# Tswóló the Language

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## **Preface**

Tsw5l5 is a language I've sketched for Speedlang Challenge 9, organised by miacomet in October 2021. The time limit is a bit over two weeks, but knowing it was coming I started brainstorming a couple of days early (though without advance notice of the constraints).

These are the requirements for the challenge, and the ways I've met them:

- Have an asymmetrical set of plosives. Tsw5l5 has three plosives each at the labial and dental places of articulation, two each at the alveolar, velar, and labiovelar places, and just one palatal plosive; see §1.1.2.
- *Include featural metathesis, for example quantitative metathesis.* I think the processes of vowel length shifting (§1.4.1.2, §1.4.3.3) and tone flipping (§1.4.2.2) satisfy this requirement, though maybe neither is strictly featural.
- *Have a minimum word size*. There's a bimoraic minimum on (roughly) phonological words (§1.3.1) that triggers some fun processes (§1.4.3.4, §1.4.3.5).
- Have a symmetrical voice system. The reversible applicative constructions described in §5.4.2 are meant to satisfy this requirement, I hope they do. I couldn't see a way to square a more typical sort of symmetrical voice with the ideas I wanted to explore having to do with focus.
- Mark a morphological category through absence. The construct state in nouns (§2.3.1) is marked by the loss of all high tones. There's also a sort of anti-agreement when a subject is questioned, relativised, or focused, and maybe that also counts.
- *Use a grammaticalised causative construction*. The **po** causative (§5.4.3.1) should satisfy this, and maybe other instances of the pivot construction (§5.4.3) do as well.
- *Translate and gloss five 5moyd or Zephyrus sentences*. I chose the 5moyd option: (3.17), (3.21), (4.7), (5.1), (5.19), (5.34).

# **Glossing conventions**

Glosses include a relatively surface-oriented transcription as well as the bitby-bit breakdown. The main point of the former is to show the outcome of various tonal processes.

I use the following glossing conventions:

- 1+2 first person inclusive
- 1 first person
- 2 second person
- 3 third person
- A A-series bound pronoun
- AFF affirmative
- animate
- B B-series bound pronoun
- c complementiser
- CAUS causative
- COP copula
- cs construct state
- DEF definite
- **DEM** demonstrative
- DIST distal
- DN dummy noun
- FUT future
- GEN genitive
- HAB habitual
- HEST hesternal (yesterday) past tense
- HOD hodiernal (today) past tense
- IN inanimate
- IPFV imperfective
- LV light verb
- MOD modal
- NEG negative
- pl plural
- PL plural
- PRED predicate
- PROX proximate

PST past

PTCL (sentence-final) particle

REFL reflexive
REL relative
s singular
S singular
TOP topic
VN verbal noun

VN verbal noun WH wh agreement

## Chapter 1

# **Phonology**

This chapter introduces Tsw5l5 phonology. Prosody looms large: Tsw5l5 segmental phonology is fairly well behaved, but tone and other prosodic phenomena get a bit complicated.

At many points my descriptions presuppose the various analyses I prefer. This is unavoidable, of course. I do sometimes signal points at which alternative analyses might be especially attractive.

## 1.1 Inventory

There are nine vowels, thirty consonants, and two tones.

### **1.1.1** Vowels

I'll write the nine vowels as **i**  $\mathbf{i}$   $\mathbf{e}$   $\mathbf{e}$  **a**  $\mathbf{o}$   $\mathbf{o}$   $\mathbf{u}$ . Except for **a**, these come in  $[\pm \mathsf{ATR}]$  pairs: **i**  $\mathbf{e}$   $\mathbf{o}$   $\mathbf{u}$  are pronounced with a somewhat advanced tongue root when companed to  $\mathbf{i}$   $\mathbf{e}$   $\mathbf{o}$   $\mathbf{v}$ , and vowel harmory (§1.4.2.5) prefer words that do not mix vowel from the two classes.

Vowel length is contrastive, but behaves more as a prosody than as a segmental feature (cf. §1.4.1.2). Long vowels are mostly confined to the first syllable of a word (not counting any prefix; cf. §1.2).

### 1.1.1.1 Hiatus

Vowel hiatus occurs rarely within words, and only in new compounds or borrowings. Over time, it seems to be repaired mostly by vowel coalescence or by inserting a glide or **h**.

Hiatus is tolerated when vowels end up adjacent across a clitic boundary. When the vowels are the same (whether underlyingly or as a result of vowel harmory), the result is a phonetic long vowel; if one of the vowels was already long, it's as if the short vowel simply deletes. When the two vowels differ, both are pronounced, often with a hint of an intervening glide or **h** (but nothing that could be confused with an underlying segment). With some sequences,

such as **oi** or **ai**, it's tempting to suppose that the result is a diphthong, but both vowels get equal weight, and I consider them heterosyllabic.

All true affixes avoid hiatus, when necessary, by dropping a vowel. Whether this is allomorphy or a synchronic process I have yet to determine.

### 1.1.2 Consonants

Tswóló's consonants are displayed in Table 1.1. I broadly follow IPA conven-

	Labial	Dental	Alveolar	Palatal	Velar	Labiovelar	Glottal
Nasals Plosives Fricatives Other sonorants	т р b б ф β	n t d ɗ θ ð l	ts dz s z r	j ç j	ŋ k g x	ŋm kp gb w	h

Table 1.1: Consonants

tions, except that I class **h** as a sonorant and leave out some diacritics.

## 1.1.2.1 The glides

It is probably possible to analyse j w as positional allophones of the high vowels, though I have not attempted to carry out such an analysis in detail. It is at least possible to distinguish them phonologically from the other oral sonorants: l r can but j w cannot occur in coda.

### 1.1.2.2 The plosives

In onset, the voiceless plosives are also aspirated. **b d** are at most partially voiced, and aspiration is the main cue distinguishing them from **p t**. **dz j g gb** are all fully voiced, and **gb** is often lightly imploded. An alternative analysis would posit aspirated, unaspirated, and voiced series. This would predict that **dz j g gb** form a natural class with **b d** rather than with **b d**; I know of no data that decide this issue.

In word-final coda position, and ignoring ideophones (§1.5), the plosives lose all laryngeal distictions, and surface voiceless and unaspirated. I write p t ts j k in this position, j instead of (presumably) c simply because there's no voiceless palatal plosive contrasting with j. No labiovelar plosive ever occurs in coda.

All plosives other than 1 can form onset clusters with w.

### 1.1.2.3 The labials

The labial consonants are all strictly bilabial. When not clustered with  $\mathbf{w}$ , they are pronounced with compressed rather than rounded lips.

 $\Phi$   $\beta$  are among the few consonants that *don't* cluster with **w**. Comparison of verb pairs, one with and one without a rounded onset (cf. §3.2.2), suggests

that  $\phi w$  has become hw and  $\beta w$  has become w; but as far as I know there's no reason to think any such process is synchronically active.

The A series first person singular bound pronoun ( $\S 2.6.1$ ) is just m, and it is often parsed as a syllable; no other consonant is ever syllabic, and m is never syllabic in any other context.

### 1.1.2.4 The dentals

 $\theta$   $\delta$  are interdental, and the other dentals are pronounced with the blade of the tongue against the back of the teeth.

The dentals contrast with corresponding alveolars in manner as well as place, and if there are any synchronic processes that invite analysis specifically in terms of [dental] or [laminal] then I haven't discovered them yet. It would thus be possible to treat the place contrast as strictly secondary, and phonologically insignificant.

## 1.1.2.5 The palatals

These are posterior laminal coronals, and are accompanied by secondary palatalisation except when  $\mathbf{c}$  clusters with  $\mathbf{w}$  (which results in  $[\mathbf{w}]$ ).

The other two palatals,  $\mathbf{j}$  and  $\mathbf{j}$ , cannot cluster with  $\mathbf{w}$ ; there are verb pairs in which  $\mathbf{j}\mathbf{w}$  seems to have become  $\mathbf{d}\mathbf{w}$ , but nothing similar with  $\mathbf{j}$ .

 $\mathbf{j}$  is rare word-initially, and most if not all word-medial occurrences of  $\mathbf{j}$  are probably at morpheme boundaries, at least historically. The two are not however in complementary distribution, as the morpheme boundaries in question are not always synchronically obvious, and  $\mathbf{j}$  does occur initially in some words, including the common  $\mathbf{j}\mathbf{j}$  'water'.

The limited distribution of j distinguishes it sharply from w. Notably, Cw clusters are very common, but Cj clusters seem not to occur.

### 1.1.2.6 The labiovelars

The labiovelar plosives require full closure at both places of articulation, and are never pronounced as labialised velars. In fact, verb pair evidence suggests that they derive from rounded labials, not velars at all. The distributional facts concur: **gb** is substantially more common than **kp**, just like **b** is more common than **p**; meanwhile, **k** is more common than **g**.

The labiovelar stops nonetheless contrast with labial+ $\mathbf{w}$  clusters, and can themselves cluster with  $\mathbf{w}$ . That suggests that  $\mathbf{C}\mathbf{w}$  clusters have multiple historical sources.

#### **1.1.3** Tones

There are two tones, a high and a low, which I write with an acute and grave accent, respectively. Both tones are active in the phonology, though it is conceivable that only high tones are truly underlying.

Tones attach to moras, normally one per mora, but derived contours are possible on word-peripheral moras. There's some reason to think only vowels host tones: the A-series first person singular bound pronoun is a syllabic nasal, but its plural form, which takes a high tone, adds a vowel (they are  $\mathbf{m}$  and  $\mathbf{m}\hat{\epsilon}$ ).

The absolute pitch targets associated with these tones varies by speaker, along with many more temporary factors, including both intonation and downstep.

Downstep always occurs immediately before a high tone, and lowers the tone of that and all subsequent high tones up until the next pitch reset. Full pitch reset occurs utterance-finally, though partial resets occur at the end of utterance-internal intonational phrases (roughly, clauses), in paused lists, and before and after parenthetical excursions. In longer utterances, they can also occur at seemingly arbitrary points.

Downstep also affects the pitch of subsequent low tones, though not to as great an extent. This means that it reduces the absolute difference between high and low tone; if it were not for pitch reset, the two would merge.

Downstep occurs in two contexts: between a high tone and a preceding low; and between two high tones separated by a word boundary. In the latter case, it's possible to suppose that a floating low tone has been inserted to separate the two high tones, the low tone downstepping the following high but not otherwise being pronounced.

In principle, downstep could be contrastive: one can imagine contexts in which the position of downstep is the primary cue to a word boundary. I so far know of no such contexts in Tsw5l5, however, and in any case will indicate word boundaries in my transcriptions, so I will not indicate downstep explicitly.

On the analysis I adopt here, there's no reason to posit tone melodies in addition to tones as phonological primitives. No doubt other analyses are possible.

## 1.2 Word shapes and word-building

There are both constraints that govern all Tsw5l5 words and generalisations that seem robust but have (often systematic) exceptions. I'll start with the former.

A Tswóló syllable is maximally **CGV:C**. A vowelless syllable is possible, though this occurs only with the A series pronoun **m**, which is often parsed as a syllable (§2.6.1). Otherwise, the vowel must be present. The onset consonant can be absent, underlyingly at least, though this is rare in medial position. A coda consonant is possible only word-finally.

All consonants can occur in onset, both initially and medially. Word-final codas are limited to m, n, p, t,  $\mathfrak{z}$ , k,  $\mathfrak{r}$ , and l. Medial w can occur after all consonants other than  $\phi$ ,  $\beta$ ,  $\mathfrak{z}$ , and w itself; and medial l and  $\mathfrak{r}$  occur after labial and velar plosives.

A word can contain at most one sequence of high-toned moras, which can but need not be followed by a sequence of low tones. Importantly, this constraint applies not just to roots or lexemes but also takes into account prefixes and clitics, and can come into play when a grammatical tone is attached to a word (§1.4.2.1) or when prosodic compounds are formed in syntax (§1.4.3.4). Violations of the constraint are repaired by the process of tone flipping (§1.4.2.2).

The only other restriction on the distribution of tones is that each mora can be lexically associated with at most one tone. Monomoraic rising and falling contours can surface in several grammatical contexts, but they are never underlying.

Further generalisations require a distinction between four sorts of word:

- ideophones
- · borrowed vocabulary
- · compounds
- · everything else

There is admittedly some difficulty in saying what words should be counted as borrowed or as compounds. As you might expect, many words that start out phonologically unusual get assimilated over time, especially as their etymologies are forgotten or obscured. But at the same time there are seeming oddities, which do not conform to the language's usual patterns but which are cannot synchronically be identified (on non-phonological grounds) as compounds or borrowings. (Ideophones, though, are easy to identify, given their very restricted distribution, on which see §4.2.)

Be that as it may, I'll hazard the following generalisations:

- Only new compounds allow medial syllables with no onsets. These seem mostly to be assimilated by merging the two vowels as a single long vowel. Hiatus in borrowed terms is normally avoided with a glide or h.
- Only borrowed vocabulary and ideophones allow long vowels in the second syllable; long vowels later in the word are rare, though can also occur in derived words. A long second vowel often has its length shift to the first syllable (§1.4.1.2), long vowels later in the word tend simply to shorten.
- [+ATR] vowels tend to occur in the same word as [-ATR] vowels only when separated by **a**. Almost all exceptions to this rule occur in new compounds; these seem eventually to get assimilated by spreading [+ATR] to [-ATR] vowels, in both directions.

Words formed by prefixation do not seem to be exeptional in any of these ways. Notably, long vowels routinely shift from stem to prefix when deriving new words.

### 1.3 Prosodic constraints

There are two grammatical constraints that apply specifically to a sentence's prosody, both involving weight, or mora count. These presumably are not narrowly syntactic, and violating them certainly doesn't render a sentence incomprehensible. But speakers generally reject such sentences with about the same vehemence with which they reject sentences that are syntactically or semantically ill-formed; this isn't just stylistics.

### 1.3.1 The bimoraic minimum

Tswóló has something like a minimum word constraint, except that it applies to what I'll call the clitic group, which can be larger than a phonological word because it will include any dependent clitics. The requirement is that a clitic group contain at least two moras.

Now, many Tsw5l5 words are monomoraic, and they don't always have a neighbouring clitic to help out. They can still often satisfy the bimoraic minimum as a result of the processes of prosodic compounding (§1.4.3.4) and vowel lengthening (§1.4.3.5). When those processes are not available, however, you have no choice but to reword.

## 1.3.2 The iambic preference

When a lexical head is followed by a complement or modifier, there's a strong preference that the second item be prosodically heavier—strong enough that sentences that violate this constraint are often rejected as ungrammatical.

It is nonetheless quite tricky to work out when exactly this constraint comes into play. It applies most regularly to a verb and its object or a following verb in a serial construction, and to a noun and a following modifier, including both adjectives and associated noun modifiers, as well as to adjacent modifiers modifying the same noun. Functional material associated with the first item seems to be ignored, even when it occurs between the two, but functional material associated with the second item clearly does count.

