nui 'èe  $\frac{1}{4}$ a 'a q'añi ku  $CLF_{weather}$   $CLF_{celestial\ object}$  and decide  $CLF_{people}$  PTV first ABL vagabond  $CLF_{man}$   $\frac{1}{8}$ vi upa  $\frac{1}{4}$ xoi tèe , remove SUBJ cloak  $CLF_{clothing}$  The Wind and the Sun decided that the first of them that would make the vagabond take off the cloak,
- (33) unju sjajau tłìi š!u nui truly COMP~strong COND RES CLF<sub>people</sub> truly that one would have been stronger.
- (34) N!òõ U!q'a maã  $\ddagger$ xàu'a tṣe ra tsùu N $\bigcirc$ aã, North wind CLF<sub>weather</sub> strain peak INSTR throw air The North Wind blew as strong as he could,
- (35) nam ča uji tsùu maã , q'añi ku 'a tèe oni'a but while ANTIP throw CLF<sub>weather</sub> vagabond CLF<sub>man</sub> ABL CLF<sub>clothing</sub> envelop !q'ati n!xùu .

  self.ACC more

  but as the wind blew, the vagabond enveloped themselves in the cloak ever more.
- (36) 'ai Ulq'a maã eña ṣ‡q'o .
  and wind CLF<sub>weather</sub> surrender neck

  And so, the Wind gave up.
- (37) 'ai 'ai , loõṇi ra čìiči Jùu aje , 'ai ‡u ku ulq'o and.then warm INSTR shine sun CLF<sub>celestial object</sub> and and CLF<sub>man</sub> peel.off ixoi tèe .
  cloak CLF<sub>clothing</sub>

  But then, the Sun shone warmly, and so the vagabond took off their cloak.
- (38) N!òō U!q'a maã l|a saaau Jùu aje
  North wind CLF<sub>weather</sub> see COMP~strong sun CLF<sub>celestial object</sub>

  Thus, the North Wind saw that the Sun was stronger.

# **Chapter 4**

# Lexicon

## 4.1 Basic Classifier Taxonomy

todopdeedoo

## 4.2 Greetings and idioms

to do as well

#### 4.3 Numerals

‡A 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 a!ùuma hand (instead of it being assigned, more logically, to 5).

	Cardinal	Ordinal		Cardinal
1	!òo	‡a	13	ŋum ‡a
2	изиm	!aaru	14	ŋum !aaru
3	e‡aaka	*NJumrru	15	š!o!q'oi
4	sı'e		16	nonoti
5	š!q'oi		17	nonoti ‡a
6	a∥um		18	a∥umñu
7	n‡oiči		19	*pèe 'a !òo
8	noti		20	pèe (or *a!u!ùuma)
9	изааti		21	pèe ‡a
10	a!ùuma		22	*pèe !aaru
11	ŋum 'a !òo		23	*ŋuŋum 'a !òo
12	ŋum		24	ŋuŋum

## 4.4 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.
- The subtler syntax of some verbs is clarified by expressing the action in terms of explicit arguments, namely (A) for agent, (P) for patient, (T) for theme (instrumental), and (ABL) for ablative/causer.

```
    paala - /|a:la/ • adv. easily
    paala - /|aila/ • adv. easily
    paala - /|aila/ • adv. orifices, bodily holes, openings, wounds
    paula - /|aula/ • adv. original parts
    paula - /|aula/ • adv. original paula parts
    paula - /|aula/ • adv. original paula parts
    paula - /|aula/ • adv. original paula pau
```

!'ina - /!'ina/ • n. boat

!'oã - /! $^{2}$ õã/ • n. fingernail • n. (of a location or a stretch in time) end, endpoint, boundary, finish, completion, last portion

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  $\bullet$  *n*. palm (of hand), sole (foot)

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

!oi - /!oi/ • 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 - /!ɔːṭa/ • preverb IMP.NEG

!oono - /!ɔ:nɔ/ • n. boy [CLF ji,nui]

!oorro - /!ɔ:rrɔ/ • n. urine [CLF ‡ùm] • v.intr. urinate

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

!òotło - /!ɔ:t͡+ɔ/ • n. vulva

!q'ao - /Îq'aɔ/ • n. clock

!q'ati - /!q'atsi/ • refl.pr. self.ACC, placed in P position, marks that (C) is also acting as (P).