To illustrate that last issue, here are three verb-object examples:

### (1.1) agέl ο i dwódzε a jablá lóó

```
agél ɔ = ì = dwódzɛ = a jablá lɔɔ

Agel 3sAN.A = IPFV = take_revenge = 3s.B Jabla PTCL

"Agel is taking revenge on Jabla!"
```

## (1.2) bwíní ko škó dzímí a díl o aa

```
bwíní = ko o - kó dzímí = a díl = ho a 
Bwini = DEF 3sAN.A - PST nibble = 3s.B fish = DEF PTCL 
"Bwini nibbled on the fish"
```

### (1.3) \*raa bewén əŋ ĕŋé mádesi a agél aa

```
ra ó-béwen = ɔŋ ε- ŋέ ó mádesi = a
head.cs gen-klutz = dem 3sin.a- hod pred disgust = 3s.b
agél a
Agel ptcl
```

Intended: "This clumsiness disgusted Agel"

The fact that (1.1) is well-formed implies that the clitics attaching to the verb aren't being taken into consideration. But the fact that (1.2) is well-formed implies that the definite object attached to the noun is being taken into account. And the fact that (1.3) is not well-formed confirms that the object clitic is not being counted towards the weight of the object.

There's one phonological process that seems to directly answer this constraint, phrasal vowel length shifting (§1.4.3.3). Mostly, however, it's apparent in speakers' choice of words and constructions. For example, the use of appositive noun phrases in  $g\epsilon$  (§2.5) seems often to be motivated by prosidic considerations.

## 1.4 Phonological processes

Here I'll survey some significant phonological processes, some of which have already been mentioned. Strikingly, only one of these processes (vowel harmony) either affects or is sensitive to segmental features; it's Tswóló prosody that's relatively dynamic. I'll discuss these processes based on the phonological domains in which they occur. And I'll omit morpheme-specific adjustments, taking those up only when I introduce the items in question.

### 1.4.1 Within phonological words

A phonological word consists of a stem plus any associated affixes, but not any clitics. In (just) one case, a phonological word consists entirely of functional material: the initial cluster of a verb complex that includes a past tense or negation marker.

Distinguishing phonological words from clitic groups requires distinguishing affixes from clitics. I know of no way to do this other than by checking what processes occur where. This procedure classes weak pronouns sometimes as affixes and sometimes as clitics, a situation that might call for further investigation.

I mainly distinguish these domains simply by observing what processes occur where. That's how I distinguish clitics from affixes, for example (though I'll return to that issue occasionally when discussing particular instances). Phonological phrase boundaries come at the end of syntactic phrases, and intonational phrase boundaries come at the end of syntactic clauses adn also between items in a list and after certain things (such as context-setting topics) that can be adjoined to the start of a sentence; in both cases, boudaries can be

removed in faster speech. Unlike languages that use intonation to signal focus, phrase boundaries never get inserted for information-structural purposes.

### 1.4.1.1 High tone spreading

If a word's first mora has a low tone but there's a high tone on its second mora, the high tone will spread, creating a rising contour on its initial mora. This is the main source of contour tones in the language. You could take it to imply that a word's first mora is treated as a metrically strong position.

This process does not occur in ideophones.

### 1.4.1.2 Intraword vowel length shifting

Within a phonological word (counting affixes but not clitics), if the second vowel is long but the first is not, vowel length shifts to the first vowel.

This process never results in a contour tone on the now-monomoraic second vowel. I'm not sure what the best analysis of this is, but it works so that the tone that was assigned to the second mora in the sequence still gets assigned to the second mora, even though that's now associated with a different syllable. This is most noticeably when a lot-toned prefix is attached to a word with a high-low contour over a long vowel in its first syllable. For example, adding adjective-forming la- to sɔɔ̀wɛ 'sweat' yields làásəwɛ.

Ideophones are exempt from this process, as are verbal nouns (§3.4.1).

## 1.4.2 Within clitic groups

A clitic group consists of a phonological word together with any clitics it hosts. Tone flipping, falling tone simplification, and vowel harmony apply across both clitic and affix boundaries, so they're not exclusively associated with the clitic group.

## 1.4.2.1 Floating tone assignment

Some grammatical constructions feature a tone that attaches to whatever word occurs in some given position. Sometimes this tone can be associated with a particular functional item, such as the low floating tone that follows certain modal and aspectual clitics. In other cases, it seems to be a feature of the construction as a whole.

The floating tone is assigned to the immediately following mora. This can result in high-low-high sequences assigned to a single mora. Tone flipping (§1.4.2.2) and tone merger (§1.4.2.3) will convert any such sequence to high-low; nothing more complex than a rise or a fall ever surfaces on a single mora.

### 1.4.2.2 Tone flipping

I have mentioned that a word—actually a clitic group—can contain at most one sequence of high tones. Violations can arise from affixation, cliticisation, and floating tone assignment. When they do, tones get flipped.

Superficially, this process takes a sequence like HLH, and replaces it with **hhl**. It does not matter how many tones are involved, so for example HLLHHH would get replaced with **hhhlll**: the whole sequence of lows switches to high, and the whole subsequent sequence of highs switches to low. (Any subsequent low tones are not affected.)

I analyse this as a form of metathesis. This requires an autosegmental analysis: when a sequence of moras (within a clitic group) are all high, or are all low, I take this to mean that a single tone is linked to each of the moras. We can represent this situation as follows:

## (1.4) **6obélé** 'tree rat'



Now suppose that a floating high tone attaches to the beginning of the word, perhaps to mark genitive case. You get something like this:

## (1.5) \***6ôbélé**



This represents a sequence that you might expect to be realised as **6ôbélé**—but Tswóló does not allow the high-low-high sequence. What happens is that the second H swaps places with the intervening L. Here's the result:

## (1.6) **bóbele** 'tree rat (GEN)'



Understood autosegmentally, this just swaps two tones; but this affects as many moras as the two tones are linked to. (The adjacent high tones then merge, a process I describe next.)

## **1.4.2.3** Tone merger

When a clitic group contains two adjacent high tones or two adjacent low tones, they merge. This is the outcome with **6ódɛlɛ**, discussed above:

## (1.7) **bóbele** 'tree rat (GEN)'



This is a relatively abstract process, but the fact that downstep (§1.4.4.1) never occurs within words does imply that at least high tones must merge.

## 1.4.2.4 Falling tone simplification

When a single mora is assigned a high-low sequence, and within the clitic group is either preceded by a high-toned mora or followed by a low-toned one, the falling contour simplifies: it becomes high before a low tone, and otherwise becomes low after a high tone.

This is another case that it's worth thinking about in autosegmental terms. Suppose a floating high tone has attached to an otherwise low-toned word. Here's a genitive example:

## (1.8) \*gôòm



This satisfies the conditions for falling tone simplification, because the implied falling contour on the first mora occurs before the low tone on the second mora. As you can see, autosegmental analysis implies that this involves a single low tone, linked to both moras. And to eliminate the contour on that first mora, Tswɔ̃lɔ́ requires the link between the low tone and the first mora to be severed. Here's how to diagram that:

## (1.9) **góàm** 'goomfruit (GEN)'



Falling tone simplification can take another form, or so at least my analysis of these matters implies. When a verb becomes monomoraic as a result

of phrasal vowel length shifting (§1.4.3.3), and the verb had a high-low tone contour, and it occurs after the imperfective clitic (which supplies a floating low tone), it seems like that monomoraic verb ends up with a low-high-low sequence assigned to its one mora. If the verb forms a prosodic compound (§1.4.3.4) with whatever follows it, this low-high-low sequence will be simplified by processes I've already described. If it does not, however, you get a very straightforward simplification: the verb occurs with just a simple low tone. ((1.10), below, gives an example of this.)

### 1.4.2.5 Vowel harmony

Many affixes and clitics are subject to vowel harmony: the ATR specification of their vowels is determined by that of the first stem vowel.

When the stem vowel is  $\mathbf{a}$ , and thus neutral with respect to  $[\pm ATR]$ , the affix or clitic will have a [-ATR] vowel. I take that to reflect their underlying form, and thus that vowel harmony always converts a [-ATR] vowel to a [+ATR] one.

Affixes and clitics that are underlyingly [+ATR] neither adapt to nor affect the vowels in their host. Tsw5l5 vowel harmony is thus consistently root-controlled, and treats [+ATR] as the dominant feature value.

## 1.4.3 Within phonological phrases

The next group of processes takes place within phonological phrases. It is not easy to say in general where phonological phrase boundaries fall. Normally they occur only at the end of syntactic phrases, though some can be added or removed depending on such intonational factors as tempo and rhythm, with more phonological phrase boundaries being characteristic of slower or more staccato speech. Unlike many languages that use intonation to mark focus, however, Tsw5l5 does not insert phonological phrase boundaries for information-structural purposes.

### 1.4.3.1 Syllabification

Syllabification procedes as if according to the following algorithm:

- Each vowel is assigned to its own syllable nucleus.
- Each consonant that directly precedes a vowel within the same phonological phrase is assigned to the onset of the vowel's nucleus. If there's another consonant preceding it and the two can form a legal onset cluster, both are parsed into the onset.
- Any remaining consonant is assigned to the coda of the preceding syllable, if there is one.
- Any remaining consonant (which must be initial) is assigned to the nucleus of its own syllable.

This algorithm is very forgiving: it does not enforce constraints on coda consonants or acknowledge the fact that **m** is the only consonant that can be syllabic (and that this occurs in only one context).

I class this as a phrasal process for two reasons. First, the second step clearly applies across word boundaries within a phrase, when the final consonant of one word can become an onset when it occurs before a vowel-initial word. Second, when fast speech erases the phrase boundary that normally separates a subject from the following verb complex, the first person singular marker **m** can get parsed as a coda, attached to the final syllable of the subject (if that is vowel-final).

It's possible that syllabification takes place first within words, and then at a later stage word-peripheral consonants can get resyllabified when vowel-adjacent. I don't really know how you'd settle this issue, though: syllabification may feed phonetics, but it seems to have no strictly phonological consequences.

## 1.4.3.2 Partial pitch reset

The phenomenon of downstep (§1.4.4.1) means that high tones later in an utterance are often pronounced at a significantly lower pitch than those at the start. Because low tones do not lower at nearly the same rate, the distinction between the two could be threatened in longer utterances. The main way this is avoided is with occasional partial pitch resets, and these only ever occur on the first high tone in a phonological phrase.

Pitch resets are very common on the first high tone of an ideophone. Conceivably this is a different phenomenon, however.

### 1.4.3.3 Phrasal vowel length shifting

When two monosyllables occur in a configuration that's subject to the iambic preference (§1.3.2), there is no intervening functional material, and the first item has a long vowel but the second a short vowel, vowel length will shift from the first to the second vowel. This does not affect vowel quality; it's a purely prosodic phenomonon.

Here's an example showing one common sort of case, involving a verb and its object:

### (1.10) bwíní o i dza dííl aa

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bwíní ɔ= ì= dzáà díl a

Bwini 3sAN.A = IPFV = fish fish PTCL
"Bwini is fishing"
```

Here, vowel length shifts from the verb to its object, ensuring that the object is prosodically heavier than the verb.<sup>1</sup>

You'll notice that tone on the object is not affected. This is a difference between phrasal and intra-word vowel length shifting (§1.4.1.2): intra-word shifting would also move the tones around.

In this example, the shifting of vowel length to the object prevents prosodic compounding ( $\S1.4.3.4$ , next) from taking place. That's because the object is now bimoraic and can stand on its own. However, if the verb were not preceded by clitics (as would be the case if this were a past perfective construction), it would now need to form a compound with the object. This would result in tone flipping  $\S1.4.2.2$ , and the verb-object sequence would end up as  $dz\acute{a}$  diil.

## 1.4.3.4 Prosodic compounding

This is a process merges two adjacent words in such a way that they're treated as constituting a single clitic group. It can occur only when certain prosodic and syntactic conditions are met; whenever they are met, it is automatic.

These are the prosodic conditions:

- · the first item must be monomoraic
- either the first item is not preceded by a clitic or the second is both monomoraic and cliticless

The requirement that the first item be monomoraic could be taken to reflect Tsw5l5's iambic preference, mentioned above (§1.3.2). Note that the first item can be monomoraic as a result of vowel length shifting §1.4.3.3).

Clitics have a sort of dual significance for this process. A monomoraic word with an associated clitic is guaranteed to satisfy the bimoraic minimum, so it need not form a prosodic compound with a neighbouring item; but the clitics don't prevent it from forming a compound when it neighbours another monomoraic word.

Syntactically, the items that form a prosodic compound must stand in one of the following relations:

- · verb to object; the object cannot be preceded by an object marker
- verb to verb in a (true) serial construction (§5.4.1)
- head noun to nominal modifier; the modifier cannot be marked for genitive case (§2.3.2)
- head noun to modifying adjective; the adjective cannot take an agreement marker (§2.4.2)

 $<sup>^1</sup>$ This is also an example of the sort of case I described at the end of §1.4.2.4: with its vowel shortened, **dzáà** should become **dzâ**, but then you would expect the floating low tone supplied by the imperfective clitic to result in a low-high-low sequence, all on that one mora; but what you in fact get is just a low tone.

• light verb to ideophone; the light verb is always **dú** 'say'

As you can see, these conditions require strict adjacency: intervening functional material renders prosodic compounding impossible.

When there is competition among options, verb-object and verb-ideophone compounds are preferred.

Here is a common sort of example involving a verb and its object:

### (1.11) bwíní o é kpa na aa

```
bwíní ɔ= ê= kpá ŋá a

Bwini 3sAN.A= HAB= eat snake PTCL

"Bwini eats snake"
```

The verb is preceded by two clitics, so it has no trouble with the bimoraic minimum. But its object is also monomoraic, and immediately follows, so the two form a compound. Note that the object has lost its high tone. Here that reflects the fact that it's affected by the tonal interactions between the habitual clitic and the verb. It's complicated: as I'm currently analysing things, floating tone assignment (§1.4.2.1), tone flipping (§1.4.2.2), and falling tone simplification (§1.4.2.4) all get involved.<sup>2</sup> The point is that these processes take place only within clitic groups, and affect a verb's object only when the verb and object form a prosodic compound.

When the verb  $\mathbf{d\hat{u}}$  forms a prosodic compound with a following ideophone, something quite different occurs: the tones on the ideophone are not affected, but  $\mathbf{d\hat{u}}$  generally loses its high tone when combining with an ideophone that has high tones (regardless of where the high tones are in the ideophone).

One final caveat. Word compounded in this way do not thereby undergo vowel harmony. Maybe this is because vowel harmony only affects affixes and clitics, and both elements in a prosodic compound are full lexical items.

## 1.4.3.5 Vowel lengthening

It can happen that a monomoraic word is unable to form a prosodic compound. In that case, what happens depends on what sort of word it is.

If it's a noun, its vowel will simply lengthen. If it has a high tone, that will spread onto the new second mora.

But only nouns undergo this process. With adjectives, the issue can never arise because there are no monomoraic adjectives. And the few monomoraic ideophones that occur unreduplicated seem exempt from the bimoraic minimum. But even verbs cannot undergo the process, and that can result in prosodically ill-formed constructions that can be fixed only by rewording. (For one example see (5.14) in Chapter 5.)

The distinction between nouns and verbs here can be drawn only in context. While it's not very common, there are some words that can be used both

 $<sup>^2</sup>$ I write the habitual clitic as  $\hat{\mathbf{e}}$ , but officially analyse it as being high-toned but also supplying a floating low tone; cf. §3.3.7.

ways, and what matters is how they're being used in the particular context. For example,  $\mathbf{\Phi}\hat{\mathbf{u}}$  can be a verb meaning 'blow' or a noun meaning 'breath'; when it's a noun, its vowel can lengthen, but when it's a verb, that can't happen.

I'm afraid I can't explain why vowel lengthening never applies to verbs. Maybe someday someone will look into this.

## 1.4.4 Within the intonational phrase

The intonational phrase often corresponds to a whole syntactic clause, they you can also get intonational phrase boundaries between items in a paused list, and after certain elements (such as context-setting topics) that can be adjoined to the beginning of an utterance. Also, ideophones and some other adjuncts consistently get assigned their own intonational phrases.

Some of the processes described below clearly involve intonation. However, intonation involves many phenomena that I cannot discuss here: tempo, rhythm, pitch range, absolute pitch level, and on and on.

### 1.4.4.1 **Downstep**

When two high tones occur on adjacent moras that belong to distinct clitic groups, the second of the two is downstepped. This means that it is pronounced at a noticeably lower pitch; and this affects all subsequent high tones up until the next pitch reset (§1.4.3.2, §1.4.4.3). Low tones are not noticeably affected.

Given a standard autosegmental understanding of tone, and assuming the process of tone merger (§1.4.2.3) described above, its possible to simplify the statement of this rule: downstep occurs between any two adjacent high tones.

### 1.4.4.2 Pause

Speakers generally insert noticeable pauses only at the boundaries between intonational phrases.

### 1.4.4.3 Full pitch reset

Pitch is very often fully reset at the boundaries between intonational phrases, particularly when there is a noticeable pause.

### 1.4.4.4 Final vowel lengthening

If the final syllable in an intonational phrase contains a short vowel, it will lengthen. This can be hard to detect utterance-finally, where there is almost always a sentence-final particle of some sort: you might just suppose that all sentence-final particles have underlying long vowels. But in other positions, such as in a paused list, the lengthening is obvious.

Ideophones are not subject to final vowel lengthening, however.

## 1.4.4.5 Boundary tone insertion

Boundary tones get assigned to the last vowel in a phonological phrase. Ideophones are again exempt.

Boundary tone insertion is clearest in non-utterance-final positions, where you almost always get a high tone. Things are more complex utterance-finally, where it can be hard to say whether the tonal contour on the final syllable truly represents intonation, as opposed to being lexically associated with a final particle.

Let's take the simpler case first. A non-utterance-final boundary tone is guaranteed to fall on a long vowel. If that vowel was short, and became long only as a result of final vowel lengthening (§1.4.4.4), it will end up with just the boundary tone—as if the new mora came with no tone linked to it. If the vowel was already long, it will already have its own tone, in which case you can get a contour.

Utterance-finally, it's possible to make some generalisations about the distribution of the various possible boundary contours. When a declarative utterance ends in a low-high sequence, that tends to signify that the speaker intends to keep talking, whereas it'll be low-low to signal that their turn is over. You find the same pattern with imperatives: in a sequence of imperatives, all but the last will end with a high-high sequence, which will become high-low when the speaker is finished telling you what to do. With both imperatives and declaratives, the tone contour does not usually seem to be sensitive to the choice of final particles.

In questions, though, you don't normally choose what final particle to use: it's wáá for polar questions, dáà for content questions, and dɛɛ for topic questions (bwíní dɛɛ 'what about Bwíní?'). Conceivably both the vowel length and the tone contours are the product of general intonational processes; but perhaps they're just part of the lexical specification of these particles. (Though dɛɛ at least can also occur at the end of certain adjunct clauses, and generally gets a high tone there, suggesting that in this case at least tone is an independent variable.)

This is a matter that could use a great deal more investigation. Maybe someday I'll get a student to look into it.

Boundary tones neither trigger nor undergo any of the tone-affecting processes I've described above. For example, a high boundary tone will never trigger tone flipping (§1.4.2.2).

## 1.5 Ideophones

As I've mentioned a few times, ideophones seem to be exempt from some of the rules that otherwise govern Tsw5l5 phonology. It's nothing really drastic, but still worth mentioning.

Ideophones are phonologically exceptional in the following ways:

- Long vowels can occur in any position, and are common in ideophonefinal syllables.
- Long vowels can generally be lengthened arbitrarily for sound-symbolic effect.
- An ideophone can contain multiple stretches of high tones; in particular a high-low-high-low sequence, with one tone per mora, is quite common.
- Ideophone-final plosives are fully released, and laryngal contrasts can be contrastive. Usually, however, a distinction between (say) final **p** and **b** is drawn only within what I call below an ideophone family.
- A handful of ideophones are monomoraic; these are often reduplicated, but not always, so ideophones seem to be exempt from the bimoraic minimum.
- Ideophones are exempt from final vowel lengthening and boundary tone insertion, even they very often occur before pause.

Many ideophones fall into small families that are related both semantically and phonologically, where the phonological differences seem to be motivated by sound symbolism. Take, for example, the pair  $\mathbf{65p}$  'plop' and  $\mathbf{6666}$  'ploosh'. Both invoke the sound of something splashing as it enters water, but you'd use  $\mathbf{65p}$  if it's something small like a pebble and  $\mathbf{6666}$  if it's something larger; the lower and longer vowel in  $\mathbf{6666}$  helps suggest this, as does the less-abrupt final plosive.

Another example. The ideophone  $\mathbf{d\hat{n}}$  characterises something that's falling, and the vowel can be arbitrarily lengthened to describe longer and longer falls. The tone will fall gradually throughout, potentially reaching a low substantially lower than a standard low tone, possibly accompanied by creak.  $\mathbf{d\hat{n}}$  can also be augmented with a labial plosive to signify impact; the choice between  $\mathbf{p}$  and  $\mathbf{6}$  is conditioned by the squishiness of the impact.

## Chapter 2

# Nouns and the noun phrase

This chapter discusses nouns and the various elements that make up the noun phrase.

### 2.1 Gender

There is apparent agreement in gender in both the third person singular Aseries pronouns and with the definite article. The distinction is between animate and inanimate, and is thoroughly semantic, to the point that it is sometimes vague (when talking about some animals), is sensitive to anthopomorphisation, and never seems sensitive to lexical choice. That's to say, gender seems to be a property attributed to referents, not one that's lexically assigned to words, so I'm not convinced that this is really grammatical gender.

### 2.2 Derived nouns

Most new nouns are formed by compounding, though I know of one derivational prefix, and there are no doubt others.

The known prefix is **í-**, which forms instrument nouns from verbs:

```
(2.1) jadzε 'take revenge' → íjadzε 'revenge'

kpá 'eat' → íkpá 'food'

βέη 'trap' → íβέη 'trap'
```

With compounds, a complicating factor is that these are most often formed from nouns in the associative construction (§2.3.2), and the outcome varies depending on whether the head noun requires its associate to take genitive case. If it does, the combination most often remains phrasal even if its meaning becomes noncompositional, and even when the head noun is highly bleached, semantically speaking. Head nouns that allow case unmarked associates form true compounds much more readily.

For cases of the first sort, consider the use of **rá** 'head' to form abstract nouns:

```
(2.2) bέwen 'klutz' → ra bewén 'clumsiness' 

εφε 'body' → ra έφε 'solidity' 

θάι 'person' → ra θαι 'humanity, personhood'
```

The fact that high-low-high tone contours are possible in these expressions (witness rá bɛwén) shows that these are not true compounds; and the tone alternations in the associated nouns show that they are marked for genitive case.

**Of** *'person'* is a noun that does not require its associate to take genitive case, and which often forms true compounds. (It loses its coda before another consonant.) It can compound with another noun, and also with the infinitive form of a verb, which is formed by prefixing **u-** and which I may not get to discuss elsewhere in this grammar. Here are some examples:

```
(2.3) baat 'hunt' → θarubaat 'hunter' 

bádi 'translate' → θarubádi 'translator' 

ðuura 'cave' → θaaðura 'cave dweller'
```

Note how vowel length shifts in  $\theta \acute{a}\acute{a}\acute{o}ura$ : this is something that happens only within words (§1.4.1.2). Also note that  $\theta \acute{a}r$  loses its tone in these compounds; that's because they derive from expressions in which  $\theta \acute{a}r$  would have been in the construct state (§2.3.1).

### 2.3 Noun forms

Nouns have (up to) two forms made by adjusting the noun's tonal melody, the construct state and the genitive.

### 2.3.1 The construct state

A noun's construct state is formed by removing all its high tones; nouns that normally have only low tones are not distinguished in the construct state.

In glossed examples, I'll just show construct state nouns in their toneless form, and I'll gloss them as *noun*.Cs.

The construct state is used whenever the noun phrase includes certain other elements besides the head noun: associated nouns (whether or not marked with genitive case), qualitative adjectives (including rára 'one'), prepositional phrase modifiers or complements, and relative clauses. Other elements, including demonstratives, quantifiers, the definite article, number other than rára 'one', and 'adverbial' adjectives like mwasí 'only', do not trigger the construct state.

Because compound nouns are most often derived from the associative construction (§2.4.1), the head of a compound is often toneless.

## 2.3.2 The genitive

A noun is put in the genitive case by first deleting any initial high tones, and then prefixing a floating high tone. The result is always a noun with a highlow contour, with the high linked only to the noun's first mora; nouns that already have that contour are not distinguished in the the genitive.

In glossed examples, I'll represent the genitive case by showing just a prefixed floating high tone, without, that is, in any way indicating the loss of initial high tones.

The genitive is used in what I call the associative construction (§2.4.1), and encodes possession, among other relations. Sometimes a verb's direct object is also marked with genitive case (§5.3.2).

## 2.4 The noun phrase

Most noun phrases consist just of the head noun, or the head noun followed by a definite article (indefiniteness need not be marked). But you can also get fairly complicated NPs. Here's an example:

## (2.4) goom dzéè húú ε lolom đá bwíní ăŋέ bí níp á ɔŋ

```
gɔɔm \acute{o} - dzee húú \ifmmode{\epsilon}=\else - \ifmmode{t}\else - dzee húú \ifmmode{\epsilon}=\else - \ifmmode{t}\else - \ifmmode{t}
```

That example illustrates one significant point: in the absence of an explicit number, Tsw5l5 indicates plurality only on elements (verbs, adjectives, relative clauses) that agree with the head noun.

Let's run through some of the things you can find in a noun phrase other than the head noun.

### 2.4.1 The associative construction

The associative construction is used to modify one noun with another. Typicially, though not always, the modifying (or *associated*) noun takes genitive case; whether it does depends on the head noun. Here are some examples:

## (2.5) goom bwíni

```
goom.CS ó - bwíní
goomfruit GEN - Bwini
"Bwini's goomfruit"
```

### (2.6) pakadi wówuŋ ɔ

pakadî ó- wuwuŋ = hɔ shape.CS GEN - cloud = DEF "the shape of the cloud"

### (2.7) θar étwóru

θar étwóru person.CS honour "person of honour"

### (2.8) kwoma abigádú

kwoma abigádú river.CS Akiatu "Akiatu River"

To an extent, it's semantically predictable whether a noun will require associated noun modifiers to take genitive case: most nouns referring to people or places do not, while most other nouns do. However, there are plenty of lexical exceptions. Possibly this goes bake to some former gender or noun class system, but if so, it has left no other mark on the language.

When the associated modifier is represented by a bound pronoun, you use the A-series pronoun when the head noun normally assigns genitive case, and the B-series pronoun otherwise.

Incidentally, the fact that the associated noun might not have to take genitive case is the main reason why I don't call this the genitive construction.

The associated noun is often a possessor, though relations other than possession are also possible.

The head noun in the associative construction must be in the (toneless) construct state.

An associated noun modifier usually precedes other NP modifiers, though it can be preceded by some adjectives. A noun phrase whose last element is an associated noun modifier cannot take the definite article; any article present will be parsed with the associated noun (as in (2.6), above).

## 2.4.2 Adjectives

Adjectives most often directly follow the head noun, though they can follow an associated noun modifier. This can result in ambiguity, since in principle the adjective could modify either the head noun or the associated one, but it's still a common order, especially when the adjective is heavier than the associated noun:

### (2.9) θar dzee aakwí

θar dzee aakwí person.CS Tsai peculiar "an odd person of Tsai" To make it obvious that an adjective is supposed to be interpreted with the head noun rather than the associated noun, you can use the appositive construction with  $g\varepsilon$  (§2.5).

Adnominally adjectives sometimes agree with the head noun. They do so using the A-series of pronominal markers, which in this case cliticise onto the following adjective. This is required when the adjective has a complement, and rules out non-intersective interpretations; I take it to imply that the adjective constitutes a reduced relative clause of some sort. Here's what that can look like:

```
(2.10) θar σ = labúkpo e dza dífl
θar.CS σ = labúkpo e dzaa dífl
person 3sAN.A = eager on fish fish
"a person eager to go fishing"
```

It's possible there are adjectives that always require agreement, and adjectives that cannot agree. Granted that agreeing adjectives are reduced relative clauses, these would be predicative-only and attributive-only adjectives.

A noun that's modified by an adjective must be in the construct state.

### 2.4.3 Numbers

I only know one number, **rára** 'one', and it's unusual because it has the morphosyntax of an adjective—unlike other numbers, it requires the head noun to be in the construct state, and it can be used predicatively or with agreemnt (meaning 'alone').

rára 'one' normally follows any other non-agreeing adjectives, and other numbers always do.

## 2.4.4 Relative clauses

Full relative clauses normally follow numbers, but precede demonstratives; when the noun phrase includes a relative clause, the distal demonstrative **ɔŋ** is usually preferred to a definite article.

### 2.4.5 Adnominal demonstratives

There are two adnominal demonstratives, proximal **3n** and distal **3n**. I don't consider these adjectives. They're usually the last element in the noun phrase. Note that they differ in form from the demonstrative pronouns, §2.6.2.

## 2.4.6 Definite articles

There are two definite articles, inanimate **=ho** and animate **=ko** (**=ho** becomes just **=o** after a consonant). As noted above (§2.1), the choice of article is semantic rather than lexical.

**=ko** can occur with proper names, but it is optional and not very common. I don't have anything useful to say about when exactly a noun phrase is treated as definite. I think generic nouns usually are, and weather nouns (like **jó** 'water' when it refers to rain) are too. Probably there are plenty of other not-fully-predictable cases.

Definite articles are omitted when they would immediately follow an associated noun modifier, or when a demonstrative is also present. And backgrounded objects that occur right after the verb, with no intervening object marker, do not take the definite article even if they're plainly definite.

### 2.4.7 Other NP bits

There are various other things that can go in a noun phrase that I haven't thought about yet. Two that I've at least put in the wordlist is **mwasí** 'only' and réél 'even', which follow even a definite article. There are presumably also at least a quantifier or two, and presumably an interrogative determiner of some sort.

## 2.5 The dummy noun gε

There's a dummy noun **g**ɛ that can be used (like English "one") in the absence of a contentful head noun:

## (2.11) gε épo hɔ