!umña - /!m:na/ • n. rain

!umñi - /!m:ni/ • pers.pr. 2.S.ACC

!umta - /!m:ta/ • pers.pr. 2.PL.ACC

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

!uū!oi - /!m:!ɔi/ • *N/A* hello, hi

!xaje - /!  $\gamma$ aje / • v.tr. open

!xape -  $\sqrt{!}\chi$ ape/ • adj. happy

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

!xòo -  $\sqrt{!}\chi_{\Sigma}$ !/ • pers.pr. you and I

!'uulu - /!'u:lu/ • v.tr. bite • v.intr. feel  $\frac{1}{4}$ 'a - / $\frac{1}{4}$ 'a/ • clf. larger herbivores, elands, elephants, giraffes, etc

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

+a+xa -  $-/+a+\chi a$ : -/+x snap, break (especially crack) in half

 $+a\tilde{a} - /+\tilde{a}i/ \bullet v.intr.$  go, travel, move  $\bullet v.$ intr. (in SVC) begin ..., go to do..., go there and ....

**‡aãṇi** - /**‡**ã:ηi/ • ν. flee

**‡oipe** - /**‡**oipe/ • adv. maybe.not

 $+\tilde{o}i - /+\tilde{o}i/ \bullet v.intr.$  fly

**‡ootsi** - /**‡**ɔː͡ʃsi/ • n. mountain

**‡òõ** - /**‡**ã:/ • clf. lid

 $\neq \mathbf{q}'\mathbf{a}\tilde{\mathbf{i}} - /\widehat{\neq \mathbf{q}'}\tilde{\mathbf{a}}\tilde{\mathbf{i}}/ \bullet \nu$ . know

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

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

**‡ùm** - /**‡**m:/ • clf. liquids, drops, rain, beverages

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

 $\pm x \hat{a} u'a - / \pm \gamma a u'a / \bullet n$ . effort, strain, force

 $\pm xoita - / \pm xoita / \bullet adj.$  strange

 $+\mathbf{xo\tilde{i}} - /\mathbf{\hat{i}} \times \tilde{\mathbf{\hat{i}}} / \bullet post.$  through  $\bullet post.$  across

 $\|\mathbf{u} - \mathbf{u}\|^2 \mathbf{u} - \mathbf{u}\|^2$  • Ditransitive verb give, provide, (A) give (T) to (P)

**||aa** - /||a:/ • card.num. few

**||arra** - /||arra/ • *v.intr.* close one's eyes, not see, refuse to look • *v.intr.* (in SVC) refuse to ..., not intend to ..., resist ...

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

||àa - /||aː/ • v.tr. hold • clf. young women, recent mothers

**||òi** - /||ci/ • *N/A* NEG

 $\|\mathbf{q'oona} - /\|\mathbf{q'o:na}/ \bullet n. \text{ crab } \bullet n. \text{ lobster}$ 

**||ùuṇa** - /||u̞:ηa/ • post. about

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

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

Back then, in that time, once upon a time

'ai 'ai - /?ai ?ai/ • conj. and thus, and as a consequence, and immediately after

'ào - /?aɔ/ • n. water [CLF ‡ùm]

'èe - /?e:/ • post. PTV

'ii - /?iː/ • clf. slithering.animals

 $u - /2u / \bullet post.$  of

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

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

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

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

 $\mathbf{a} + \mathbf{u} \cdot \mathbf{i} - \mathbf{a} + \mathbf{u} \cdot \mathbf{i} = \mathbf{c} \cdot \mathbf{f}$ . wooden

 $\mathbf{a} \| \mathbf{um} - \mathbf{a} \| \mathbf{m} \cdot \mathbf{m} \cdot \mathbf{m} \cdot \mathbf{m} \cdot \mathbf{m}$ . six

**aje** - /aje/ • *clf*. objects and phenomena in the sky, stars, the sun, the moon, comets,

clouds, rainbows, sunrises and sunsets, eclipses, etc.

ał||'i - /ał||'i/ • n. money

an!xòo - /ã¹!kɔː/ • pers.pr. me and you

 $\mathbf{a}\mathbf{n} + \mathbf{\hat{a}}\mathbf{i} - \mathbf{\hat{a}}\mathbf{\hat{a}} + \mathbf{\hat{a}}\mathbf{i} \mathbf{\hat{a}} = \mathbf{\hat{a}}\mathbf{\hat{a}}$ . every

**ča** - /t∫a/ • conj. while

čèe - /t∫e:/ • n. column

**čìiči** -  $/\widehat{t}$  $\widehat{j}$  $\widehat{i}$  $\widehat{j}$  $\widehat{i}$ / • v. shine

e!'ani - /e!<sup>?</sup>ani/ • v. sing

e!um - /e!m:/ • pers.pr. me (ACC), to me

elumta - /elm:ta/ • pers.pr. 1.PL.EXCL.ACC

e‡aaka - /e‡a:ka/ • card.num. three

eł $\|\mathbf{a} - /\mathbf{e}^{\dagger}\|$ a / • *n*. conflict, discussion, disagreement, verbal fight

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

ete - /etse/ • N/A when

iı'ali - /i|'ali/ • n. barrier

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

ijaã - /i|ã:/ • v.intr. do nothing, be slacking, loiter N‡xa ijaã!Xao'aã ku. !Xao'aã is always slacking. • v.intr. lie down, be on the ground

i!òorri - /i!ɔ̞ːrri/ • v. eat

ił  $\|\mathbf{u}\mathbf{i} - /\mathbf{i}\|\mathbf{u}\mathbf{i} / \bullet n$ . milk [CLF  $\neq \hat{\mathbf{u}}$ m]

iñi - /ini/ • post. over, on top of, above
Subordinating connective provided that, resting on the fact that, the fact that ... guarantees that ... • n. head

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

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

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

ja - /ja/ • pron. 1S.INTR

jața - /jața/ • pers.pr. 1.PL.EXCL.INTR

jèeñi - /¡eːni/ • N/A this

ji - /†i/ • clf. child

jipa - /ɨjipa/ • n. hare

jùm - /jm:/ • v.tr. surround, circle, flank, in either threatening or protective manner • n. circular formation of people or objects, ring of items, a group encircling a centre [CLF ł∥oi] • n. group of people by a campfire

jùu - /juː/ • n. sun [CLF aje]

ku - /ku/ • clf. male adults, men

kuñe - /kune/ • adv. simply

laã - /lã:/ • n. tongue [CLF 1ùu]

làa - /laː/ • clf. foul-smelling objects, rotting matter, feces, waste, corpses, infections, pus, diseases, the severely diseased

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

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

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

**ł**∥oi - /⁴∥ɔi/ • *clf.* static formations, groups and sequences of inanimate objects, layouts, patterns and textures

**maã** - /mã:/ • *clf*. weather phenomena, winds, rains, sandstorms

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

nàã - /nã:/ • v. laugh

noō - /ṇō:/ • clf. round tools, round instruments, artificial balls, spheres, globes, round toys

noti - /nɔt͡si/ • card.num. eight

nui - /nui/ • clf. persons, people, humans, personified entities, individuals, animate

nam - /ηãm/ • conj. but

nàã - /ηã:/ • n. eland [CLF ‡'a]

nùĩ - /ηm̃ǐ/ • clf. spoken word, utterances, phrases, languages, words, voices, thoughts, reasonings

ñàã - /nã:/ • N/A liver

ŋàã - /ŋã:/ • n. woman

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

ŋum - /ŋm:/ • card.num. twelve

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

o!ao - /ɔ!aɔ/ • adj. old

**o!xòoji** - /ɔ!̂χ̣o̞:ɟi/ • ν. get stuck, become unable to move or act

**o!xu** -  $\sqrt{2}$ Ωu/ • *n*. walking cane

onı'a -  $/\tilde{\mathfrak{I}}^{\eta}|^2 a/\bullet \nu$ . envelop

pau - /pau/ • adj. abundant

**po** - /pɔ/ • *n*. lips (of the mouth) [CLF ıùu] • *n*. mouth, oral cavity [CLF ıaõ]

q'añi - /q?ani/ • n. vagabond

ra - /ra/ • post. INSTR

si'e - /s $|^2$ e/ • card.num. four

**sı'i** - /**s**|<sup>2</sup>**i**/ • *clf.* slender

saau - /s|au/ • adj. strong

sıui - /s|ui/ • n. snake

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

š!oine - /š!oine/ • n. meat [CLF làa]