```
ge épo = hɔ
DN.CS green = DEF
"the green one"
```

**gε** plays an important role in Tsw5l5 prosody, because it can be used appositively to allow heavy nouns to take light modifiers:

## (2.12) káθáróbadi gε húú

```
káθárúɓaɗi gε húú
translator DN.CS good
"a good translator"
Or: "a translator, a good one"
```

**káθárófadí húú** would be ill-formed: a pentamoraic noun cannot be followed immediately by a bimoraic adjective.

In examples like (2.12),  $g\varepsilon$  looks a bit like an attributive particle, and maybe it's on its way to becoming one.

Note that the appositive construction allows for non-intersective interpretatios: (2.12) refers to someone who is good at translating, not someone who is good and also is a translator.

## 2.6 Pronouns (and other proforms)

Now I'll tell you about the pronouns I know about, and also some other interrogative proforms that it's convenient to include here.

## 2.6.1 Personal pronouns

There are both independent pronouns (Table 2.1) and bound ones (Table 2.2). As discussed elsewhere, the bound pronouns can be prefixes, but can also be clitics, with no change in form. The free forms do but the bound forms do

	SING	PL
1	ómó	έgbá
1+2	_	tsέlέ
2	βátε	бéé
3an	ítí	díí
3in	alóŋ	aswέ

Table 2.1: The independent pronouns.

	A-se	ries	B-series	
	SING	PL	SING	PL
1	m	mέ	mi	mí
2	lε	lέ	li	lí
3an	Э	ó	0	á
3in	3	έ	a	а
WH	ú	_	u	_
REFL	kú	_	ku	_

Table 2.2: The bound pronouns.

not mark a clusivity distinction.

The bound forms include two that I label WH. They occur whenever the subject undergoes focus movement, for example when questioning the subject. There's also a reflexive form, used for reflexive possessors.

Free pronouns constitute a noun phrase on their own, and cannot be modified.

## 2.6.2 Demonstrative pronouns

The two demonstrative pronouns are distal **gaaŋ** and proximate 'gɛɛn'. These are plainly related to locative adverbs **kááŋ** 'there' and **kéén** 'here', as well as to adnominal demonstratives **ɔŋ** and **ɔn**.

### 2.6.3 Indefinites

For referential indefinites, use generic nouns like  $\theta$ ár 'person, someone', tsi 'thing, something', and noj 'place, somewhere'. There are also forms derived from question words using the focus particle réél 'even', like re réél 'anything', but I have yet to work out their precise distribution. And presumably there are indefinite determiners, but I don't know about them yet.

## 2.6.4 Interrogatives

Table 2.3 gives the main question words. It includes not just pronominal question words, but also adjunct ones. See §5.5.1.2 for the basics of question syntax.

<b>ólí</b>	'who'
31	'what'
เบรบ	'where'
re átáŋ	'when'
ráká	'how much, to what extent'
<b>ókw</b> ási	'how many, how often'
selí	'how'
rodu	'why'
	re roso re átáŋ rókó ókwósi selí

Table 2.3: Interrogative proforms.

## Chapter 3

# Verbs and the verb complex

This chapter surveys topics relating to verbs and the verb complex, while mostly avoiding discussion of clausal syntax.

## 3.1 Valency and lexical aspect

Every verbs allows an internal argument. This might be a patient or theme, or an argument you might think of as semantically oblique, such as a destination, source, or location.

There are no ditransitives. To express more than one internal argument, you need multiple verbs, likely in the applicative construction §5.4.2.

Verbs differ according to which they also have an external argument, an instigator (agent or cause) or an experiencer. In a verb with an external argument, the external argument becomes grammatical subject, and the internal argument becomes object. If there's no external argument, the internal argument becomes subject.

Sometimes that sort of thing is described in terms of a contrast between agentlike and patientlike arguments, but experiencers are patientlike rather than agentlike, and themes are neither.

Light verb constructions and constructions with a cognate object are common. The object in these constructions is subject to the same conditions on dropping as regular objects, suggesting that these constructions are always basically transitive. If this is correct, then no Tswóló verbs are underlyingly unergative (with only an external argument).

There's also a common pattern whereby an unaccusative verb takes the dummy object  $\epsilon \Phi \epsilon$  'body'. You can think of this as involving a sort of possessor raising, maybe. (3.9), below, gives an example.

It's possible that there are morphosyntactic differences that correspond systematically to the difference between, say, agents and experiencers, or patients and themes. If so, it would be worth distinguishing additional transitivity classes.

Verbs also fall into different aspectual classes. The distinctions between stative and nonstative verbs and (among statives) between durative and non-durative verbs are important to the interpretation of viewpoint aspect (§3.3.7).

Telicity is also important, but that can be affected by the nature of the object, so does not characterise a verb's lexical class. Also, telicity is important to viewpoint aspect primarily because it implies that the described event is bounded in the future direction. (This induces a past-oriented interpretation in the present perfective, which is the default.)

### 3.2 Derived verbs

There are many derived verbs. The two productive derivational processes are compounding and prefixing with **ká**. There are also many verb pairs that display one of four sorts of stem alternation, often with predictable semantics.

### 3.2.1 ká-

This is the only verb-deriving strategy that makes use of a prefix. It can derive verbs from both adjectives and nouns. The **a**, but not the tone, is dropped before another vowel.

Here are some examples:

```
(3.1) béwet 'klutz' → kábéwet 'act clumsily'
hóŋmá 'proud' → káhóŋmá 'act proudly'
lagólo 'smiling' → kálágolo 'feign happiness'
tsuֆa 'fool' → kátsuֆa 'act foolish'
Θάτόβαδὶ 'translator' → kάθάτόβαδὶ 'serve as translator'
```

The resulting verb characterises the manner of someone's behaviour, without implying that they always have the characteristic in question, or even that they genuinely have it now. For example, someone might **kátsuφa** even if they are not really a fool, and even if right now they are only pretending.

## 3.2.2 The **o**-pattern

This is the most common pattern that derives verbs from verbs. I call it the  $\upsilon$ -pattern because the alternations that characterise it invite the thought that it derives from a former prefixed  $\upsilon$ -. In this pattern, the derived verb often characterised by a raised vowel and a medial w, and always has an initial high tone.

When the base verb's initial vowel is  $\mathbf{a}$ , it raises to  $\mathbf{o}$ , or  $\mathbf{o}$  if there's a [+ATR] vowel in the next syllable. Otherwise, a mid vowel raises to high, with no effect on its ATR specification. There's a secondary change whereby a high back vowel lowers to mid if it follows a medial  $\mathbf{w}$ .

The inserted **w** interacts in distinctive ways with labials and palatals. You always get **dw** instead of **yw**; **cw** is allowed to surface as [[w]; and there are

no **j**-initial verbs, so it's unknown what would happen to **jw**. With labials, there are a few cases and patterns.

- m p b 6 can either just gain medial w or become labiovelar, with no w; in the latter pattern, both b and 6 become gb.
- $\beta$  consistently alternates with plain w.
- **Φ** alternates with eitther **xw** or **hw**.

These patterns suggest that this derivation was productive both before and after a sound change that produced labiovelars from labial + w sequences. Here are some examples:

```
(3.2) dot 'die' → dwót 'kill' 

•• pú 'blow' → xwó 'blow on' 

•• kpá 'eat' → kpwó 'feed' 

•• pɔ 'do' → kpó 'help' 

•• cík 'cut' → cwík 'use for cutting'
```

Verbs derived in this way have either applicative or causative semantics; when causative, it's often possible to think of the causee also as a beneficiary (e.g., kpwó 'feed') or maleficiary (dwót 'kill').

Tsw5l5 has no ditransitive verbs, and these are no exceptions. Though you might expect, say, **cw1k** 'use for cutting' to have two objects, both the thing cut and the instrument, in fact it can take only one syntactic object, the instrument; to express as well the thing cut, you need the applicative construction (§5.4.2).

On occasion, new verbs will be formed by analogy with these forms, but it is not common. When this is done,  $m\ p\ b\ 6$  accept a medial w, and do not become labiovelar.

This pattern als applies sporadically to nouns:

```
(3.3) mójól 'guidance' → mwójól 'to guide, to assist' mulú 'feud' → mwólú 'to feud with'
```

### 3.2.3 The **5**-pattern

This makes verbs out of adjectives and nouns, with causative semantics. It tends to insert a medial  $\mathbf{w}$ , with the same sorts of complication you find with the  $\mathbf{o}$ -pattern. Additionally, if the base begins with a vowel, you get an onset  $\mathbf{w}$  (after which a high back vowel becomes mid). (No verbs are vowel-initial, so this issue never arises with the  $\mathbf{o}$ -pattern.) Stem vowels do not raise, but there is always a high tone on the stem-initial vowel. If the first stem vowel is long, it will often shorten.

Here are some examples:

```
(3.4) bétó 'long' → gbétó 'to lengthen, to stretch' 

udwa 'sick' → wódwa 'to sicken'
```

This pattern is more productive than the **v**-pattern. Synchronically, it's possible to think of it as involving a **w**- prefix.

## 3.2.4 The i-pattern

This raises and fronts the first stem vowel, and makes it [+ATR]; if the stem begins in a vowel, the derived verb usually begins in  $\mathfrak{z}$  or  $\mathfrak{c}$  rather than  $\mathfrak{z}$ . There's always an initial high tone.

This makes verbs from adjectives and maybe (I'm not sure yet) nouns, with inchoative semantics. Like this:

```
(3.5) Ékal 'awake' \rightarrow jíkal 'to wake up' lapo 'tall' \rightarrow lépo 'become tall' \rightarrow lésóòwe 'sweaty' \rightarrow miiwího 'uninterested' \rightarrow míiwího 'lose interest'
```

## 3.2.5 The l-pattern

The 1 pattern seems to have involved a v1 prefix. The vowel simply vanished, and the 1 either filled an empty onset slot or somehow made accommodations with the existing onset. If that's a nasal or fricative, it becomes a homorganic plosive that agrees in voicing (nasals become plain voiced,  $\mathfrak c$  becomes  $\mathfrak f$ ). In that case, or if it was already a plosive, the 1 surfaces after a labial or velar plosive, and otherwise vanishes. Stem-initial 1 becomes  $\mathfrak d$ , initial  $\mathfrak r$  becomes  $\mathfrak c$ ,  $\mathfrak h$  becomes  $\mathfrak o$ . If the stem begins with a vowel or  $\mathfrak w$ , 1 is simply prefixed. If the first stem vowel is long, it will often shorten. And, as in other derivations, there's always a high tone on the first mora.

This pattern applies to noun bases. The resulting meanings are usually unsurprising, but there are multiple patterns. Here are some examples:

```
(3.6) gólo 'smile' → glólo 'charm'
wíího 'interest' → lwího 'fascinate'
zímí 'tooth' → dzímí 'nibble on'
```

### 3.2.6 Zero derivations

Zero-derivation of verbs (or of non-verbs from verbs) is not tremendously common, but it does happen. There are two main patterns: there are cognate verb-noun pairs that correspond to unergative verbs in other languages, and there are cases where one of the derivational strategies I have mentioned does not result in a difference in form, but both the source word and the derived verb have been retained.

## 3.3 The verb complex

The Tswóló verb complex comprises two clusters; each cluster is tightly knit, and they're usually adjacent to one another. The first cross-references the subject and includes past tense and negation markers; the second includes modal and aspect markers, the verb itself, and in transitive clauses either the object itself or an object marker.

Often, the subject marker is the only member of the first cluster present in a clause. When this happens, it joins the second cluster.

Let's look at all these bits.

## 3.3.1 Subject markers

In most main clauses, the subject is cross-referenced by the A-series markers (see Table 2.2), in subordinate clauses usually by B-series markers.

I'll treat these as affixes when they occur as part of the verb complex, and I take them to express true agreement (rather than clitic-doubling). Vowel hiatus is not tolerated when they occur before negation (the negation marker reduces to **m** after a vowel), but is when they occur before the habitual and progressive markers, which could imply that they're more tightly bound in the former context. (All the past tense markers are consonant-initial, so the issue does not arise with them.)

Even as clitics, the subject marker always attaches to another member of the verb complex: a tense auxiliary, a modal or aspectual clitic, or the verb itself. This means that though there are adverbs that can come between the tense auxiliary and the verb, they cannot come between the subject marker and the verb when no tense auxiliary is present (cf. §5.1.3).

I take the subject markers to spell out true agreement, though I have no decisive argument in favour of this analysis.

The main other issues these raise have to do with when you use what I'm calling the *wh* form and how you choose between A-series and B-series markers, and I treat those issues elsewhere (or don't, if I ran out of time).

### 3.3.2 The high tone

The head verb always surfaces with a high tone on its initial syllable. It's easy to show that this high tone is not always lexically specified: when it is not, it does not appear in derived forms such as the verbal noun (§3.4.1). I take it to represent some functional head, presumably the one to which the verb raises. I gloss it (when I remember to gloss it) as PRED, for *predicate*; this gloss is motivated primarily by the high tone that occurs on the nonverbal copula la, and maybe the two high tones should be considered distinct.

## 3.3.3 The object

In a clause with an overt object, the object must be represented within the verb complex. This can be done in two ways: with an object marker (always taken from the B-series) or with the object itself.

When the object itself is within the verb complex, it must follow right after the verb. In this position, it can form a prosodic compound (§1.4.3.4) with the verb. When there's a separate object marker, the marker will attach directly to the verb, and the object might be separated from it by an adverb or somesuch, or it might be dropped entirely.

Factors of a few different sorts affect whether the object will be an element of the verb complex. Objects that are part of the verb complex are typically backgrounded, and not highly individuated; this is consistent with them being referential, even in a way definite, and does not rule out most noun phrase modifiers. (The definite article, however, cannot occur on an object that is part of the verb complex; see (5.1) for a relevant example.) However, even objects that are very much backgrounded can end up outside of the verb complex: they must vacate it if some other constituent needs to move to the focus position after the verb, and there's also a tendency for prosodically heavy objects to leave the complex as well.

When the object occurs outside the verb complex, and does not immediately follow it, it will take genitive case-marking. Such an object still gets cross-referenced by an object marker in the verb complex.

There's also the possibility of simply omitting the object. When it's a pronominal object that's represented by an object marker in the verb complex, this is done far more often than not. It's less common to omit even the object marker, though this can sometimes be done when the object is sufficiently generic, if the prosodic context allows it (cf. §1.3.2).

### 3.3.4 Default TAM

It's fairly common for the verb complex to include no overt indication of tense, aspect, or modality. Stative verbs get interpreted in the present tense, which is probably what you'd expect. Non-stative verbs are a bit more complicated, because they default to perfective aspect, and it's often difficult to think of them as strictly present tense.

Let's first distinguish between durative and non-durative verbs. Non-durative verbs like  $\mathbf{g}\hat{\mathbf{u}}$  'arrive' and  $\mathbf{x}\hat{\mathbf{o}}\mathbf{p}$  'cough' sometime can be aligned fairly closely with the present moment, at least on the time scales that usually matter to people, and a sort of narrative present is possible with them. (For example, it's pretty common to announce  $\mathbf{mg}\hat{\mathbf{u}}$   $\mathbf{e}\hat{\mathbf{p}}\mathbf{e}$  a 'I arrive' when joining a group of pals.) But this is not possible with durative verbs, which cannot describe an event limited to the present moment and which, when perfective, cannot describe an event overlapping with the present moment.

When durative verb occur with unmarked TAM, what happens is that one of the described event's temporal boundaries is aligned fairly closely with the

present moment, in such a way that the event is either wholly past or wholly future. If the event is described as having a telic structure, it will inevitably be the end of the event that's focused, and thus the event will be placed in the past; otherwise, it could be either the beginning or the end, resulting in future or past meanings, respectively.

Whether a given description portrays an event as telic depends in general not just on the verb, but on the object and on the semantics of the object. Eating fish can be an open-ended activity, whereas if you're eating a fish, you'll be done when that fish is all eaten. In the latter case, the event description implies that the event has a final boundary, and in a Tsw5l5 construction with unmarked TAM, that final boundary will be highlighted, and situated in the recent past.

This must normally be the very recent past—the last couple of minutes or so—and there's an implication of present relevance that implies that the result state of the described event continues into the present. (So you might think of this as a sort of recent-past present perfect.) Take (3.7), for example:

## (3.7) mpó bwíní ékal aa

```
m = 6 po bwini ékal a
1s.A = PRED do Bwini awake PTCL
"I woke Bwini up"
```

You wouldn't say this if you knew that Bwini had already fallen back asleep (you'd use the hodiernal past tense).

When the verb phrase does not describe a telic event, its use in the default present perfective requires an initial or final boundary to be supplied from context. That boundary is then aligned with the present moment in such a way that the event as a whole does not overlap the present. Here's a simple example:

### (3.8) mtá pí aa

```
m = 6 tá pí a
1s.A = PRED LV run PTCL
"I ran"
Or: "I'll run"
```

You could use this sentence upon arriving to let people know how you got there, or to announce what you are about to do.

Non-durative verbs can also be used this way, with either a recent-past or immediate-future interpretation. For example, **mgú ɛ¢ɛ a** '*I arrive*' could be used right after your arrival, or to promise imminent arrival ("I'm coming!").

	AFF	NEG
Hodiernal past (HOD)	ŋέ, gέ	ŋɛm, gém
Hesternal past (HEST)	tíí	tiim
Plain past	kó	kɔm
Nonpast	–	(a)m

Table 3.1: The tense and negation auxiliaries.

#### 3.3.5 The past tenses

There are three past-tense auxiliaries, each of which also has a negative form; these are given in Table 3.1, along with the nonpast negation auxiliary. The hodiernal past markers take their g-initial form when following the A-series first person singular marker m.

I call these auxiliaries, as if to imply that they are independent forms. However, they can only occur with a subject marker, and it would be possible to analyse the tense markers also as bound forms. I'm not sure what difference that would make. One consideration is that the auxiliaries with [-ATR] vowels harmonise with [+ATR] pronominal prefixes, something that does not otherwise occur with independent lexical items.

The choice between past tenses is not as simple as the labels might make it seem, for two general sorts of reason. First, you may know that something occurred but not know exactly when it occurred; in that case, you use the hesternal past if you know it was either today or yesterday, and otherwise the plain past.

Second, the exact time periods associated with the markers can vary with context. Especially, a momentous event might be described with the hodiernal past tense even if it occurred a day or two ago:

### (3.9) jablá šŋέ dót εφε loo

```
jablá ο- ηέ ΄ dut εφε loo
Jabla 3sAN.A- HOD_PST PRED die body PTCI
"Jabla died"
```

Jabla being an especially notable person, the use here of the hodiernal past tense would be appropriate even two days after the death.

### 3.3.6 Negation

Negation is marked in the verb complex's first cluster. If there's a tense auxiliary, it gets suffixed with -m and loses its high tone. Otherwise, it combines directly with the subject marker. With the A-series first person singular m, you also get a, resulting in mam. Whether this a is part of the negation marker or a separate nonpast auxiliary I'm not sure; a is an unlikely epenthetic vowel,

though, so I assume it is one of those two, and that it is dropped after the other subject markers to avoid vowel hiatus.

The same marker is used for both clausal and constituent negation; these are distinguished by focusing a negated constituent (§5.3.2).

Under circumstances I don't fully understand, final verbs in the serial construction (§5.4.1) can be negated with the same m<sub>I</sub>- prefix that derives privative adjectives (§4.1.1).

### 3.3.7 Modality and aspect

There are four clitics that express various shades of modality (including future tense) and viewpoint aspect. These form a paradigm, which is to say, you can't separately express modality and aspect in the same clause. Table 3.2 shows the forms.

future ('will')	ф1=
modal ('may')	=ćı
imperfective	ì=
habitual	ê=

Table 3.2: The modality and aspect clitics.

The tone-marking on three of the clitics might give you pause: it's not my habit to mark low tones, and I have promised that a single mora cannot be underlyingly linked to multiple tones. Here's what's going on:

- After modal rae and imperfective i=, most verbs end up with a rising contour on their first mora. The exceptions are monomoraic verbs with a falling contour; those end up with a simple low.
- After habitual ê=, all verbs end up with an initial falling contour, over the first two moras, unless the verb is monomoraic. All following moras have low tones—regardless of the length of the verb or the number of high tones it might display in other contexts.

Given the tonal processes I posited in §1.4, all these patterns fall out if we assume that the three clitics involved all sponsor low tones that link to the first mora of the following verb. I use the unusual tone-marking to reflect this analysis.

The future marker **\delta i**= is sometimes a plain future:

### (3.10) an neek du bwini a gú déé, m þi bwá a díl a aa

```
an neek du bwíní a = gú de at after c Bwini c 3s.b = arrive PTCL c d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d = d
```

<sup>&</sup>quot;After Bwini arrives, I'll cook the fish"

However, it can also have a plainly modal use, as here:

### (3.11) ε du bwíní a gú dέέ, m φi bwá a díl a aa

```
ε ɗu bwíní a=gú dε
if C Bwini 3sB= arrive PTCL
m- φι bwá=a díl=hɔ a
1s.A- MOD cook=3s.B fish=DEF PTCL
```

"If Bwini arrives, I'll cook the fish"

Unlike the previous example, this does not assert that the speaker will actually cook the fish, a clear sign that something modal is going on. Though it doesn't follow that the two instances of  $\Phi I =$  are fundamentally different: many linguistics think that the future is itself a modal category, and I'm inclined to agree. (But I'll still gloss  $\Phi I =$  as FUT when that seems reasonable.)

In neither of the examples does  $\Phi$ I= occur in the adjoined subclause. This does not reflect a ban on tense-marking in subordinate clauses: if semantically appropriate, a past tense auxiliary would be fine here. It's more that the role of the adjoined clause is to narrow down the interpretation of the modal in the main clause. In (3.10), we have a future, and the subclause tells us when in the future the thing is going to happen; and in (3.11) there's a conditional, and the subclause tells us under what conditions the thing will happen. That's to say, semantically speaking there's no need for a second modal operator, the one in the main clause is enough.

**r**<sup>3</sup> operates similarly to **φI** except that it expresses a weaker modality, more like "may" than "will," so you're less likely to think of it as just a future marker.

Both  $r\mathfrak{d}$  and  $\phi i$  can express epistemic as well as circumstantial modality; see (3.21) for an example of the latter.

Imperfective **i** has two main uses, progressive and habitual. Neither is available with stative verbs, which therefore cannot occur in the imperfective. The progressive describes an ongoing activity. When used with a telic predicate, it cancels the expectation that the event reached an end-point:

#### (3.12) mgé ibwă a díl a léé, gwaçí já ha ěné bí táram aa

"I was cooking the fish, but it started raining"

This tells us, roughly, that I intended to cook the fish, but stopped because of the rain; which is to say that I would have cooked the fish if it hadn't started raining. In this sort of use, i clearly has a modal significance.

Habituals encoded with the imperfective particle also have a modal sense, in that they can describe a disposition that so far has never been realised:

#### (3.13) mi ló θár oo otí nóó, m i pŏ a mojol óku aa

```
mi = 6 - l \circ \theta \acute{a} c oo otí no 1s.B = PRED - COP person big already PTCL m = 1 = 6 - p \circ a mójól 6 \circ c oku a 1s.A = IPFV = PRED - do = 3s.B path GEN REFL PTCL
```

"I am an adult now, I make my own path"

This would be appropriate uttered at the culmination of the coming of age ceremony, when no actual making of one's own path has yet taken place. What matters is that the speaker now has a disposition, not whether the disposition has been realised.

This sort of purely dispositional meaning is not available with the dedicated habitual particle **ê**=, which is warranted only by actual patterns of behaviour: **m é pô a mójól óku aa** would be appropriate only when uttered by someone who'd been making their own way for a significant amount of time.

**ê**= can also be used when describing a particular event, to indicate that the subject has done something characteristic. Maybe what's happening is the pattern of behaviour is being made a presupposition, rather than part of the asserted content. Here's an example:

### (3.14) bwíní lo ò é kpâ we á Idikám goom o noo

```
bwíní lo g = \hat{e} = \hat{f} - kp\hat{f} we f = \hat{f} idikám 
Bwini TOP 3sAN.A = HAB = PRED - eat use_up = 3pl.B completely 
goom = ho no 
goomfruit = DEF PTCL
```

"Bwini ate all the goomfruit, of course"

Some of the work here is being done by the final particle **no**. I think it's inviting the listener to take what's being said as sort of obvious. (The same particle occurred in a subordinate clause in (3.13).)

Unlike imperfective **ì**=, habitual **ê**= can be used with stative verbs. Only the episodic sort of interpretation is available:

### (3.15) agél škó é hî a ılıbálí aa

```
agél 3-k5 ê = 6-hi = a Ilibáli a Agel 3sAN.A-PST HAB=PRED-be = 3s.B unflappable PTCL "Agel was characteristically unflappable"
```

### 3.4 Periphrastic constructions

There are constructions using auxiliary verbs that express imperfectives and perfects, let's talk about those, starting with the verbal noun, which is used for both of them.

#### 3.4.1 The verbal noun

The verbal noun is formed by initial CV reduplication. Here are some examples:

```
(3.16) gbé 'speak' → gbégbé

jadz 'take revenge' → jájadze

kíí 'urinate' → kíkíí

swá 'give' → sáswá

coo 'suck' → cócoo
```

As you can see from those examples, the reduplicating syllable always gets a high tone and is never long. Labiovelars are fully reduplicated, confirming that they are unit phonemes; true medial consonants like the  ${\bf w}$  in  ${\bf sw\acute{a}}$  are not copied.

The fact that the reduplicant never includes a long vowel may imply that a clitic boundary or some equivalent is inserted between the reduplicant and the base, or just that reduplications are prosodically exempt from intraword vowel length shifting  $(\S1,4,1,2)$  for some reason.

There are two ways in which a verbal noun can encode an object. In the periphrastic constructions I'm concentrating on here, there need be no difference from a regular verb: the object either directly follows the verbal noun, or the verbal noun takes an object clitic. In this case, the verbal noun clearly nominalises the verb phrase as a whole. When the object is encoded this way, it's the whole VP that's been nominalised, and various other things can end up as part of the resulting nominal (see (3.21) for an example that includes a following verb in a serial construction).

The object can also take the preposition **e** 'on'. Here it's possible to think the verbal noun is strictly smaller, and nominalises only the verb, but I haven't really studied this and I'm not sure. In some cases, the preposition seems to be added only to satisfy prosodic constraints

In other constructions, when a verbal noun occurs with a subject, the subject is encoded as a possessor. In this case an object can only be expressed with **e** 'on', and must follow the subject.

#### 3.4.2 The imperfective

The periphrastic imperfective is formed using the verb **koo** 'live, stay' as an auxiliary. Here's an example:

### (3.17) ο kóờ tsótsư mégí du ílágo ho ε ní mikal noo

```
    5 = 6 - kuu tsútsu mégí
    3sAN.A = PRED - IPFV put.VN hatred
    du ílágo = ho ε = 6 - ní mi - kal no
    C pig_rabbit = DEF 3sIN.A = PRED - go NEG - see PTCL
    "He is complaining that the pig rabbit disappeared"
```

(5MOYD 1556)

This construction has a slightly different range of possible meanings than the imperfective particle **ì**. When it's used to express a habitual meaning, it is more like habitual **ê** than like **ì**: it can describe only actual patterns of behaviour, not unrealised dispositions, and it can be used to describe episodic events as characteristic. It can also be used to express a planning-stage progressive, a meaning not available with **ì**. Here's an example of that:

### (3.18) mέ kuu bábaat óŋé aa

```
mé = ó- kuu bábaat óŋé a
1pl.A = PRED - IPFV hunt.VN today PTCL
"We are hunting (later) today"
```

With the imperfective particle i this could only mean that we are hunting **now**, and the inclusion of **óné** 'today' would be pretty strange.

Unlike i, the periphrastic imperfective can be combined with other modal and aspectual particles. For example, this is the only way to express a future progressive. Here's an example with a conditional:

#### (3.19) ε du mí ní abí lóó, bwíní ο φι kóù xíxíí aφal aa

```
ε du mí = ní abí lo

if C lpl.B = go now PTCL

bwíní σ = φι = ό kuu xíxíí aφal a

Bwini 3sAN.A = FUT = PRED IPFV sing.VN still PTCL

"If we go now, Bwini will still be singing"
```

I'm afraid I'm not sure what decides whether a speaker will choose i or the periphrastic construction in contexts when both are possible and have the same meaning. Undoubtedly prosody plays a role, and I expect that information structure does as well, but the details elude me.

### 3.4.3 The perfect

A perfect can be formed with a copula followed by the verbal noun. This is used to mention events prior to the topic time, but usually without shifting the topic time. This especially allows resultative, experiential, and evidential uses. The perfect can also be used as a sort of relative past tense, in which case it does shift the topic time.

Here's an evidential example:

#### (3.20) θáár ló táta kéén maa