š!o ... iñi - /š!o ... ini/ • v. (smth) be over, be on top of • v. (actions & events) be involved in, act in, perform, be busy with • v. lie on, lay down on, cover š!o ku n‡òō iňi he is lying on the bed

**š!q'oi** -  $/\hat{\mathbf{s}} \cdot \hat{\mathbf{q}}'$ oi/ • card.num. five

š!u - /š!u/ • Resumptive marker RES

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

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

 $\$ + um - /\$ + m: / \bullet n.$  knife [CLF !xatle]

tł'oi - /t͡f?ɔi/ • *v.intr.* leave, abandon (ABL), exit • *v.intr.* (in SVC) stop, interrupt ..., finish, conclude ...

tła - /t͡ɬa/ • clf. adult women

tłìi - /tłi:/ • preverb COND

tsui - /t͡sui/ • v.intr. cry

**tsùu** - /tṣu̞:/ • v.tr. throw, launch • v.tr. produce, spit out, blow, excrete

tșe -  $/\widehat{t}$ șe/ • n. peak

tṣui - /t͡şui/ • n. nose

**t'oa** - /**t**?⊃a/ • *n*. corpse, cadaver, carcass (human or animal) [CLF làa]

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

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

**tuma** - /tuma/ • adj. great, awesome

**turra** - /turra/ • *adv*. suddenly

**uγ'ule** - /u|<sup>2</sup>ule/ • ν. create, make, build, manufacture

unum - /u|m:/ • *v.intr.* stand up, stand up straight, get up • *v.intr.* (in SVC) be about to ..., will ..., be likely to ..., plan to ..., intend to ...

u!'ui - /u!'ui/ • pers.pr. 2.ERG

u!àama - /u!aːma/ • n. misstep

**u!oõ** - /u!ɔ̃:/ • n. year

u!òi - /u!ɔi/ • adj. jittery, irritable, violent, uneasy, startled U!'ui 'a u!òi nàã ‡'a! You startled the eland!

 $\mathbf{u} \cdot \mathbf{q} \cdot \mathbf{a} - \sqrt{\mathbf{u} \cdot \mathbf{q}} \cdot \mathbf{a} / \bullet \mathbf{n}$ . wind [CLF maã]

**u!q'o** - /u $\overline{!}$ q'o/ • v.tr. peel, scrape or remove a covering, protective layer, film, piece of clothing

u!xàm -  $\sqrt{u!}\chi\tilde{a}m$ / •  $\nu$ . concern

 $\mathbf{u} + \mathbf{u} - \mathbf{u} + \mathbf{u}$  -  $\mathbf{u} + \mathbf{u}$  -  $\mathbf{u}$    $\mathbf{u}$ -  $\mathbf{u}$ 

uči - /utsi/ • pers.pr. 2.INTR

uji - /u₃i/ • preverb ANTIP

uma - /uma/ • pers.pr. 1.PL.INCL.ABS

upa - /upa/ • preverb SUBJ

**uš!uupa** - /uš!u:pa/ • v. re-organize

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

uţu - /uţu/ • clf. bird

unţaã - /m<sup>ŋ</sup>|ã:/ • n. wolf [CLF ṭàa] • adj. (of a person) unpredictably aggressive, pugnacious, cruel, dangerous

**unju** -  $/m^{\eta}|u/ \bullet adv$ . truly

un‡àaki - /m<sup>n</sup>‡a:ki/ • v.intr. (S) climb

un‡oi - /m<sup>ŋ</sup>‡ɔi/ • n. language, way of speaking [CLF nùi]