```
θάr \acute{\circ} - lo táta kéén ma person PRED - COP be\_at.VN here PTCL "Someone has been here"
```

And here's an example in which the perfect encodes a relative past tense, allowing the past tense to be embedded under a modal:

### (3.21) méné ro hi sósóm mikal a an kwómá ho aa

mé- né rò = ó- hí sósóm mi- kal = a an 1pl.A- HOD\_PST MOD = PRED- be drop.VN NEG- see = 3s.B at kwómá = ho a river = DEF PTCL

"We may have lost it by the river" (5MOYD 1548)

## **Chapter 4**

## Other word classes

This chapter covers word classes about which I have something to say, but not enough to want to give them their own chapters.

### 4.1 Adjectives

Adjectives constitute a large and open class.

It is easy to distinguish them from verbs and nouns. Like nouns, but unlike verbs, they must occur with a copula when used predicatively. Unlike nouns, they require subject agreement when used predicatively. Either the verbal copula **hí** or the particle **lɔ** can be used.

Adjective agreement is a bit peculiar. In a full clause, agreement is expressed with B-series pronominal markers, which cliticise onto the preceding copula. Superficially, this looks like regular object marking, except that the marker agrees with the subject, not with the adjective (whatever that would look like). This means that when the verbal copula is used, the subject gets cross-referenced twice.

Adnominal adjectives sometimes occur with agreement as well. In this case, it's the A-series pronouns that are used, and they cliticise onto the adjective. I take agreeing adjectives to be reduced relative clauses, which would explain the need for agreement but not the use of A- rather than B-pronouns.

#### 4.1.1 Derived adjectives

There are several common ways of deriving adjectives, mostly from nouns. All involve prefixes whose final vowel drops before vowel-initial stem. Here they are:

**Ili-** forms adjectives describing things that are like characteristic instances of the stem noun. Here are some examples:

```
(4.1) bálí 'rock' → ılıbálí 'rocklike, imperturbable' → ılıdííl 'fishlike, slippery, difficult to grasp' nahal 'nest' → ılınahal 'nestlike, welcoming, intimate'
```

You'll notice that the vowel in **díl fish** has its vowel lengthen in **ɪlɪdííl**. Such vowel-lengthening always occurs when **ɪlɪ-** is prefixed to a monomoraic consonant-initial stem; **ada-**, the only other bimoric prefix I know about, behaves the same way, so maybe this process is fully general. Though the result goes against Tswɔʻlɔʻs general preference to have long vowels only in word-initial syllables, it could be a way to satisfy the preference for iambic structures.

la- forms ornative adjectives, like this:

```
    (4.2) gólo 'smile' → lagólo 'smiling, charming'
    εφε 'body' → lεφε 'charismatic, forceful (in personality)'
    élwa 'relaxation' → lélwa 'relaxing'
```

In addition, it's striking how many apparently underived adjectives begin with 1. Sometimes (e.g. lapo 'tall') it's possible to imagine these as ornative adjectives whose original stem has been lost, but in other cases (e.g. l5hi 'asleep') this seems unlikely.

There are also ornative adjectives formed from  $\eta\epsilon$ -, for example  $\eta e wiho$  'interested'. There is no obvious semantic difference between la- and  $\eta\epsilon$ -.

Privative adjectives are formed with mi-:

```
(4.3) εφε 'body' → mεφε 'invisible, subtle' 
kíí 'urine' → míkí 'parched' 
táhil 'pattern' → mɪtáhil 'disorganised'
```

Some adjectives, including all adjectives in **III-**, can be negated with **mI-**:

```
(4.4) hóŋmá 'proud' → mihóŋmá 'shameless' → milnahal 'uncomfortable, unwelcoming'
```

ada- has about the same semantics as English "-able":

```
(4.5) gb55t 'hunt (a territory)' → adagb55t 'good for hunting' 

kpá 'eat' → adakpáá 'edible' 

sák 'to count' → adasáák 'measurable'
```

These adjectives can all be negated with m(1)-.

### 4.2 Ideophones

As I discussed in §1.5, ideophones have a number of phonological features that distinguish them from words of other classes. They also have a distinctive distribution, occurring (only) either as clausal adjuncts or as complements to the light verb **du** 'say'.

Ideophones are expressive. Many are narrowly onomatapoetic, others describe striking visual characteristics or manners of motion, and still others express emotional states. In a sentence containing an ideophone, the ideophone will probably be the prosidic high point, and it is very rare for such

a sentence to put narrow focus on any other element of the sentence. When used with the light verb du, ideophones are rarely followed even by a sentence final particle, and when they occur before pause, they are exempt from normal prepausal intonation.

Ideophones constitute a large and open class. New ideophones can be formed by sound-symbolic derangement of existing vocabulary, but they are often instead just made up. They are rarely if ever borrowed, and there are no fully conventionalised ways of deriving them. In many languages, ideophones are often also members of other word classes. For example, English "drip" is arguable an ideophone, but it's also a noun and a verb. That happens rarely if ever in Tsw5l5.

### 4.3 Prepositions

There are three prepositions, all basically locative. **an** and **an** are the general locative prepositions, like "at," but encode a proximity distinction, distal **an** as against proximal **an**. **e**, which I gloss as "on," seems to have at its semantic core some notion of dependence in addition to location.

Proximal **an** can only be used for spatial locations or past times, distal **an** can also be used for future times.

I consider distal **an** the less marked of the two, and will gloss it simply as "at"; I'll gloss **an** as "at.PROX."

More varied prepositional meanings generally use a relational noun with a genitive modifier. For example, "on top of the hill" would be **e rá úbí**, using **rá** 'head, top'.

Preposition phrases can be clausal adjuncts, as well as complements to nouns, adjectives, and verbs. There are a few patterns.

With noun and adjective complements, as well as a verb's demoted object, you most often get **e** 'on'. Here's an example with an adjective:

### (4.6) bwíní ló a hóŋmá e obi oku aa

```
bwíní ó-lo = a hóŋmá e obi oku a 
Bwini PRED-COP = 3s.B proud on child.CS REFL PTCL 
"Bwini is proud of his children"
```

With verbs, meanings you might think of as prepositional are often encoded with verbs in what I call the applicative construction (§5.4.2). However, that is not always possible; for example, there's no verb that can be used to introduce a source of motion, so you have no choice but to use **an** or **an** 'at, from'. And truly circumstantial locations are more often given with these prepositions, not with, say, **ta** 'be at' (which is rarely used in the applicative construction).

The complement of a preposition cannot normally be a weak pronoun. There's one exception, though: when a relative clause relativises the complement of a preposition, the appropriate third person B-series marker will occur

as a resumptive pronoun. It fuses with **e** to form **ee** (singular) or **èé** (plural). Here's an example:

### (4.7) móla žkó bí çík a kwata ɗa akó i pàá ee ɔŋ aa

```
ó-bí
            a - ká
                                  cik = a
Molla 3san.a - pst pred - start cut = 3s.b
    kwata
                          a - kź
                                      ì =
                                              ó-paa e
    branch.cs
                                  IPFV = PRED - sit
               REL.S
                       3s.B - PST
                                                       on = 3s.B
    = oŋ
            a
    = DEM PTCL
```

"Molla started cutting the branch on which he was sitting" (5MOYD 1552)

There are a handful of other words that you might think of as prepositions. The one I'm currently least sure of is  $\acute{u}\acute{u}$  'when, during', which can take noun complements. Phrases in  $\acute{u}\acute{u}$  are always circumstantial adjuncts, never the complement of a verb, noun, or adjective; and unlike the three core prepositions,  $\acute{u}\acute{u}$  can take a clausal complement.

### 4.4 Final particles

Most clauses, as well as certain kind of adjunct, conclude with what I'll call a final particle.

There are two main kinds of exception. First, when a clause ends with an ideophone, final particles are rare. Second, when the final constituent of a clause is an embedded clause, only one of the two will take a final particle; usually this will be the matrix clause, but with *say*-type verbs it can be the embedded clause instead.

Final particles have various pragmatic and discourse-oriented functions which, I'm afraid, I still don't understand very well. In declarative clauses, the plainest alternative is  $\mathbf{a}$ , which is very common; I know that  $\mathbf{wa}$ ,  $\mathbf{da}$ , and  $\mathbf{d\epsilon}$  are used for polar, content, and topic questions, respectively; after that, I'm still going mostly on instinct.

As I mentioned in Chapter 1 (§1.4.4.5), it's not entirely clear whether final particles have their vowel length or tone underlyingly. To some extent, at last, it seems possible that these are assigned by general intonational processes, and need not be lexically specified. But I don't know if that's always true.

## **Chapter 5**

# Simple clauses

When I say a clause is simple, I mean that it doesn't contain and isn't contained in another clause. (And that's all I mean.) Put another way, I'll be talking about clauses that no more than one subject marker. It turns out that this will include several constructions that involve more than one *verb*.

### 5.1 Really simple clauses

I'll start with simple declarative clauses with one verb and no informationstructural adjustments: really simple clauses.

### 5.1.1 Subject marking

In all such clauses, the subject is cross-referenced with the A series of pronominal marker. This is also true in most other main clauses; the main exceptions I know about are hortative clauses, which use the B series, and imperatives, in which the implied subject is not cross-referenced.

#### 5.1.2 svo

When a really simple clause has both subject and object NPs, the constituent order is SVO. Both subject and object NPs can be omitted when they're represented within the verb complex, so SV, VO, and V orders are also possible even in transitive clauses.

Naturally, in intransitive clauses the available orders are SV and V. Clauses in which the subject is focused will end up as VSO or VS (§5.3.2).

### 5.1.3 Adjunct placement

Let's look at a few different sorts of adjunct.

#### 5.1.3.1 Clause-peripheral adjuncts

Adjuncts of more or less all sorts can occur clause-peripherally, set off by pause; multiple such adjuncts can occur, and in more or less any order. It's far more common for them to occur initially than finally, but the clause-final position is definitely available.

Adjuncts that themselves comprise full clauses are especially likely to occur in this position, and when they do, they are typically followed by final particles, just like matrix clauses. Chapter 3 included two examples, (3.10) and (3.11); here's another:

### (5.1) úú du jó ho ε ígla hó εφε léé, zíhá lo tsu kabí gup wálowi loo

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```

"As soon as the water boils, put the dumplings in the cooking-pot!" (5MOYD 1555)

Most sorts of adjunct that occur clause-peripherally can also occur more integrated into the clause. Scene-setting and topic-shifting topics are exceptions, as I think are speaker-oriented adverbials such as  $e dzwú \epsilon \phi \epsilon g \epsilon húú$  'fortunately'.

### 5.1.3.2 Circumstantial adjuncts

These are adjuncts that describe time, location, reason, purpose, and such. They can occur either before or after the subject (if there's an overt subject), and also between the tense auxiliary and the main verb, as well as after the verb. The adjunct's position can have semantic consequences, though right now the only example occurring to me is **ípí** 'quickly', which can mean 'immediately' in any position, but 'speedily' only when it follows the verb.

#### 5.1.3.3 Argument-oriented adjuncts

Subject-oriented adjuncts are ones that describe the subject and their involvement in the eventuality being described. These can be plain adjectives, but there are other possibilities, such as e wéélá ku 'on purpose' and e  $\phi$ e k u, an intensifying reflexive construction. When it's an adjective, it will show agreement with the subject using A-series markers.

Subject-oriented adjuncts occur most often after the verb, but sometimes occur instead between the tense auxiliary and the verb, and that doesn't seem to make any obvious semantic or pragmatic difference.

Object-oriented adjuncts are always after the verb, but characterise the object in about the same way as subject-oriented ones characterise the subject. Here's an example with a subject-oriented adjective:

#### (5.2) bwíní škó tá óφό gúp a kwómá ho o télír aa

```
bwíní σ- kó ó- tá óφό ó- gup = a kwómá
Bwini 3san.a- pst pred- lv jump pred- enter = 3s.b river
ho σ= télír a
DEF 3san.a= naked ptcl
"Bwini jumped into the river naked"
```

Adjectives used this way are often described as depictive secondary predicates.

### 5.1.3.4 Manner adjuncts

Manner adjuncts always follow the verb, and in informationally neutral sentences they also follow the object, if one is present. Manner adjuncts are very often reduplicated adjectives—it's the reduplication that distinguishes them from argument-oriented adjuncts.

Besides the difference in form, there's an important semantic difference. In "don't go gentle into that good night," "gentle" is a subject-oriented adjunct, and what it recommends is an attitude; if it were "don't go gently," "gently" would be a manner adverb, and it would be recommending a violent death.

### 5.2 The nonverbal copula la

Noun and adjective predicates that don't require a modal or aspectual clitic can use the nonverbal copula **lo**. This can be used with either a past or a present time reference. Like this:

### (5.3) jablá ló θarubaat aa

```
jablá ó- lo θarubaat a
Jabla PRED - COP hunter PTCL
"Jabla is (was) a hunter"
```

The copula cliticises onto a predicate noun (though I don't show this in glossed examples).

When the predicate is an adjective, a B-series pronoun agrees with the subject. Though syntactically it's a dependent of the adjective, it cliticises onto the copula.

#### (5.4) bwíní ló a lóhi aa

```
bwíní ó-lo = a lóhi a

Bwini PRED-COP = 3s.B asleep PTCL

"Bwini is asleep"
```

The subject cannot be dropped from these sentences, even if it is obvious from context and even if adjective agreement makes it redundant. For example, the subject pronoun is required in (5.5).

#### (5.5) **ómó ló m mííkí lóð**

```
ómó ó- lɔ = m mííkí lɔ "I'm parched!"
```

These clauses always stay very simple. If they contain an adjunct at all, it is almost always peripheral, and nothing can move around for information-structural purposes. To get at all fancy, you need to use the copular verb **hí** 

### 5.3 Information packaging

I'm interested here in ways in which a sentence can be manipulated to convey information structure (broadly speaking). For an English speaker, what's most striking is probably the very different role played by intonation, the significance of the position immediately after the verb, and the way focus marking interacts with final particles.

### 5.3.1 Topic movement

Many constituents of a sentence can be topicalised by being moved before the subject (unless it is the subject being topicalised), and followed by **lo**. (This **lo** is etymologically the same as the one that's used as a copula.) This movement is subject to island effects, though at least prepositions can be pied piped. Here's an example:

#### (5.6) goom o lo mgé kpá a aa

```
gɔɔm = hɔ = lɔ m- ŋɛ́ \acute{\circ}- kpá = a a goomfruit = DEF = TOP 1s.A - HOD_PST PRED - eat = 3s.B PTCL "The goomfruit I ate"
```

The **15** cliticises onto the topicalised item, and will undergo vowel harmony after a [+ATR] vowel. **15** topics are not set off by pause, and must follow any clause-initial peripheral adjuncts, including scene-setting and topic-shifting topics.

When it's an object that's been topicalised, the verb complex must include an object marker.

I call this topicalisation, but it's primary use is to help indicate focus. I'll get to the details in a bit.

#### 5.3.2 Focus movement

Tswóló focus movement targets a position immediately following the verb complex, which can contain an object marker but not a full NP object. Here's an example showing a focused adjunct:

### (5.7) agél šné tá a ípí píì loo

```
agél 5-né 6-tá = a ípí 6-pí lo Agel 3sAN.A-HOD_PST PRED-LV=3s.B quickly GEN-run PTCL "Agel ran quickly!"
```

(I'll explain the genitive case on the object in a moment.)

Like topic movement, this is subject to island constraints, but at least simple pied piping is allowed. But focus movement involves some further complications as well.

When a subject is focus-moved, the subject marker changes to what I've called the WH form,  $\acute{\mathbf{u}}$  or  $\mathbf{u}$  (the first in A-series contexts, the second in B-series contexts; there's no number distinction). This is an instance of what's sometimes called wh agreement or antiagreement. Here's what it looks like:

### (5.8) úkó túta a jablá múlu ho noo

```
ú- kó ó- túta = a jablá ó- mulú = hɔ nɔ
WH.A- PST PRED- start = 3s.B Jabla GEN- feud = DEF PTCL
"Jabla started the feud"
```

(Sentences with a topicalised subject get regular subject-marking.)

When there's an overt object, and it has not been topicalised, but something other than the object undergoes focus movement, then the verb complex must include an object marker and the object must be marked with genitive case; it will occur after the focus-moved element (not necessarily immediately after it).

When there's an overt object, and nothing else has been focus-moved to stand between the object and the verb, the object can be interpreted as if it had been focus-moved only if it is separated from the verb by an object marker and it does not take genitive case. And it *must* be interpreted as if it had been focused-moved if those conditions obtain and in addition some other constituent has been topicalised. Here's an example with a topicalised subject:

#### (5.9) ómó lo mijěp a náá aa

```
ómó = l_{2} m = l_{2} é - l_{2}Ep = a l_{3} a l_{3} = TOP l_{3}A = l_{4}PFV = l_{4}PRED - l_{5}PRED - l_{5}
```

"Topicalisation" is really a misnomer for what's going on here, since it's sole purpose is indicating that the object should be interpreted as focus-moved.

### 5.3.3 The interpretation of focus

In some languages, dedicated focus positions or focus constructions are tied specifically to what's been called exhaustive focus. English clefts have this property: if I say it was Bwini who ate my goomfruit, I mean in part that no one other than Bwini ate it.

Focus movement in Tsw5l5 does not have this property. However, this does not mean that focus movement can be used merely to signal new information. On the analysis I currently favour, focus movement always helps specify a set of alternatives that are relevant to the interpretation of the sentence—either because something within the sentence itself must be related to a set of alternatives, or because this helps relate the sentence to the discursive context.

Suppose someone asks, "Did Bwini eat the *goomfruit*?" Then it would be reasonable to answer, "No, he ate the fish." But it would make no sense to answer, "No, he juggled the goomfruit." That's because the emphasis in the question on "goomfruit" makes it clear that the questioner is interested in what Bwini ate, and not (for example) in what Bwini did with the goomfruit. A bit more abstractly, the focus on "goomfruit" indicates that the salient alternatives include such things as Bwini eating fish, or Bwini eating tree rat: alternatives that can be generated by replacing "goomfruit" with some appropriate substitution.

Exhaustive focus, as well as contrastive or corrective focus, can be thought of as particular subtypes, ones in which alternatives are relevant not because of something internal to the sentence but because of the discourse context. Purely informational focus cannot really be thought of this way: new information is new because it's not yet been mentioned, not because of any role it plays in computing a set of alternatives.

If I am right to say that in Tsw5l5 focus movement never expresses purely informational focus, this is because of the role certain final particles can play in conveying information structure. I'll concentrate here on **l3**, which tends to convey something like surprise, and is often used when conveying striking news. There is frequently focus movement in utterances that use **l3**, as in this example:

#### (5.10) útá tablá kéén loo

```
ú = ó - ta jablá kéén lo
WH.A = PRED - be_at Jabla here PTCL
"Jabla is here!"
```

The final particle indicates that the sentence presents surprising or striking news, and focus movement of the subject tells us that what's striking is that it's Jabla who's here. This will generally be appropriate only if there are some salient alternatives—other people who are or might have been here—that wouldn't be similarly striking.

Note that (5.10) could be used in an out-of-the-blue context. This makes it unlike an English cleft, and also implies that focus movement isn't being used

simply to convey new information—since in an out-of-the-blue context, the whole thing would be new information.

Default focus, which is what you get if there's no focus movement, differs depending on the presence and coding of the object. If there's no object, the focus is on some constituent that includes the verb. If the object is directly after the verb, with no intervening subject marker, then the focus is on some constituent that includes both the verb and the object. If the object is separated from the verb by an object marker and is not marked with genitive case, then the focus is on some constituent that includes the object. And if the object has genitive case, then the focus is on some constituent that includes the verb. In all cases, anything that has been topicalised is also excluded from the focus.

Default focus need not be involved in any computation of alternatives, it might just represent new information.

The analysis I'm presenting here provides no way to put narrow new-information focus on any constituent other than the object. Where you might expect to find it, you always seem to get a final particle that can be interpreted as sensitive to alternatives, and which I suppose licenses focus movement.

#### 5.3.4 Intonation

I assume that intonation plays a role in expressing focus, and perhaps in cases of default focus in distinguishing between (for example) object and VP focus. But intonation plays this role without assigning any tones, so the way it works is very different from what most English speakers are used to. Speaking very generally, it's not tones that matter here so much as such factors as tempo, rhythm, absolute pitch, and pitch range. But I know very little about how this works, so will leave it at that for now.

#### 5.4 Multi-verb constructions

There are multi-verb constructions of a few different types. Since we're still talkig about simple clauses, these constructions may invole multiple verbs, even multiple verb phrases, but they don't involve multiple clauses. That's evident first and foremost in the fact that only one subject will occur.

I'm not interested here in verbs such as **bí** 'start' or **dár** 'want' that can take a verb phrase as complement. The constructions at issue here are ones in which, intuitively, neither verb selects the other.

Probably all four constructions I'll be discussing could be considered serial verb constructions according to someone's definition, but I'll use that label only for the first.

#### 5.4.1 True serialisation

In a true serial construction, two or more verbs combine in such a way that they have a single argument structure, with one subject and at most one object.

The argument structure of the whole is computed by identifying the arguments selected by each component verb, in a way that I hope is intuitive: with two transitive or two intransitive verbs you'll identify corresponding arguments, and you'll identify the one argument of an intransitive verb with the subject of a following transitive verb or the object of a preceding transitive verb.

Semantically, the whole complex will describe a single event. This may have a clear temporal or causal structure, and likely there'll be an obvious sense in which the different verbs describe different parts of this structure. Here's a common sort of case:

### (5.11) jablá škó gwíí ba a i6wé ho aa

```
jablá ɔ- kɔ́ ó- gwií ba = a ibwé = hɔ a

Jabla 3sAN.A- PST PRED- chop go_down = 3s.B tree = DEF PTCL

"Jable chopped down the tree"
```

Jabla chopped and the tree fell, and obviously you can think of those as two events, but this sentence presents them as parts of a single, causally- and temporally-united whole.

As far as I can tell, syntax treats serialised verbs as if they were true compounds, and maybe that's what they really are. Nothing can come between them, and there's a single focus position after the last of them. The distribution of high tones also indicates that there's only one predicate; note the absence of a high tone on **ba** 'go down' in (5.11), for example.

Definitions of serial verb constructions often make it a requirement that the verbs cannot be separately negated. Tsw5l5 allows a sort of exception to this: at least sometimes, the final verb can be negated with **mi**-. I think this is possible only if the final verb indicates a result, but I'm not completely sure.

I think serial verb contructions usually do have resultative semantics, but that's not the only sort of case:

### (5.12) bwíní škó bwá kpá a díl a aa

```
bwíní ɔ- kɔ́ ó- bwá kpá = a díl = hɔ a

Bwini 3sAN.A- PST PRED- cook eat = 3s.B fish = DEF PTCL

"Bwini cooked and ate the fish"
```

The fact that the object is only mentioned once is a sign that this is a true serial construction rather than an implicit conjunction (§5.4.4). Indeed, if you put something between the verbs, you'd have to switch to an implicit conjunction, and then each verb would require an object (and the overt object would go with the first verb). Also, focus movement is possible here, unlike in implicit conjunctions:

### (5.13) úkó bwá kpá a bwíní dîl a aa

```
ú- kó ó- bwá kpá = a bwíní ó- díl = hɔ a
WH.A- PST PRED- cook eat = 3s.B Bwini GEN- fish = DEF PTCL
"It was Bwini who cooked and ate the fish"
```

The requirement that clitic groups be at least bimoraic can complicate serial verb constructions. For example, this is prosodically ill-formed:

### (5.14) \*bwíní škó kpá we ná aa

```
bwíní ɔ- kɔ́ ó- kpá we ŋá a 
Bwini 3sAN.A - PST PRED - eat away snake PTCL 
Intended: "Bwini ate up the snake"
```

The problem is that **we** 'use up' will form a prosodic compound ( $\S1.4.3.4$ ) with **ŋá** 'snake', leaving **kpá** as a stranged monomoraic verb. The solution in this case is to reformulate with what I take to be the applicative construction:

#### (5.15) bwíní škó kpá ná we ná aa

```
bwíní ɔ- kɔ́ ó- kpá ŋá we ŋá a 
Bwini 3sAN.A- PST PRED- eat snake away snake PTCL 
"Bwini ate up the snake"
```

This allows both verb-object pairs to form prosodic compounds. (The second instance of the object could be replaced by a clitic pronoun.)

### 5.4.2 The applicative construction

The applicative construction allows you to add objects to an event description, which is often useful, since Tsw5l5 verbs are at most monotransitive.

Here's a very common sort of example:

### (5.16) agél škó swá a náá jí a jablá aa

```
agél ɔ- kɔ́ ó- swá = a ŋá ɟí = a ɟablá
Agel 3sAn.A- PST PRED- give = 3s.B snake give = 3s.B Jabla
a
PTCL
```

Here, the combination <code>swá...ji</code> functions roughly like a ditransitive <code>give</code> verb. In an applicative construction, one of the verbs will normally be one that's highly grammaticalised for just this purpose. <code>ji</code> 'give', for example, is often used to add a recipient; <code>kpó</code> 'help' is used to mention someone on behalf of whom the subject is acting; <code>ni</code> can add a destination, and so on. Very often, when English would use a preposition phrase as a VP adjunct, Tswóló will prefer the applicative construction. The main exceptions are that sources of motion and purely circumstantial locations are usually encoded with preposition phrases.

As in the true serial construction, you only get one instance of the predicatemarking high tone. There's a difference, though: in the applicative construction, you wouldn't normally want to think of the two verbs as describing even different subevents, there's just a single event, with multiple participants.

<sup>&</sup>quot;Agel gave a snake to Jabla"

The two verbs can come in either order, so this is also possible:

### (5.17) agél škó jí a jablá swá a náá aa

"Agel gave Jabla a snake"

I've translated the two examples somewhat differently, to suggest that  $\eta \acute{a}$  'snake' is the true object in (5.16) while  $\jmath abl \acute{a}$  'Jabla' is in (5.17). This is actually true. In the applicative construction, focus movement can only target the position after the first verb, and the object of the second verb cannot be focus-moved. That together with various word-order possibilities suggests that the second verb-object pair is some sort of adjunct. Here's an example in which the second verb-object pair has actually been focus-moved:

### (5.18) jablá škó cík a dwa a zimi kú náá loo

"Jabla cut the snake with her teeth"

And here's one with narrow focus on the object of the first verb, in which the second verb-object pair has been topicalised:

### (5.19) swá ná on lo agél o þi jí mi ómó aa

```
swá ná = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5 = 5
```

"It's me that Agel will give the snake to" (5MOYD 1562)

Note in both cases that though the object cannot be moved out of the second verb-object pair, it can pied pipe the verb along with it.

Focus movement of other constituents can only target the position following the first verb in an applicative construction:

### (5.20) úkó jí a ólí jáblá swá ná dáà

```
ú- kó ó- jí = a ólí ó- jablá swá ná da
WH- PST PRED- give = 3s.B who GEN- Jabla give snake PTCL
"Who gave Jabla a snake?"
```

The fact that only the object of the first verb can be focused together with the fact that the verbs can be reversed makes the Tswóló applicative construction a bit analogous to the symmetrical voice constructions found in many Austronesian languages. Neither order of the two verbs is obviously more basic than the other, and the order determines which argument will be treated as the true object of the construction for the purposes of focus, topicalisation, and (it will turn out) questions.

Er, all that discussion assumes that only two verbs can be involved in the applicative construction. Actually you could have more than that; it's still only the first verb's object that's treated as the object of the construction as a whole.

### 5.4.3 The pivot construction

The pivot construction combines two verbs and an argument that's the object of the first verb and the subject of the second, often with causative semantics. When the second verb is intransitive, sometimes you can use the true serial construction instead, but when the second verb is transitive, you need the pivot construction.

Unlike the true serial construction, the pivot construction does not really imply that the cause and the effect combine to form a single larger event. For example:

#### (5.21) jablá škó twé a bwíní níp goom aa

```
jablá ɔ- kɔ́ ó- twé = a bwini ó- nip

Jabla 3sAn.A - PST PRED - send = 3s.B Bwini PRED - gather

goom a

goomfruit PTCL
```

"Jabla sent Bwini to gather goomfruit"

Here, the sending and the gathering are clearly distict events.

In a pivot construction, the high tone that signals a predicate occurs with both verbs, though as usual this is only evident with verbs that have an initial low tone (so, not in that example).

Also, each verb in a pivot construction is associated with its own focus position. Still, I suspect that focus movement of the lower object to the higher verb is reasonably common. That would look like this:

### (5.22) agél škó twé a náá bwíni níp a loo

<sup>&</sup>quot;Agel sent Bwini to gather snakes"

Maybe it would be confusing to put the second object after the first verb? I'm not sure, and do not have time to check if there are natural languages that handle things this way.

### 5.4.3.1 The po causative

The verb **p5** 'do' is very often used as the first verb in a pivot construction, to the point where you might well think that it's been grammaticalised as a causative auxiliary. A striking feature of **p5** causatives is that the second element can be an adjective instead of a verb. The adjective takes A-series agreement.

### (5.23) goom o e é pŏ a bwíní o gbaló aa

```
gɔɔm = hɔ \varepsilon = \hat{e} = \acute{o} - pɔ = a bwíní goomfruit = DEF 3sIN.A = HAB = PRED - CAUS = 3s.B Bwini o = gbal\acute{o} a 3sAN.A = happy PTCL
```

### **5.4.4** Implicit conjunctions

Tsw5l5 lets you conjoin verb phrases without any overt conjunction, and speakers often do this when describing either simultaneous or sequential actions. Like this:

#### (5.24) bwíní štíí xíí xíí tá póm aa