 $\mathbf{u}\mathbf{n}+\mathbf{\hat{u}}\mathbf{u}-\mathbf{m}^{\eta}+\mathbf{u}\mathbf{:}/\bullet rel.pr.$  which.ERG

Nıaati - /<sup>ŋ</sup>|a:tsi/ • card.num. nine

**N₁ai** - /¹¹|ai/ • post. face

Num - /"|m:/ • card.num. two

**n**⊙aã - /¹¹⊙ã:/ • *n*. air

NOùm - /¹¹⊙mː/ • Ditransitive verb (A) suck (substance (T)) from (P), (A) suck on (P) • v.tr. suckle on, (A) be breastfed by (P) NOùm Q'oaiùu ∥àa Young Q'oaiùu is breastfeeding (her child). • v.tr. kiss (on the lips or otherwise)

**n!'oirre** - /¹¹!²ɔirre/ • *v*. decide

**n!ai** - /<sup>ŋ</sup>!ai/ • adj. similar to, akin to

**n!àa** - /¹¹!a:/ • n. fire

**N!00'0** - /<sup>ŋ</sup>!ɔ:?ɔ/ • *n*. chicken

**N!òõ** - /<sup>ŋ</sup>! $\tilde{\mathfrak{I}}$ :/ • n. North

n!xàa - /¹¹!͡ʁaː/ • post. inside

**n!xùu** - /¹¹!͡ʁu:/ • adv. more

 $N \neq i - / \uparrow \neq i / \bullet adv.$  NEG

 $\mathbf{N} + \mathbf{a}\tilde{\mathbf{a}} - \mathbf{n} + \tilde{\mathbf{a}} = \mathbf{n} - \mathbf{n}$  complain

 $\mathbf{N} \neq \mathbf{oa} - \sqrt{9} \neq \mathbf{oa} / \bullet v.intr.$  discover

 $N \neq oiči - / \eta \neq oit(i) - card.num.$  seven

 $\mathbf{N} \neq \tilde{\mathbf{O}} - \sqrt{1} \neq \tilde{\mathbf{O}} : / \bullet n$ . bed

 $\mathbf{N} \neq \mathbf{u}\tilde{\mathbf{i}} - / \eta \neq \mathbf{m}\tilde{\mathbf{i}} / \bullet \nu$ . kick

 $\mathbf{N} \neq \mathbf{\hat{u}} \mathbf{u} - \mathbf{v} \neq \mathbf{u} \mathbf{v} \cdot \mathbf{v} \mathbf{u} \mathbf{r}$ . die

 $\mathbf{N} + \mathbf{x} \mathbf{a} - \sqrt{\eta + \mathbf{k}} \mathbf{a} / \bullet a d v$ . always, often, it is a regular occurrence that

 $\mathbf{N} \| \mathbf{a}' \mathbf{a} - /^{\eta} \| \mathbf{a} \| \mathbf{a} / \bullet \mathbf{n}$ . gold

 $\mathbf{N} \| \mathbf{oi} - \mathbf{v} \| \mathbf{oi} / \bullet \mathbf{v}$ . can

ν∥otṣo -  $\sqrt{g}$ ς $\sqrt{g}$ ς $\sqrt{g}$ ον door

 $\mathbf{N} \| \mathbf{\tilde{o}\tilde{o}} - \mathbf{v} \| \mathbf{\tilde{o}} \cdot \mathbf{v}$ . descend

 $\mathbf{N} \| \mathbf{u} \mathbf{i} - \mathbf{v} \| \mathbf{u} \mathbf{i} \mathbf{i} - \mathbf{v} \mathbf{i} \mathbf{n} \mathbf{t} \mathbf{r}$ . jump

 $\mathbf{N} \| \mathbf{xape} - \mathbf{v} \| \mathbf{xape} \| \mathbf{v} \cdot \mathbf{v} \cdot \mathbf{tr}$ . insult, berate, scold

и∥х $\dot{\mathbf{o}}$ і -  $\dot{\mathbf{o}}$ ів $\dot{\mathbf{o}}$ і v. remove

c'aã - /c?ã:/ • n. arm [CLF 1ùu] • n. wing (of bird) [CLF 1ùu]

c'iī - /c?ī:/ • adj. similar