```
bwíní ɔ- tíí ó- xíí xíí ó- tá póm
Bwini 3san.a- hest_pst pred- sing song pred- lv dance
a
ptcl
```

"Bwini sang and danced"

This construction does not allow focus movement at all.

### 5.5 Non-declarative clauses

This is just a quick survey.

### 5.5.1 Questions

I'll distinguish three kinds of questions: polar questions, content questions, and topic questions. In all cases I'm interested here only in genuinely information-seeking questions; if anything distinctive happens with rhetorical questions or knowledge-testing questions, I don't know what it is.

<sup>&</sup>quot;Goomfruit makes Bwini happy"

#### 5.5.1.1 Polar questions

Polar questions take the final particle **wa**, which always gets a high tone. That high tone represents the only use of pitch to indicate polar questions. And besides the final particle, polar questions do not differ from declarative statements. Here's a simple example:

### (5.25) gaan ló jó wáá

```
gaaŋ ´- lɔ jɔ́ wa
DEM PRED - COP water PTCL
"Is that water?"
```

Focus movement can be used to specify what exactly is being questioned. For example, if you can see that someone is arriving and want to confirm that it's Agel, you might ask this:

#### (5.26) ú gú agél wáá

```
ú = ó - gú agél wa
WH = PRED - arrive Agel PTCL
"Is it Agel who's arriving?"
```

### 5.5.1.2 Content questions

Content questions require a question word in the focus position after the main verb. (The main question words were given in Table 2.3.) The syntax is basically the same as with regular focus movement, except that content questions normally get the final particle **da**, with a falling tonal contour.

An object question looks like this:

#### (5.27) le i kpå a ree dáà

```
l\epsilon = i = 6 - kp\acute{a} = a re da 2s.A = IPFV = PRED - eat = 3s.B what PTCL "What are you eating?"
```

Subject questions induce *wh* agreement, and if the clause is transitive the object gets displaced and must take genitive case:

### (5.28) útíí níp a ólí góòm on dáà

```
ú- tíí ó- níp =a ólí ó- goom = on
WH- HEST_PST PRED- gather = 3s.B who GEN- goomfruit = PROX
da
PTCL
```

"Who gathered this goomfruit?"

The question word must occur in the postverbal focus position even if it's not seeking an exhaustive answer:

### (5.29) ú gbê a ólí tswóló dáà

```
ú = ê = 6 - gb\epsilon = a 6 - sw6 da WH = HAB = PRED - speak = 3s.B who GEN - 6 - Tsw6 - PTCL "Who speaks Tsw6 - Tsw6 - PTCL"
```

You could answer that question satisfactorily by mentioning Bwíní, even though there are plenty of other people who can speak Tswóló.

Questions are subject to island constraints, but at least simple sorts of pied piping are possible. For example, prepositions can be pied piped, and (like in the following examples) so can verbs in the applicative construction:

### (5.30) lěné cík a dwa a ree ná ho dáà

"What did you use to cut the snake?"

With applicatives, though, it's more common to simply swap the verbs:

### (5.31) lěné dwá a ree çík a ná ho dáà

"What did you use to cut the snake?"

### 5.5.1.3 Topic questions

This is easy: for a topic question, you just give the noun, and follow it with the final particle  $d\epsilon$ , which gets a plain low tone. Like this:

### (5.32) **όbí dεε**

óbí dεε child PTCL

"What about the children?"

### 5.5.2 Imperatives

For a basic imperative, simply start with the verb, and use an appopriate final particle:

### (5.33) **nóŋ tám loo**

```
nóŋ tám lo come return PTCL "Come back!"
```

Imperatives cannot use regular clausal negation, instead you use the verb **balo** 'avoid':

### (5.34) bálo gból a aadwí kíí kíí loo

```
ó - balo gból = a aadwí kíí kíí lo
PRED - avoid face = 3s.B Aadwi urinate urine PTCL
"Don't urinate towards Aadwi!" (5MOYD 1529)
```

As you can see, the verb automatically gets an initial high tone even if it does not have one lexically.

An imperative can use the imperfective particle i, to tell the listener to keep doing something:

### (5.35) i gbě ígbé loo

```
ì = ΄- gbέ ígbέ lo
IPFV = PRED - speak words PTCL
"Keep talking!"
```

### 5.5.3 Hortatives

A hortative differs from a regular declarative only in that the B-series of bound pronouns is used to cross-reference the subject, not the A-series.

### (5.36) goom lε a hí a lulum áá

```
gɔɔm = lɛ a = 6 - hi = a lulum a goomfruit = 2s.A 3s.B = PRED - be = 3s.B sweet PTCL "May your goomfruit be sweet!"
```

You can use a hortative to express a somewhat impatient imperative:

### (5.37) li ní áá

# Some reading

- I ended up doing a fair bit of reading while trying to sort out various things in Tsw5l5, here are some of the main things I've relied on, in case your interested.
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SOME READING 60

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- McPherson, Laura, and Jeffrey Heath. "Phrasal grammatical tone in the Dogon languages: The role of constraint interaction." *Natural Languages & Linguistic Theory* 34 (2016): 593–639. doi:10.1007/s11049-015-9309-5.
- Otelemate, Harry G., and Larry M. Hyman. "Phrasal construction typology: The case of Kalabari." *Studies in Language* 38, no. 4 (2014): 649–689. doi:10.1075/sl.38.4.01hym.

# Wordlist

This is a simple word list without much depth. I hope the sort order is intuitive; characters that are not in the roman alphabet sort after the ones they most remind me of. Among intransitive verbs, I distinguish between **vi.ag**, the unergative ones, and **vi.pt**, the unaccusative ones.

```
a
```

**áák**έ n tent

```
aakwí adj (a) peculiar, eccentric (b) unfamiliar
abí adv now
abúkpo n eagerness, willingness
a∳al adv still
alón pn it (third person singular pronoun, inanimate)
ára n coconut
aswέ pn they (third person plural pronoun, inanimate)
átán 1 n time, occasion 2 pn sometime
  b
ba vi.pt to descend, to lower
baat vt to hunt
bágalába ideo lumbering along
bálí n rock
balo \nu to avoid
  This is used to form negative imperatives.
bétó adj long
```

**béwen** *n* clumsy person, klutz

**bí**  $\nu$  to start

```
This takes a complement (either a noun or another verb phrase) describing an activity. With other sorts of complement, you might want tútá.
```

```
bwá 1 vt to cook 2 vt to prepare
   6
6ádi vt to translate
   Cf. θαιυβάσι 'translator', kάθάι ύβασι 'serve as translator'.
báte pn you (second person singular pronoun)
6éé pn you (second person plural pronoun)
6i vt to find
bobélé n tree rat (species)
bodídi n frog (species)
6666 ideo a substantial splash (like from a rock)
65 ideo drip, drop
6óp ideo a small splash (like from a pebble)
   d
dár vt to want, to like, to enjoy
   With a plain VP as complement or an infinitive, this means 'to want'; with a verbal
  noun complement, it means 'to like, to enjoy'.
díí n they (third person plural pronoun, animate)
díl n fish
dot vi.pt to die
dwa vt to use
dwódzε vt to take revenge on
   Cf. jadze.
dwót vt to kill
   dz
dzaa vt to fish for
dzímí vt to nibble on
   Cf. zímí 'tooth'.
dzwú vi.pt to swerve, to change direction suddenly • e dzwú εφε gε
húú fortunately
```

ď

dîì ideo falling

do lv ■ do wáár to swim

ð

ðák vt to scold

**ðuura** n cave

ðwók vt to curse

e

élwa n relaxation

Cf. lélwa.

épo adj green

ε

εφε n body

This often gets used as a sort of dummy object in what you might think of as possessor raising constructions. This is common with monomoraic unaccusative verbs when prosody requires them to take an object, as well as to express something akin to a middle voice.

**égbá** pn we (first person plural pronoun, exclusive)

ékal adj awake

**έtwόrυ** *n* pride, honour

ф

 $\phi \acute{\mathbf{u}}$  1 vi.ag to blow 2 n breath

g

gaan pr that

ge n

This to be a dummy noun, like English "one" in "the red one."

geen pr this

glólo vt to charm

```
By being charming, not with magic. Presumably derived from gólo 'smile'.
gólo n smile
goomfruit
gú vi.pt to arrive
gup vt to enter
gwací conj but, however
gwíí vt to chop (e.g., wood)
   gb
gbaló adj happy
gbέ vi.ag to speak, to talk
gbó vt to lower
gb5l vt to face (e.g., a direction)
gbóót vt to hunt (a territory)
   h
hí v.cop be
   This is the verbal copula.
hóŋmá adj proud
hó vi.pt to open
húú adj good, fine
   i
i6wé n tree
ígla vi.pt to boil
ígbέ n words, language
ijadzε n revenge
íkpá n food
  Cf. kpá.
ílágo n pig rabbit
  This is something like a chevrotain (mouse deer).
ilidííl adj fishlike, slippery, difficult to grasp
   Cf. díl.
ípí adv (a) quickly (b) immediately
ití pn he, she, they (third person singular pronoun, animate)
```

```
I
ıdıkám adv completely, totally
ılıbálí adj rocklike, imperturbable, unflappable
   Cf. bálí.
ılınahal adj nestlike, welcoming, intimate
   Cf. nahal.
iró vi.pt to bend, to curve, to change direction
   j
jó n water
   ŧ
jadzε vi.ag to take revenge
  This often occurs with the cognate object iadze 'revenge'.
μερ vt to look for
jí vt to give
  The object is the recipient. For the item given, use swá.
jíkal vi.pt to wake up
   k
káán adv there
kak vt to break
kal vt to see, to notice
kása vt to chew on
káθáróβadi vi.ag to serve as translator
  Cf. Oarubádi.
kέέn adv here
kí vt to pinch
kíí 1 vi.ag to urinate 2 n urine
kró vi.pt to kneel
koo 1 vi.pt to live, to stay 2 v.aux auxiliary used in the periphrastic
imperfective
kwata n branch (of a tree)
kwómá n river
```

```
kp
```

```
kpá vt to eat
kpú vt to help
   This often occurs in the applicative construction (§5.4.2); the sense is that you do
   something for or on behalf of the person, not that you assist them.
kpwó vt to feed
   l
lagólo adj smiling, charming
   Cf. gólo.
lapo adj tall, high (up)
lélwa adj relaxing
   This describes an activity, place, or companion that can make you feel relaxed.
   Cf. élwa.
lεφε adj charismatic, forceful (in personality)
   Cf. εφε.
15 1 ptcl uninflecting copula 2 ptcl topic marker 3 conj and
   You might prefer to think of this as two or three distinct words that share a phono-
   logical form. Note that when it's used as an uninflecting copula, it must surface
   with a high tone.
láhi adj asleep
lolom adj sweet, flavourful
   Cf. vlum.
   m
máádε ideo (a) intense, unpleasant smell (b) extraordinary flatulence
mádesi vt to disgust
mégí n hatred
                    ■ tsu megí to complain
mεφε adj invisible, subtle
mihónmá adj shameless
   Cf. hónmá.
mííkí adj parched
   Cf. kíí.
miiwího adi uninterested
   Cf. wiiho.
```

```
mííwiho vi.pt to lose interest
mıtáhil adj disorganised
mójól n (a) path, track (b) guidance, assistance
mulú n feud
mwasi ptcl only
   n
nahal n nest
nélét n raddish
nεεk n after, behind
   This is often used as a relational noun, with either a genitive or clausal complement
   (an neek ibwé ho 'behind the tree', an neek du... 'after...').
ní vi.pt to go
níp vt to pick, to gather (fruit)
no_{\mathbf{j}} 1 n place 2 pn somewhere
nóŋ vi.pt to come
   ŋ
ŋá n snake
neewiho adj interested
  Cf. wíího.
   ηm
ηmεεwεl n darling
ŋmóó n giant
   0
obé adj short in stature
óbí n child, offspring
oku pr oneself
```

This is the reflexive pronoun. It does not vary with person, number, or gender. It has a clitic variant, =ku, which is used for reflexive possessors.

### ■ εφε óku adv

This is an intensifier, in quite very similar to intensifying uses of English reflexive pronouns.

```
mkó εφε kú po a aa
               kź
                    εφε
                          =kú po =a a
          1s.a pst body refl do 3s.b ptcl
          "I did it myself"
ómó pn I (first person singular pronoun)
óŋé adv today
oo adj big
otí adv already
   ၁
όφό n jump
               ■ tá óφó to jump
ókwósi int how many, how often
ólí int who
on det this
on det that
ətím n thunder
  p
paa vi.pt to sit
pádidíci ideo raining steadily
pákádi n shape, form, outline
pí n run
            ■ tá pí to run
po vt to do
póm n dance
               ■ tá pɔŋ to dance
  ſ
rá n head
rára adj one
ce int what
               • rε átáŋ int when
réél ptcl even
rodu int why
ró n egg
ráká int how much, to what extent
rwíkí ideo tottering, something tall on the verge of falling over
```

S

 $tsu\phi a n$  fool tsu vt to put

```
sák vt (a) to count (b) to measure (c) to assess
selí int how
sóm vt to drop, to lose
sόὸwε n sweat
swá vt to give
   The object is the item given. For the recipient, use jí.
   Ç
çîk vt to cut
çoo vt to suck
çwóò vt to suckle
   t
ta vi.pt to be at, to be located
tá lv

    tá όφό to jump

                               • tá pí to run
táhil n pattern
tám vi.pt to return, go back
táram vi.pt to rain
   This most often takes j5 'water' as its subject, which normally takes the definite
   article in this context.
tázá vt to complicate, make complicated
télír adj naked
tòóló n beans
tútá vt to start, to initiate
tuki n reason (for doing something)
twé vt to send
   This is often used in pivot constructions.
   ts
tsája n vine
tsélé pn we (first person plural pronoun, inclusive)
tsi 1 n thing, part 2 pn something
```

θ

 $\Theta$ ár 1 *n* person 2 *pn* someone

θacuβádi n translator

There are no professional translators of course. This sometimes gets used of someone who knows a lot of languages (compare "linguist"). The derived verb káθáróβadī 'serve as translator' is more common. Cf. also βádī.

и

ubí n hilludwa adj sickúú 1 conj when, while 2 prep during

U

**olom** *n* sweetness, flavour

β

βáam vt to squeeze βέη vt to trap

w

**wálowi** *n* cooking pot **we** *vt* to use up, do away with

**wééla** n mind, idea, intention • e wéélá ku intentionally, on purpose wífho n interest

This is the attitude: it's the interested person that has **wíího**, not the thing they're interested in. This can take a complement in **e**: **wíího e dza dííl** 'interest in fishing'. Cf. neewího, miiwího.

**wowon** 1 n cloud, fog 2 n atmosphere, ambience

 $\boldsymbol{x}$ 

xíí 1 vi.ag to sing 2 n song
xúp vi.ag to cough
xwó vt to blow on
Cf. \( \phi \text{û} \text{û} \).

Z

**zíhá** adv right away, right then **zímí** n tooth